

## Green Bond Endorsed Projects Catalogue (2021 Edition)

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## Green Bond Endorsed Projects Catalogue (2021 Edition)

Sector	Program	Description/Condition
<b>1. Energy Saving and Environmental Protection Industry</b>		
1.1 Energy Efficiency Improvement	1.1.1 Manufacturing of Energy Efficient Equipment	1.1.1.1 Manufacturing of Energy-saving Boilers
		1.1.1.2 Manufacturing of Energy-saving Furnace/Kiln
		1.1.1.3 Manufacturing of Energy-saving Pumps and Vacuum Equipment
		Manufacturing and trading of fuel power plant boilers, industrial boilers, marine boilers and other relevant equipment of blast furnace gas, biomass molding fuel and solid combustible waste. Among them, the energy efficiency of industrial boilers should meet or exceed Level Two or above of the <i>Energy Efficiency Limits and Energy Efficiency Grades for Industrial Boilers</i> (GB 24500). The energy efficiency of other boilers should meet or exceed the target requirement of the thermal efficiency index of the relevant equipment technical specifications. All boiler equipment should meet the requirements of the <i>Boiler Air Pollution Emission Standards</i> (GB 13271) and local requirements for boilers' emission.
		Manufacturing and trading of metallurgical heating furnaces, non-electric metal treatment furnaces, industrial electric furnaces, industrial Kiln and other energy-saving furnaces/Kiln using high-temperature air combustion, oxygen-enrichment combustion, and waste heat utilization technologies, as well as the equipment like energy-saving furnace burners.
		Manufacturing and trading of energy-saving pumps, energy-saving vacuum drying equipment, energy-saving vacuum Kiln and other relevant equipment. Among them, the energy efficiency of energy-saving pumps should meet or exceed Level One of energy efficiency standards or relevant energy saving evaluation levels.

Sector	Program	Description/Condition
	1.1.1.4 Manufacturing of Energy-saving Gas Compression Equipment	Manufacturing and trading of energy-saving air compressors, compressors for air conditioners and other relevant equipment. The energy efficiency of the equipment should meet or exceed Level One of the national standards including the <i>Energy Efficiency Limits and Evaluation Value of Energy Conservation for Positive Displacement Air Compressors</i> (GB 19153) and the <i>Energy Efficiency Limits and Grades of Fully Enclosed Motor Compressor for Air Conditioners</i> (GB 35971). Other energy-saving air compression equipment should meet the corresponding energy efficiency requirements.
	1.1.1.5 Manufacturing of Energy-saving Hydraulic and Pneumatic Pressure Equipment	Manufacturing and trading of energy-saving hydraulic and pneumatic power generation machinery and components.
	1.1.1.6 Manufacturing of Energy-saving Blowers and Fans	Manufacturing and trading of energy-saving ventilator, blower, industrial fan, ventilation hood, circulating air hood and other relevant equipment. The energy efficiency of the equipment should meet or exceed Level One of the national standards including the <i>Energy Efficiency Limits and Energy Saving Evaluation for Ventilators</i> (GB 19761) and the <i>Energy Efficiency Limits and Energy Saving Evaluation Value for Centrifugal Blowers</i> (GB 28381). Other energy-saving air compression equipment should meet the corresponding energy efficiency requirements.
	1.1.1.7 Manufacturing of High-efficient Generators and Generator Sets	Manufacturing and trading of energy-saving generators, generator sets and their special parts.

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	1.1.1.8 Manufacturing of Energy-saving Motors	Manufacturing and trading of energy-saving AC, DC, AC/DC electrical equipment. The energy efficiency of the equipment should meet or exceed Level One of the national standards including the <i>Energy Efficiency Limits and Energy Saving Evaluation for Motor</i> (GB 18613), the <i>Energy Efficiency Limits and Energy Saving Evaluation for Permanent Magnet Synchronous Motor</i> (GB 30253), and the <i>Energy Efficiency Limits and Energy Saving Evaluation for High Voltage Three-phase Cage Induction Motor</i> (GB 30254). Other energy-saving electrical equipment should meet the corresponding energy efficiency requirements.
	1.1.1.9 Manufacturing of Energy-saving Transformers, Rectifiers, Inductors, and Electric Welding Machines	Manufacturing and trading of energy-saving transformers, mutual inductor, static converters, reactors, inductors, frequency converters, welding machines and other equipment. The energy efficiency of energy-saving electrical transformers should meet or exceed Level One of the <i>Energy Efficiency Limits and Energy Saving Evaluation for Power Transformers</i> (GB 20052). Other energy-saving transformers and reactors should meet the corresponding energy efficiency requirements.
	1.1.1.10 Manufacturing of Residual Heat, Pressure and Gas Exploitation Facilities	Manufacturing and trading of residual heat highly-recovering device for low-temperature flue gas, residual heat utilization device for the kiln, circulated water and residual gas recovering equipment based on heat pump, high-efficient heat exchanger, high-efficient accumulator, high-efficient condenser, and other relevant equipment. Among them, the energy efficiency of the heat exchanger shall meet the requirements of the relevant target standard. The utilization of residual energy should be carried out in accordance with the requirements of the <i>Evaluation Method of Industrial Residual Energy Resource</i> (GB/T 1028) and relevant national standards.

<b>Sector</b>		<b>Program</b>	<b>Description/Condition</b>
		1.1.1.11 Manufacturing of High-efficient and Energy-saving Household Appliances	Manufacturing, trading and consumption of household appliances such as energy-saving air conditioners, air-conditioning units, refrigerators, electric washing machines, flat-screen TVs, electric fans, etc. The energy efficiency of the energy-saving products should meet or exceed Level One of the national standards including the <i>Energy Efficiency Limits and Grades of Household Air Conditioners</i> (GB 21455), the <i>Energy Consumption Limits and Energy Efficiency Grades of Household Refrigerators</i> (GB12021.2), the <i>Water Efficiency Limits and Grades of Electric Washing Machines</i> (GB12021.4), the <i>Energy Efficiency Limits and Grades of Flat-screen TVs and Set-top Boxes</i> (GB 24850), and the <i>Energy Efficiency Limits and Grades of AC Electric Fans</i> (GB 12021.9)
		1.1.1.12 Manufacturing of High-efficient and Energy-saving Commercial Appliances	Manufacturing, trading and consumption of energy-saving copy machines, printers, fax machines, microcomputers, projectors, commercial refrigerating appliances, chillers, heat pump units, modular air conditioners and other commercial equipment. The energy efficiency of energy-saving equipment should meet or exceed Level One of relevant energy efficiency standards.

Sector	Program	Description/Condition
	1.1.1.13 Manufacturing of High-efficient Lighting Products and Systems	Manufacturing and trading of substrate, epitaxial wafer, light source, lighting products (light-emitting diode LED) and its manufacturing equipment, electronic ballast in the semiconductor lighting industry chain. The energy efficiency of the products should meet Level One of relevant energy efficiency standards, such as the <i>Energy Efficiency Limits and Grades of LED Products for Indoor Lighting</i> (GB 30255), the <i>Energy Efficiency Limits and Grades of LED Luminaires for Road and Tunnel Lighting</i> (GB 37478), the <i>Energy Efficiency Limits and Grades of LED Flat Lamp for General Lighting</i> (GB 38450), the <i>Energy Efficiency Limits and Grades of LED Flat Lamp for Tube Fluorescent Lamp</i> (GB 17896), the <i>Energy Efficiency Limits and Energy Saving Evaluation Value for High-pressure Sodium Lamp Ballasts</i> (GB 19574), the <i>Energy Efficiency Limits and Grades for Metal Halide Lamp Ballasts</i> (GB 20053), and the <i>Energy Efficiency Limits and Grades of AC Electronic Ballasts for Single Ended Electroless Fluorescent Lamps</i> (GB 29143).
	1.1.1.14 Manufacturing of Energy Measuring, Monitoring, and Controlling Equipment	Manufacturing and trading of energy-saving testing equipment, online energy measuring equipment, online energy detection equipment, thermal detection equipment, energy-saving automatic controlling equipment, temperature measuring equipment, flow measuring equipment, electricity metering equipment , thermal measuring equipment and other energy measuring, testing, monitoring equipment. Energy measuring equipment should comply with the requirements of the <i>General Rules for the Equipping and Management of Energy Measuring Instruments for Energy Consuming Units</i> (GB 17167).

Sector		Program	Description/Condition
	1.1.2 Industrial Energy Saving Retrofit	1.1.2.1 Energy-saving Transformation and Energy Efficiency Improvement of Boilers (Furnaces/Kiln)	Energy-saving technology of the boilers (furnaces/Kiln) is upgraded by replacing and upgrading device and equipment, upgrading technology, optimizing fuel and combustion adjustment; Energy-saving technology of fuel boilers (furnaces/Kiln) is upgraded by using clean energy, such as gas and renewable energy, and using waste heat from factories and thermal power from the power plants instead of coal, petroleum coke, residual oil and heavy oil, for the improvement of the energy efficiency of boilers (furnaces/Kiln).
		1.1.2.2 Energy Efficiency Improvement of Motor System	Energy-saving upgrading is carried out for the equipment or the comprehensive system of the motor system (including inner blower, pumps, compressors, transformers and other equipment) by device replacement, technology upgrading, and control system optimization for the energy efficiency improvement of the motor system.
		1.1.2.3 Utilization of Residual Heat and Pressure	Facility construction or technology upgrading for recycling energy resources such as low-grade residual heat and pressure in industrial production for electricity generating, industrial heating, residential heating or for reusing processing technology by saturated steam power generation technology, flue gas waste heat recovery and other related technologies.
		1.1.2.4 Optimization of Energy System	Energy-saving technology upgrading for energy efficiency improvement of the entire production system, with the collaborative optimization of energy flow, material flow, and information flow during industrial production and the efficiency improvement of energy cascade utilization, by technical measures including process flow optimization, system technology integration application, energy system design and control optimization. The above should meet the national standards such as the <i>Material Flow Analysis Technical Guide for Industrial Parks</i> (GB/T 38903) .

Sector	Program	Description/Condition
	1.1.2.5 Systematic Improvement on Energy Efficiency of Steam Turbine Generator Sets	Energy-saving technology upgrading of equipment or system such as the turbine flow passage, cold end system, heating surface and flue air system, operation control system, thermal and drainage system, and auxiliary motor, for the purpose of improving the energy efficiency of steam turbine generator sets.
1.1.3 Energy Conservation of Power Facilities	1.1.3.1 Renovation of Green Lighting	Energy-saving technology upgrading of high-efficient lighting products using LED , high / low pressure sodium lamps, metal halide lamps, three primary color double-ended tubular fluorescent lamps (Type T8 and T5), and other lighting facilities using natural light sources, both indoors and outdoors. The energy efficiency of the lighting products should meet Level One of the national standards, including the <i>Energy Efficiency Limits and Energy Efficiency Grades of LED Products for Indoor Lighting</i> (GB 30255), the <i>Energy Efficiency Limits and Energy Efficiency Grades of LED Luminaires for Road and Tunnel Lighting</i> (GB 37478), the <i>Energy Efficiency Limits and Energy Efficiency Grades of LED Flat Lamp for General Lighting</i> (GB 38450), the <i>Energy Efficiency Limits and Energy Efficiency Grades of LED Flat Lamp for Double-ended Fluorescent Lamps for General Lighting</i> (GB 19043), the <i>Energy Efficiency Limits and Energy Efficiency Evaluation Value for Single-ended Fluorescent Lamp</i> (GB 19415), the <i>Energy Efficiency Limits and Energy Efficiency Grades for Self-ballasted Fluorescent Lamps for General Lighting</i> (GB 19044), the <i>Energy Efficiency Limits and Energy Efficiency Grades of AC Electronic Ballasts for Single-ended Non-polar Fluorescent Lamps</i> (GB 29142), the <i>Energy Efficiency Limits and Energy Efficiency Grades for Self-ballasted Non-polar Fluorescent Lamps for General Lighting</i> (GB 29144), the <i>Energy Efficiency Limits and Energy Efficiency Grades for High-pressure Sodium Lamps</i> (GB 19573), the <i>Energy Efficiency Limits and Energy Efficiency Grades for Metal Halide lamps</i> (GB 20054), and the <i>Energy Efficiency Limits and Energy Efficiency Evaluation Value for Halide Tungsten Lamps</i> (GB 31276).



Sector		Program	Description/Condition
1.2 Sustainable Buildings	1.2.1 Green Building Materials	1.2.1.1 Manufacturing of Green Building Materials	Manufacturing and consumption of green building materials/products including energy-saving wall materials, thermal insulation materials for exterior walls, energy-saving glass, prefabricated building components, ready-mixed concrete, ready-mixed mortar, etc. The properties of products and technical specifications should meet national and industrial relevant technical requirements for green building materials/products. Glass products for exterior walls shall reduce light pollution and urban heat island effect.
1.3 Pollution Prevention	1.3.1 Manufacturing of Advanced Environmental Protection Facilities	1.3.1.1 Equipment Manufacturing for Water Pollution Prevention and Control	Manufacturing and trading of the treatment and recycling equipment of urban and rural household sewage and industrial wastewater, pollution prevention and treatment equipment of surface water and groundwater, maintenance and testing equipment of dredging machinery and drainage pipe network, supporting equipment of sponge city construction, collection and treatment equipment of urban rainwater, safety control and leakage control equipment of drinking water. The technical level of equipment is encouraged to meet specifications of the <i>Comprehensive Environmental Protection Catalogue (2017 Edition)</i> and the <i>Catalogue of Major Environmental Protection Equipment and Technology Encouraged by the State (2017 Edition)</i> , and should meet the national standards including the <i>Energy Efficiency Limits and Energy Efficiency Grades of Rotating Aerator for Sewage Treatment</i> (GB 37483), the <i>Energy Efficiency Limits and Energy Efficiency Grades of Submersible Pushing Mixer for Sewage Treatment</i> (GB 37485), and the <i>Technological Requirements for Evaluation of High Efficient Water Pollutant Control Equipment</i> (GB/T 38220).

Sector	Program	Description/Condition
	1.3.1.2 Equipment Manufacturing for Air Pollution Prevention and Control	Manufacturing and trading of the equipment for flue gas dedusting, desulfurization and denitrification, treatment of volatile organic pollutants (VOCs), post-treatment of motor vehicle exhaust, food industry fume purification , and the equipment for greenhouse gas emission reduction such as the power switching equipment for SF <sub>6</sub> replacement . The technical level of equipment is encouraged to meet specifications of the <i>Comprehensive Environmental Protection Catalogue (2017 Edition)</i> and the <i>Catalogue of Major Environmental Protection Equipment and Technology Encouraged by the State (2017 Edition)</i> , and should meet the national standards of the <i>Energy Efficiency Limits and Energy Efficiency Grades of Dust Collectors</i> (GB 37484), and the <i>Technical Requirements for Evaluation of High Efficient Air Pollutant Control Equipment</i> (GB/T 33017).
	1.3.1.3 Equipment Manufacturing for Soil Pollution Control and Remediation	Manufacturing and trading of equipment for mine reclamation and ecological restoration, remediation of soil pollution in agricultural land, and treatment and restoration of polluted land. The technical level of equipment is encouraged to meet specifications of the <i>Comprehensive Environmental Protection Catalogue (2017 Edition)</i> , the <i>Catalogue of Major Environmental Protection Equipment and Technology Encouraged by the State (2017 Edition)</i> , and other relevant policies and standards.

Sector	Program	Description/Condition
	1.3.1.4 Equipment Manufacturing for Solid Waste Treatment and Disposal	Manufacturing and trading of equipment for sludge treatment (including black and smelly water desilting, bottom mud storage and treatment ), solid waste treatment, harmless and recycling treatment of household garbage, hazardous waste disposal, etc. The technical level of equipment is encouraged to meet specifications of the <i>Comprehensive Environmental Protection Catalogue (2017 Edition)</i> , the <i>Catalogue of Major Environmental Protection Equipment and Technology Encouraged by the State(2017 Edition)</i> and other relevant policies and standards.
	1.3.1.5 Equipment Manufacturing for Shock-absorption and Noise-reduction	Manufacturing and trading of sound barriers, mufflers, vibration isolation devices for power equipment, soft connection equipment for pipeline vibration isolation, track vibration and noise control devices, damping vibration suppression materials and equipment, active noise and vibration control equipment and other relevant equipment. The technical level of equipment is encouraged to meet specifications of the <i>Comprehensive Environmental Protection Catalogue (2017 Edition)</i> , the <i>National Catalogue of Major Environmental Protection Equipment and Technology Encouraged by the State (2017 Edition)</i> and other relevant policies and standards.
	1.3.1.6 Equipment Manufacturing for Prevention and Treatment of Radioactive Contamination	Manufacturing and trading of equipment for radioactive waste treatment and disposal, and treatment and remediation of contaminated soil from radioactive sources, etc.

Sector	Program	Description/Condition
	1.3.1.7 Manufacturing of Medicament and Materials for Environmental Pollution Treatment	Manufacturing and trading of equipment and parts of environmental-friendly agents including de-phosphorus agent, germicide and algicide, and flocculant, and of dedusting bag filter materials and fibers, dedusting large-bore bag pulse valve, high-voltage pulse valve with low energy consumption and no diaphragm, and membrane materials and its assemblies, etc. And the manufacturing and trading of materials and chemical agents for environmental pollution control included in the <i>Catalogue of Major Environmental Protection Equipment and Technology Encouraged by the State (2017 Edition)</i> .
	1.3.1.8 Manufacturing of Environmental Monitoring Instruments and Emergency treatment Equipment	Manufacturing and trading of equipment and instruments for monitoring and testing of ecological environment including air, water, soil, biology, noise and vibration, solid waste, motor vehicle emission (including remote sensing monitoring and PEMS testing), nuclear and radiation, and other environmental emergency testing, and those included in the <i>Comprehensive Environmental Protection Catalogue (2017 Edition)</i> and the <i>Catalogue of Major Environmental Protection Equipment and Technology Encouraged by the State (2017 Edition)</i> , in line with the <i>Special Carbon-based Products for Integrated Flue Gas Purification (GB/T 35254)</i> and the <i>Technical Specifications for Detection of Flue Gas Denitrification Catalyst (GB/T 38219)</i> .

Sector		Program	Description/Condition
	1.3.2 Treatment of Sewage Water	1.3.2.1 Protection and Control of High-quality Water and Underground Water Environment	Engineering measures for pollution control such as discarding mine and drilling, and sealing and backfilling water intake wells, ecological restoration and construction of headwater, reservoirs of lakes and rivers (with Grade III and above water quality), the construction of standardized drinking water source and backup water source, by adopting anti-pollution engineering measures such as pollution interception control, vegetation restoration, construction of biological buffer zones and scrapping, as well as pollution risk assessment and control, and protection of underground water in petrochemical areas, mining areas, and farmlands, etc.
		1.3.2.2 Treatment and Control of Water Pollution in Major River and Sea Area	Restoration to improve quality of water environment and restore the ecological function of waters, by adopting measures of pollution interception and control, garbage cleanup, river dredging, wetland protection and restoration, vegetation restoration, etc., Specifically, water environmental protection and comprehensive treatment of seven major river basins, coastal waters, and major lakes, such as monitoring and treatment of plastic waste in coastal areas.
		1.3.2.3 Remediation and Treatment of Urban Black and Malodorous Water	Comprehensive treatment and remediation of urban black and malodorous water, including sewage treatment, recycling, sewage pipeline construction and technical upgrading, sewage outlet renovation, construction and renovation of sewage interception system, internal source treatment, artificial wetland construction, garbage cleaning, and smart water management system, etc.. After the treatment, the water quality should meet the requirements of technical specifications and documents such as the <i>Guidelines for Urban Black and Malodorous Water Remediation</i> (published in 2015) and the <i>Urban Black and Malodorous Water Remediation – Technical Guidelines for the Treatment of Drains, Pipelines and Inspection Wells</i> (published in 2016).

<b>Sector</b>		<b>Program</b>	<b>Description/Condition</b>
		1.3.2.4 Prevention and Treatment of Ship and Port Pollution	Construction and technical upgrading of pollution prevention and control purpose including construction of port oil and gas recovery system for the purpose of preventing pollution from ships, ships retrofit with exhaust pollution treatment equipment , construction of windbreak and dust suppression facilities in ore terminal yards, construction of port and ship pollutant receiving facilities, construction of shore power facilities, and the facilities to avoid alien species' invasion caused by ship ballast water.
	1.3.3 Treatment and Control of Air Pollution	1.3.3.1 Treatment and Control of Traffic Vehicles Pollution	Pollution control of traffic vehicles by renovating and replacing old high-energy-consumption and high-emission operating vehicles with the vehicles that meet new energy efficiency and pollutant emission standards, by constructing real-time monitoring systems for pollution emissions from motor vehicles and non-road mobile machinery, by building road remote sensing, monitoring, and positioning systems, and by controlling pollution of vehicle maintenance waste oil, wastewater and exhaust gas.
		1.3.3.2 Comprehensive Treatment and Control of Urban Dust Pollution	Comprehensive treatment and control of dust pollution in urban areas by setting up fully enclosed fences at construction sites, covering stacking material, adopting wet-mixed operational method of soil excavation, ground hardening on access roads, cleaning inbound and outbound vehicles, taking sealing measures for slag transport vehicles, mechanized road cleaning, and building green land and wind-proof and sand-proof forests in and around the cities.
		1.3.3.3 Treatment and Control of Food and Beverage Fume Pollution	Treatment and Control of food and beverage fume pollution including installing high efficient fume purification facilities at catering service business premises, etc.

<b>Sector</b>		<b>Program</b>	<b>Description/Condition</b>
	1.3.4 Treatment and Control of Soil and Other Pollution	1.3.4.1 Treatment and Control of Construction Land Pollution	Treatment and control of construction land pollution including detailed investigation and monitoring, and risk assessment of construction land pollution, reduction of the level of soil pollutants by the use of physical, chemical, and biological engineering technical measures such as transfer, absorption, and degradation, etc., so as to ensure that the soil quality of construction land meets the environmental requirements for that of relevant planned sites and to improve the value of soil use .
		1.3.4.2 Treatment and Control of Deserts Pollution	Treatment and control of deserts pollution by physical measures such as cleaning, leaching, vitrification, heat treatment, and gas phase suction, etc., by chemical measures such as incineration, electric repair, chemical stabilization, etc., and by biological measures such as plant remediation, animal remediation, and microbial remediation, etc.
		1.3.4.3 Treatment and Control of Agricultural Land Pollution	Detailed investigation, monitoring, and risk assessment of farmland soil pollution, and other activities including quality classification, safe use, risk control, and treatment and restoration of farmland soil environment, and evaluation of the treatment and restoration, etc.
		1.3.4.4 Treatment and Control of Noise Pollution	Control and treatment of noise pollution from industrial enterprises, traffic, construction, and social life, etc.
		1.3.4.5 Treatment and Control of Odor Pollution	Control and treatment of odor pollution by installing purification devices or taking other engineering and technical measures for the enterprises and other entities that produce malodorous gas in their production and operation activities.

<b>Sector</b>		<b>Program</b>	<b>Description/Condition</b>
	1.3.5 Comprehensive Improvement of Agricultural and Rural Environment	1.3.5.1 Prevention and Control of Non-point Source Pollution in Agriculture, Forestry, and Prataculture	Activities to prevent and control farmland pollution, agricultural waste pollution, antibiotic pollution and other new types of pollution by integrated measures such as control at the source, interception in the process and reinforcement at the end; applications of agricultural clean production technology such as formula fertilization by soil testing, and farmland nitrogen and phosphorus interception and reuse, etc.; unified crop diseases and insect pests prevention and control , and green prevention and control service; centralized treatment and resource utilization of feces, large-scale livestock and poultry breeding and resource utilization of feces, harmless treatment facilities for sick and dead livestock and poultry, construction and operation of ecological trenches, sewage purification ponds and other facilities; prevention and control of agricultural plastic film pollution.
		1.3.5.2 Improvement of Rural Living Environment	Comprehensive treatment projects to improve the production and living environment in rural areas, such as the construction and operation of rural household waste and sewage treatment facilities, comprehensive treatment of rural river courses, toilet sewage treatment, improvement of village appearance, and construction and operation of rural drinking water safety projects, etc. Rural sewage treatment facilities should comply with the technological requirements and national standards of rural household sewage treatment facilities evaluation.
1.4 Water Conservation and Unconventional Water Resources	1.4.1 Unconventional Water Resources Utilization	1.4.1.1 Desalination of Seawater and Brackish Water	Construction and operation of seawater and brackish water desalination facilities.
		1.4.1.2 Rainwater Collection, Treatment, and Utilization	Construction and operation of rainwater collection, treatment and utilization facilities.



<b>Sector</b>		<b>Program</b>	<b>Description/Condition</b>
Utilization			
1.5 Comprehensive Utilization of Resources	1.5.1 Manufacturing of Resources Recycling Facilities	1.5.1.1 Manufacturing of Equipment for Comprehensive Utilization of Mineral Resources	Manufacturing and trading of comprehensive utilization facilities for energy minerals, ferrous metal minerals, non-ferrous metal (including rare metal) minerals, non-metallic mineral resources, etc.
		1.5.1.2 Manufacturing of Equipment for Comprehensive Utilization of Industrial Solid Waste	Manufacturing and trading of comprehensive utilization or secondary utilization facilities for desulfurized gypsum, phosphogypsum, chemical waste, smelting waste, tailings, red mud and other solid waste; manufacturing and trading of facilities for retrieving of metallurgical soot dust and high-efficient and low-cost recycling of rare precious metal.
		1.5.1.3 Manufacturing of Equipment for Harmless Utilization of Construction and Transportation Waste	Manufacturing and trading of mobile, fixed, or hybrid whole-set facilities for comprehensive utilization of wastes, which produce raw materials for roads and municipal facilities based on waste mixes, waste asphalt, sand and ash powder, etc. caused by building and road demolition and maintenance ; or recycling buildings and road wastes.
		1.5.1.4 Manufacturing of Equipment for the Recycling and Harmless Treatment of Food Waste	Manufacturing and trading of equipment for kitchen waste reduction, harmless treatment, and recovery of resources through using food waste to produce biodiesel, organic fertilizer, biogas, and industrial ethanol, etc., including the manufacturing and trading of equipment produced for classification and recycling, transportation, sorting, pre-processing, and recycling of resources and energy.

<b>Sector</b>	<b>Program</b>	<b>Description/Condition</b>
	1.5.1.5 Manufacturing of Remanufacturing Equipment for Automobile Components, Electromechanical Products	Manufacturing and trading of equipment that utilizes used car parts, waste electromechanical materials, recycled car parts, and electromechanical products. For example, manufacturing and trading of equipment for dismantling and cleaning of used auto parts, large-scale power rotating electromechanical products, and used electromechanical products; and for the integration of electroplating, cladding, and molding.
	1.5.1.6 Manufacturing of Facilities for Resources Recycle and Reuse	Manufacturing and trading of equipment for harmless recycling of scrap metal such as used power batteries, tires, electromechanical products, etc., rubber, glass, biomass materials, etc., in line with the <i>Technological Guidance for Recycle and Reuse of Waste Lubricating Oil</i> (GB/T 17145), the <i>Labels for Recyclable Products and Parts</i> (GB/T 23384), the <i>General Requirements and Labels for Recycled and Remanufactured Products</i> (GB/T 27611), the <i>Test Method for Oxidation Resistance of Nitrogen Oxide Materials - Variable Temperature Oxidation</i> (GB/T 32329) and other national standards.
	1.5.1.7 Manufacturing of Facilities for the Use of Unconventional Water Resources	Manufacturing and trading of equipment for the use of unconventional water resources such as treatment and recycling equipment for industrial wastewater and urban household sewage; collection, treatment, and recycling equipment for mine water, brackish water, and rainwater; and seawater desalination treatment and recycling equipment, etc..
	1.5.1.8 Manufacturing of Facilities for the Recycling and Harmless Treatment of Agricultural and Forestry Residues	Manufacturing and trading of equipment for the recycling and harmless treatment of agricultural and forestry residues, which produce fermented feed, biogas, bio-natural gas, solid fuel, and organic fertilizers, etc. based on using agricultural and forestry wastes such as straw, livestock and poultry feces, and rural toilet feces, etc..

Sector		Program	Description/Condition
	1.5.2 Comprehensive Utilization of Solid Waste	1.5.2.1 Comprehensive Utilization of Mineral Resources	Exploitation, recycling or comprehensive utilization of low-grade associated resources and energy associated minerals resources such as low concentration gas and associated natural gas; redevelopment and utilization of medium-low grade black metal mines of iron, manganese, and chromium, and of its tailings and comprehensive exploitation and utilization of associated minerals; high-efficient exploitation and utilization of non-ferrous metal resources such as copper, lead, nickel, tin, aluminum, magnesium, gold, and silver etc., redevelopment of its tailings, and comprehensive exploitation and utilization of associated minerals; redevelopment and utilization of tailings of non-metallic minerals such as kaolin, bauxite, limestone, gypsum, and phosphate ore, and comprehensive exploitation and utilization of associated minerals.
		1.5.2.2 Recycling of Waste and Discarded Resources	Recycling of waste resources such as waste metal, waste rubber, waste plastic, waste glass, waste electrical and electronic products, waste solar equipment, waste textiles, waste mineral oil, waste biomass, waste paper(waste printed products, etc.), waste denitrification catalyst, waste cloth bag for dust removal, etc. For example, the construction and operation of facilities for recycling, sorting, and processing of waste resources, in line with the <i>Guidelines for Calculation Methods of Product Recyclable Utilization Rate</i> (GB/T 20862), the <i>Technical Specifications for Waste Product Treatment of Enterprises</i> (GB/T 27873), the <i>Statistical Indicator System for Waste Product Recycling and Treatment of Enterprises</i> (GB/T 28744), the <i>Technical Specifications for Waste Plastic Recycling and Utilization</i> (GB/T 37821), the <i>Technical Specifications for Waste Textile Recycling</i> (GB/T 38926), and other national standards.

<b>Sector</b>	<b>Program</b>	<b>Description/Condition</b>	
		1.5.2.3 Remanufacturing of Automobile Components and Electromechanical Products	Construction and operation of facilities for recycling, sorting, dismantling, and reprocessing of electromechanical products such as used automobile parts and used large-scale power rotating electromechanical products.
	1.5.3 Comprehensive Utilization of Biomass Resources	1.5.3.1 Comprehensive Utilization of Urban and Rural Household Waste	Construction and operation of facilities for the harmless treatment and utilization of resources such as household garbage, kitchen waste, urban sludge, demolition waste of buildings, traffic roads, and bridges. For example, the construction and operation of household waste sorting and treatment facilities, environmentally safe garbage incineration power plants, processing and production facilities of organic fertilizer and biodiesel from kitchen waste.
		1.5.3.2 Recycling and Utilization of Agricultural Waste Resources	Construction and operation of resource utilization facilities for agricultural wastes such as crop stalks, livestock and poultry feces, accessory substance of vegetables, and primary processing residues of agricultural products. For example, the construction and operation of facilities to produce biomass briquettes from crop stalks and the production of biogas from livestock and poultry feces.
		1.5.3.3 Comprehensive Utilization of Sludge from Urban Sewage Treatment Plants	Construction and operation of sludge treatment and comprehensive utilization facilities of urban sewage treatment plants. For example, the construction and operation of facilities for utilization of all types of sludge, including sludge use for betterment of land fertility (for land improvement, landscaping, forestry, and agriculture, etc.), for incineration power generation (heating, cogeneration), and for construction materials' processing.

Sector		Program	Description/Condition
1.6 Green Transportation	1.6.1 Manufacturing of New Energy Vehicles and Green Ships	1.6.1.1 Manufacturing of Key Components of New Energy Vehicles and its Industrialization	Manufacturing of core components of new energy vehicles including batteries, motors and its control systems, electrical accessories, plug-in hybrid special engines, electromechanical coupling systems, and energy recovery systems, the construction and operation of its industrial facilities, and the trading and purchasing of new and clean energy vehicles. The relevant projects should meet the requirements of the <i>Administrative Provisions on the Admission of New Energy Vehicle Enterprises and Products</i> (Amendment No.54 of the Order of the Ministry of Industry and Information Technology, PRC).
		1.6.1.2 Manufacturing of Facilities for Charging, Battery Replacement, and Hydrogenation	Equipment manufacturing, facility building and operation of distributed AC charging piles, centralized fast charging stations, power exchange facilities, station hydrogenation and hydrogen storage equipment, etc. The design and construction of hydrogenation stations should comply with the requirements of national standards such as the <i>Design Specifications for Hydrogen Stations</i> (GB 50177), the <i>Technological Specifications for Hydrogen Stations</i> (GB 50516) and the <i>Technological Specifications for Safety of Hydrogen Stations</i> (GB/T 34584).
		1.6.1.3 Manufacturing of Green Ships	Manufacturing, purchasing, and trading of new energy ships including natural gas-powered ships, electric power ships, solar/wind energy ships, etc., and green ships such as energy-saving and new energy construction ships.
<b>2. Clean Production Industry</b>			

<b>Sector</b>		<b>Program</b>	<b>Description/Condition</b>
2.1 Pollution Prevention and Treatment	2.1.1 Pollution Prevention and Control	2.1.1.1 Industrial Desulfurization, Denitrification and Dust Removal Transformation	Technical upgrading of industrial boiler in desulfurization, denitrification and dust removal, desulfurization of sintering machine in iron and steel industry, denitrification in cement industry, exhaust gas heavy metal treatment, etc. that comply with national standards, such as the <i>Principles and Requirements for the Comprehensive Utilization of Exhaust Gases in Industrial Parks</i> (GB/T 36574), <i>Technical Requirements for Evaluation of Operation Performance of Coal-Fired Flue Gas Denitrification Installation</i> (GB/T 34340), <i>Technical Requirements for Evaluation of Operation Performance of Coal-fired Flue Gas Desulfurization Equipment</i> (GB/T 34605), <i>Technical Requirements for Evaluation of Operation Performance of Steel Sintering Flue Gas Desulfurization and Dust Removal Equipment</i> (GB/T 34607), etc.
		2.1.1.2 Integrated Treatment of Volatile Organic Compounds	Construction and operation of comprehensive treatment for volatile organic compounds (VOCs) such as treatment facility for VOCs (including rectification of enterprises in industrial parks and industrial parks) in the petrochemical, organic chemical, pharmaceutical, industrial coating and packaging industries, as well as the oil and gas recovery facilities in oil and gas transportation and storage systems (e.g. gas stations, tank trucks, oil storage depots). Technical upgrading of production processes and production equipment designed for treating VOCs.

Sector		Program	Description/Condition
		2.1.1.3 Transformation of Ultra-Low Emission of Steel Enterprises	Upgrading and transformation of desulfurization and denitrification facilities in the production processes of iron and steel enterprises, such as the installation of low-nitrogen burners and high-efficiency dust removal facilities for corresponding equipment in production lines; Retrofitting of production workshops and slag treatment equipment into confined spaces, upgrading of phenol cyanide wastewater treatment facilities, leakage detection and repairing of equipment and pipelines, etc. that comply with national standards, such as the <i>Technical Specifications for Recycling and Utilizing Dust and Ash from Dry Blast Furnace</i> (GB/T 33759).
	2.1.2 Treatment of Sewage Water in Production	2.1.2.1 Wastewater Treatment of Major Industries	Clean technology transitioning of major water-polluting industries, such as papermaking, coking, nitrogen fertilizers, non-ferrous metals, printing and dyeing, agricultural and sideline food processing, raw pharmaceutical ingredient manufacturing, tanning, pesticides, electroplating; and construction and operation of wastewater treatment facilities such as industrial wastewater treatment plants. For example, the treatment of phosphate ore, phosphorus chemical industry, phosphogypsum storages, and comprehensive utilization and trading of phosphogypsum, construction and operation of wastewater facilities in industries containing phosphorus pesticides, etc. that comply with national standards, such as the <i>Guide for Evaluating Industrial Wastewater Treatment and Reuse Technology</i> (GB/T 32327).

Sector		Program	Description/Condition
	2.1.3 Pollution Treatment in Industrial Parks	2.1.2.2 Centralized Treatment of Wastewater in Industrial-Intensive Zones	Construction and operation of sewage pretreatment systems, sewage collection systems, and sewage centralized treatment and recovery facilities in industrial areas, such as the Economic and Technological Development Zones, High-Tech Industrial Development Zones, Export Processing Zones, etc. that comply with national standards, such as the <i>Principles and Requirements for the Classification and Recycling of Water in the Industrial Parks</i> (GB/T 36575).
		2.1.3.1 Promotion of Centralized Treatment of Pollution	Construction, operation and upgrading of centralized pollution treatment facilities, centralized spraying facilities in industrial parks and enterprise clusters; construction and operation of centralized dismantling and treatment facilities for recyclable wastes (e.g. scrap steel, non-ferrous metals waste, plastics waste, rubber waste); construction and technology upgrading of infrastructure (e.g. water supply, power supply, heating, roads, communications) in industrial parks and enterprise clusters, that comply with national standards, such as the <i>Indicator System and Evaluation Methodology for Greening Industrial Park Infrastructure</i> (GB/T 38538) and <i>Technical Specifications for Production of Methanol from Coke Oven Gas</i> (GB/T 38927).
		2.1.3.2 Transformation of Major Industries into Cleaner Production	Clean production-transitioning of high-polluting enterprises and industrial parks, including those in the fields of iron and steel, chemical, petroleum and petrochemical, non-ferrous metals, etc., to improve the environment, reduce greenhouse gas emissions and achieve efficient utilization of resources. The newly constructed, renovated and expanded facilities or projects should adopt chemical, petroleum and petrochemical processes that are listed in the <i>Petrochemical Green Technology List (2019 Edition)</i> .



Sector		Program	Description/Condition
	2.1.4 Non-hazardous Alternatives and Treatment of Hazardous Waste	2.1.4.1 The Production and Usage of Non-hazardous Materials as Alternatives	The use of non-toxic, harmless or low-toxic and low-harm raw materials in key industries, such as electrical appliances, automobiles, paints, furniture, toys, educational hardware, printing, automobile manufacturing coatings, rubber products, leather, shoemaking, etc. Technical upgrading or construction of manufacturing facility for the replacement of the use of toxic and hazardous materials containing heavy metals, organic pollutants, ozone-depleting substances, etc. For example, the construction of the production facility or the technical upgrading of technologies of the alternative products that are listed in the <i>Catalogue of Alternatives to Toxic and Harmful Raw Materials (Products) Encouraged by the State (2016 Edition)</i> , and the technical upgrading and new technology facility construction for the controlled substances that are listed in the <i>Montreal Protocol on Substances that Deplete the Ozone Layer</i> and its amendments.
		2.1.4.2 Management and Disposal of Hazardous Waste	The reduction of hazardous wastes and medical wastes listed in the <i>National List of Hazardous Wastes (published in 2016)</i> and the construction and operation of non-hazardous waste treatment facilities.
		2.1.4.3 Transport of Hazardous Waste	Hazardous waste and medical waste transportation and operation activities included in the <i>National List of Hazardous Wastes</i> (published in 2016).
2.22 Green Agriculture	2.2.1 Comprehensive Management in Agriculture	2.2.1.1 Effective, Low-Toxicity And Low-Residue Pesticide Production and Alternatives	The manufacturing and application of the state- and industrial- endorsed effective, low-toxicity and low-residue pesticides such as those that comply with the <i>List of Major Varieties of Low Toxicity and Low Residue Pesticides Produced and Used in the Plantation Industry (2016)</i> , through the production of pesticide-producing equipment, technological enhancement of production process, and research, development and production of environmentally friendly pesticides.

Sector		Program	Description/Condition
	and Rural Environment	2.2.1.2 Treatment of Livestock and Poultry Husbandry Waste and Pollution	Treatment of livestock and poultry husbandry wastes by developing and upgrading to cleaner poultry farming, constructing comprehensive utilization facilities for collecting and treating wastewater and manure, and upgrading and constructing air pollution prevention and treatment facilities.
		2.2.1.3 Recycling of Waste Agricultural Film	Construction of mobile and fixed recycling stations as well as transportation and storage systems for waste agricultural film. Manufacturing, construction, and operation of the equipment and facilities that produce renewable particles, water leak-proof material, plastic bags, and pyrolysis oil with waste agricultural film.
2.3 Comprehensive Utilization of Resources	2.3.1 Comprehensive Utilization of Solid Waste	2.3.1.1 Harmless Treatment, Disposal and Comprehensive Utilization of Industrial Solid Waste	Construction and operation of recycling, harmless treatment and recovery facilities of industrial solid waste, such as smelting slag, industrial by-product gypsum, red mud, chemical waste residue, as well as construction and operation of harmless treatment facilities such as those for hazardous waste incineration and high-temperature melting that comply with relevant standards or policies of pollution control technology. Construction and operation of recycling facilities that use hazardous wastes as raw materials for the preparation of other industrial products, or for the utilization of resources that comply with national standards, such as the <i>Technical Guidance for Environmental and Quality Safety Assessment of Comprehensive Utilization of Industrial Solid Waste Products</i> (GB/T 32328), the <i>Technical Guidance for Comprehensive Utilization of Industrial Solid Waste</i> (GB/T 32326), and the <i>Terminology for Comprehensive Utilization of Industrial Solid Waste</i> (GB/T 34911).

Sector		Program	Description/Condition
		2.3.1.2 Treatment of Historical Tailings	Upgrading of tailings pond storage system, flood drainage system, and water recirculation system; environmental treatment and restoration of historical tailings storages and other sites affected by it, such as the management and restoration of rivers affected by slag pollution at heavy metal-contaminated plots.
		2.3.1.3 Recycling and Treatment of Packaging Waste	Construction and operation of recycling and treatment facilities for packaging wastes such as packaging containers and materials made from paper, plastic, metal, glass, wood, or mixed materials that comply with national standards, such as the <i>Sorting Quality Requirements for Waste Composite Packaging</i> (GB/T 38925).
	2.3.2 Comprehensive Utilization of Resources in Industrial Parks	2.3.2.1 Cross-Industry Collaboration and Resources Circulation	Establish enterprise-level collaboration across different industries in industrial parks, such as power, steel, non-ferrous metals, petroleum and petrochemical industry, chemical industry, building materials, papermaking, textile, agriculture and livestock husbandry to maximize the continuous utilization and recycling of waste resources, or to achieve cascade utilization of energy.
		2.3.2.2 Energy Efficiency Improvement	Introduction and construction of resource utilization projects such as those for waste resources, tailings, associated mines in industrial parks; as well as the special or systematic upgrading of parks to improve the overall resource utilization efficiency of the industrial parks and park enterprises, by introducing, upgrading and constructing supplementary enterprises absent from the industrial chain, and utilizing resources from existing enterprises in accordance with national standards, such as the <i>Implementation Guides for Environment Management System of Comprehensive Utilization Industry of Waste Resources</i> (GB/T 29750).
2.4 Water Saving and Efficient Use of	2.4.1 Industrial Water	2.4.1.1 Water Saving and Efficient Use of Water During Production	Water-saving improvement work for industrial cooling water, thermal and process water, and washing water; recycling and reuse of steam condensate; recycling, treatment and reuse of discharged waste water; and construction and technical

Sector		Program	Description/Condition
Non-conventional Water Resources	Saving		upgrading of unconventional water resources utilization that comply with national standards, such as the <i>Evaluation on the Heavy Metal Wastewater Treatment and Reuse Technology</i> (GB/T 38224).
<b>3. Clean Energy Industry</b>			
3.1 Energy Efficiency Improvement	3.1.1 Energy Saving in Power Facilities	3.1.1.1 Production of Smart Grid Products and Equipment	Manufacturing of smart transformers, rectifiers and inductors, advanced electrical or electronic devices, smart power transmission, distribution and control equipment, UHV transmission equipment, pumped hydro storage equipment, new energy storage equipment, charging facilities, and other control products related to smart grids and new energy.
		3.1.1.2 Construction and Operation of Smart Grids	Construction and operation of smart grid facilities with information integration, controlling, energy storage technologies and intelligent power equipment; construction and operation of grid facilities that reduce wind and light waste, improve the consumption efficiency of clean energy in order to achieve digitalized management, smart decision-making and interactive trading of electricity in the process of power generation, transmission, distribution and storage.
3.2 Clean Energy	3.2.1 Production of New Energy	3.2.1.1 Production of Wind Generators	Manufacturing and trading of onshore and offshore wind turbines, wind turbine generators, wind turbine blades, bearings, cables, gearboxes, towers and other key components of 3MW and above wind turbines for plateau, low-temperature, low wind speed environments, and wind farm-related systems and equipment.

<b>Sector</b>		<b>Program</b>	<b>Description/Condition</b>
Equipment and Clean Energy Equipment	3.2.1.2 Production of Solar Generators	Manufacturing and trading of photovoltaic (PV) power generators and solar thermoelectric equipment. Specifically, PV power generator manufacturing enterprises and projects shall meet the requirements in the <i>Specifications for the Photovoltaic Manufacturing Industry</i> (2018 Edition) (Announcement No.2 [2018] of the Ministry of Industry and Information Technology); and the production of PV cells should meet the Level I requirements in the <i>System of Clean Production Assessment Indexes for the Photovoltaic Cell Industry</i> (Announcement No. 21 [2016] of the National Development and Reform Commission, Ministry of Environmental Protection, and Ministry of Industry and Information Technology).	
	3.2.1.3 Production of Biomass Energy Utilization Equipment	Manufacturing and trading of collection, crushing, transportation, and storage equipment for agricultural by-products such as straw and rice husk; manufacturing and trading of biomass-power generators and heating equipment, marsh gas and biogas production equipment, biomass solid and liquid fuel production equipment, and other equipment making use of biomass energy.	
	3.2.1.4 Production of Hydropower Generators and Pumped Storage Equipment	Manufacturing and trading of high-performance and large-capacity hydropower generators, high-head and large-capacity pumped storage equipment, thousand-megawatt large hydraulic turbine generators, variable-speed pumped storage equipment, ultra-high-head large-impact hydraulic turbine generators, seawater pumped storage equipment, and other relevant hydropower generators and pumped storage equipment.	

<b>Sector</b>		<b>Program</b>	<b>Description/Condition</b>
		3.2.1.5 Production of Nuclear Power Equipment	Manufacturing of the third generation advanced pressurized water reactor nuclear power plant equipment, equipment for fast neutron reactor and high-temperature gas-cooled reactor nuclear power plants, small modular reactors (SMRs), nuclear emergency equipment and nuclear grade pumps, valve equipment and other auxiliary equipment in nuclear power plants, radiation shielding materials, and safety and monitoring devices; manufacturing of uranium mining, uranium purification and conversion, uranium enrichment, and fuel element production; treatment of decommissioning nuclear facilities and radioactive waste, and manufacturing of relevant treatment equipment and equipment for comprehensive utilization of uranium associated mine.
		3.2.1.6 Production of Gas Turbine Equipment	Manufacturing of gas turbine equipment such as heavy and micro gas turbines, as well as core components of gas turbines, such as ceramic cores with complex structures, highly thermal shock resistant ceramic mold shells, large-sized oriented crystal or single crystal blades, large turbine disks, high-precision rotors, high-durability bearings and sealing equipment, strong steel tie rods, and high-temperature and high-pressure burners.
		3.2.1.7 Production of Fuel Cell Equipment	Manufacturing and trading of fuel cells using proton exchange membrane, direct methanol, alkaline fuel, molten carbonic acid fuel, phosphoric acid fuel, and solid oxide.
		3.2.1.8 Production of Geothermal Energy Utilization Equipment	Manufacturing and trading of ground source heat pumps, high-temperature geothermal heat pumps, key equipment of geothermal absorption refrigeration systems, medium and low-temperature geothermal power generation systems and geothermal drying and hot water supply systems, and anti-corrosion and anti-incrustation equipment for geothermal energy utilization.

<b>Sector</b>	<b>Program</b>	<b>Description/Condition</b>
	3.2.1.9 Production of Marine Energy Utilization Equipment	Manufacturing and trading of marine energy utilization equipment that generates electricity from resources, such as marine tidal energy, tidal current energy, wave energy, temperature difference energy, and salt difference energy.
	3.2.2.1 Construction and Operation of Wind Power Facilities	Construction and operation of facilities that utilize wind energy to generate electricity.
	3.2.2 Construction and Operation of Renewable Energy Facilities	<p>Construction and operation of facilities that generate electricity with solar energy, including facilities for solar photovoltaic power generation, solar thermal power generation, and solar thermal power utilization. Specifically, the components selected for solar photovoltaic power generation facilities shall meet the following requirements: 1) The minimum photoelectric conversion efficiencies of polycrystalline silicon cells and monocrystalline silicon cells shall not be lower than 19% and 21%, respectively; 2) The minimum photoelectric conversion efficiencies of polycrystalline silicon cell modules and monocrystalline silicon battery modules shall not be lower than 17% and 17.8%, respectively; 3) The minimum photoelectric conversion efficiency of silicon-based, CIGS , CdTe and other thin-film battery modules shall not be lower than 12% , 14% , 14%, and 12%, respectively; 4) The attenuation rates of polycrystalline silicon battery modules and monocrystalline silicon battery modules shall not be higher than the following, i.e., 2.5% and 3%, respectively, in the first year, 0.7% annually in subsequent years, and 20% within 25 years; the attenuation rate of thin-film battery module shall not be higher than 5% in the first year, 0.4% annually in subsequent years, and 15% within 25 years.</p>

<b>Sector</b>	<b>Program</b>	<b>Description/Condition</b>
	3.2.2.3 Construction and Operation of Biomass Energy Utilization Facilities	Construction and operation of facilities that generate electricity and heat with biomass raw materials, such as agricultural and forestry wastes and municipal solid wastes. Construction and operation of facilities that produce liquid biomass fuels such as fuel ethanol, and facilities that produce biodiesel and other related products mainly from kitchen wastes such as gutter oil.
	3.2.2.4 Construction and Operation of Large-Scale Hydropower Facilities	Construction and operation of facilities that utilizes the potential energy of water bodies to generate electricity without exerting serious impact on the eco-environment, including only the major large-scale hydropower projects listed in the National Renewable Energy Program and other related programs.
	3.2.2.5 Construction and Operation of Nuclear Power Plants	Construction and operation of facilities that release heat from controllable nuclear fission and generate electricity with third-generation and fourth-generation nuclear power technologies on the premise of ensuring environmental safety.
	3.2.2.6 Construction and Operation of Geothermal Energy Utilization Facilities	Construction and operation of indoor heating and cooling facilities that use heat pumping and other technologies to extract shallow geothermal energy, such as from rock and soil heat sources, groundwater heat sources, and surface water heat sources. Construction and operation of power facilities that generate electricity from geothermal resources, such as medium and high-temperature geothermal heat, medium and low-temperature geothermal heat, and dry heat rock.
	3.2.2.7 Construction and Operation of Marine Energy Utilization Facilities	Construction and operation of power facilities that generate electricity from resources such as marine tidal energy, wave energy, tidal current energy, temperature difference energy, and salt difference energy, on the premise of not causing serious damage to marine ecology and biodiversity,



<b>Sector</b>		<b>Program</b>	<b>Description/Condition</b>
		3.2.2.8 Construction and Operation of Hydrogen Energy Utilization Facilities	<p>Technical setting and hydrogen energy utilization regarding clean production of hydrogen, safe and efficient storage of hydrogen, hydrogen refueling stations, hydrogen fuel cell vehicles, power generation via hydrogen fuel cells, and hydrogenated natural gas. Hydrogen safety shall meet national standards, such as the <i>Technical Specifications for the Safe Utilization of Hydrogen</i> (GB 4962) and the <i>Basic Safety Requirements for the Hydrogen System</i> (GB/T 29729). Hydrogen production via hydrolysis shall meet national standards, such as the <i>Technical Requirements for the System of Hydrogen Production via Electrolysis</i> (GB/T 19774) and the <i>Safety Requirements for the System of Hydrogen Production via Pressurized Hydrolysis</i> (GB/T 37563). Hydrogen production via pressure swing adsorption purification shall meet national standards, such as the <i>Adsorber for Hydrogen Purification via Pressure Swing Adsorption</i> (GB/T 29412) and the <i>Technical Requirements for Hydrogen Purification via Pressure Swing Adsorption</i> (GB/T 19773). Hydrogen storage and transportation shall meet national standards, such as the <i>Stationary High-Pressure Steel Strip Stagger-Wrap Vessels for Hydrogen Storage</i> (GB/T 26466) and the <i>Hydrogen Storage and Transportation System</i> (GB/T 34542). Hydrogen storage equipment for hydrogen fueling stations shall meet national standards, such as the <i>Technical Requirements for the Safety of Hydrogen Storage Equipment of Hydrogen Fueling Stations</i> (GB/T 34583). The design and construction of hydrogen fueling stations shall meet national standards, such as the <i>Regulations for the Design of Hydrogen Stations</i> (GB 50177), the <i>Technical Regulations for Hydrogen Fueling Stations</i> (GB 50516), and the <i>Technical Regulations for the Safety of Hydrogen Fueling Stations</i> (GB/T 34584). Fueling facilities shall meet national standards, such as the <i>Specifications for Supporting Facilities for the Demonstration</i></p>

Sector	Program	Description/Condition
		<p><i>Operation of Hydrogen Fuel Cell Vehicles</i> (GB/T 29124), the <i>Technical Specifications for the Safety of Mobile Hydrogen Fueling Facilities</i> (GB/T 31139), the <i>Administrative Regulations for the Safe Operation of Hydrogen Fueling Facilities for Hydrogen Energy Vehicles</i> (GB/Z 34541). The hydrogen-mixed natural gas for motor vehicles shall meet national standards, such as the <i>Compressed Hydrogen and Natural Gas Mixed Gas for Motor Vehicles</i> (GB/T 34537). The technologies of hydrogen fuel cell vehicles shall meet national standards, such as the <i>Fuel Hydrogen for Proton Exchange Membrane Fuel Cell Vehicles</i> (GB/T 37244), the <i>Technical Specifications for the Demonstration Operation of Hydrogen Fuel Cell Electric Vehicles</i> (GB/T 29123) and the <i>Safety Requirements for Fuel Cell Vehicles</i> (GB/T 24549). The stationary fuel cell power generation system shall meet national standards, such as the <i>Stationary Fuel Cell Power Generation System</i> (GB/T 27748).</p>
	3.2.2.9 Construction and Operation of Heat Pump Facilities	<p>Construction and operation of the facilities of heat pump heating (cooling) system such as air source heat pumps, ground water source heat pumps, surface water source heat pumps, sewage source heat pumps, soil source heat pumps, and high-temperature air energy heat pumps.</p>

<b>Sector</b>		<b>Program</b>	<b>Description/Condition</b>
	3.2.3 Efficient Operation of Clean Energy	3.2.3.1 Construction and Operation of Multi-energy Complementary Projects	Construction of integrated energy supply equipment terminal using technologies including the triple power supply combining natural gas heating, electricity and cooling supply, distributed renewable energy and smart energy microgrid aiming at fulfilling end-users' demand for multi-energy consumption such as electricity, heating, cooling. In order to improve the overall efficiency of the energy supply system, increase the usage of renewable energy, and reduce carbon emissions. The comprehensive energy efficiency of the equipment should be greater than or equal to 70%. Construction and operation of multi-energy complementary systems that adjust and improve the stability of the power system, such as, systems that increase the capacity of regional power grids to accept intermittent renewable energy such as wind and solar; systems that solve the problems of waste wind, solar and water energy in the regional power grid; systems that use large-scale comprehensive energy base to bring out the advantage of combining wind power, solar power, hydropower and natural gas, and complement them with thermal electricity, hydroelectricity, energy storage facilities. The waste rate of wind power of the system should be controlled within 5%, and that of solar power should be controlled within 3%.
		3.2.3.2 Operation and Construction of Energy Efficient Storage Facilities	Construction and operation of energy-efficient storage and peak-shaving facilities, using physical energy storage, electromagnetic energy storage, electrochemical energy storage and phase change energy storage technologies to improve the flexibility, stability and reliability of renewable energy power generation, distributed energy, new energy microgrid and other systems.

Sector	Program	Description/Condition
	3.2.3.3 Construction and Operation of Natural Gas Transmission, Storage, and Peak Load Regulation Facilities	Construction and operation of natural gas transmission, storage and transportation peak shaving facilities, such as long-distance natural gas pipelines, gas storage, branch pipelines, regional pipeline networks, and liquefied natural gas ( LNG ) receiving stations.
	3.2.3.4 Construction and Operation of Distributed Energy Resources (Ders) Projects	Construction and operation of distributed energy projects such as natural gas combined heat, power and cooling, distributed renewable energy generation and geothermal heating and cooling. Energy efficiency requirements for distributed CHP energy systems and engineering projects powered by natural gas or other fossil fuels shall meet the requirements of the <i>Energy Efficiency for Distributed CHP Energy Systems, Part 1: Fossil Energy Driving System</i> (GB/T 33757.1). The refrigeration, heating and power units of relevant systems and engineering projects shall meet the requirements of the <i>Technical Specifications for Distributed Thermal and Cold Power Energy Systems, Part 1: Refrigeration and Heating Unit</i> (GB/T 36160.1), the <i>Technical Specifications for Distributed Thermal and Cold Power Energy Systems, Part 2: Power unit</i> (GB/T 36160.2) and other national standards.
	3.2.3.5 Construction and Operation of Pumped-Storage Power Stations	Construction and operation of “peak-cut” pumped-storage power to improve the grid’s ability to absorb intermittent renewable energy such as wind power and solar power, thereby improving the grid’s operational flexibility, stability and reliability.
	3.2.3.6 Construction and Operation of Carbon Dioxide Capture, Utilization and Storage (CCUS) Projects	Construction and operation of emission reduction projects to capture, utilize, or store carbon dioxide emitted from the combustion of fossil energy and industrial processes.
<b>4. Ecology and Environment-related sector</b>		

<b>Sector</b>		<b>Program</b>	<b>Description/Condition</b>
4.1 Ecological Agriculture	4.1.1 Conservation of Agricultural Resources	4.1.1.1 Modern Agriculture, Seed Industry and the Protection of Animals, Plants and Germplasm Resources	Industrialization projects of the seed cultivation, breeding and promotion that aim to promote sustainable agricultural development; Establishment of elite germplasm demonstration areas; Establishment of R&D and service platforms, and the collection, preservation, protection, and management projects of animal and plant germplasm resources.
		4.1.1.2 The Management of Crop Protection Areas and Protection Zones	Integration and merger of scattered farmland, land reclamation, and improvement of farmland quality in the defined permanent basic farmland area according to local conditions; Projects to improve the quality of cultivated land in the permanent basic farmland such as the comprehensive management of degraded farmland, the upgrade of medium and low-yield farmland, and the construction of high-standard farmland. Topsoil stripping of occupied cultivated land in the “cultivated land occupation and compensation balance program” used for the soil improvement projects of new cultivated land, inferior farmland, and basic farmland preparation area cultivated land, or used for the construction of farmland water conservancy facilities, farmland water and fertilizer conservation, pollution control and restoration, etc. (The reclamation of heavily desertified land or cultivated land on steep slopes above 25 degrees, and illegal deforestation of cultivated land, are prohibited.)

<b>Sector</b>		<b>Program</b>	<b>Description/Condition</b>
		4.1.1.3 Protection of Forest Genetic Resources	<p>Construction of the investigation, monitoring and information platform of forestry genetic resources, and the collection and preservation of such resources (in-situ or off-site protection, preservation facilities, construction of protected areas, etc.).</p> <p>Breeding, domestication and bioprospecting projects for native tree species, economic tree species, and fast-growing tree species.</p> <p>Forestry gene (genetic) resource protection projects that conform to national, industry-related policies, norms, and standards, such as improved species utilization projects, invasive species prevention and control, etc.</p>
		4.1.1.4 The Management and Protection of Marine Ranching	<p>Construction and operation of marine ranch projects that restore/increase the number of populations and improve/optimize the aquatic biome structures in order to release fish biological eggs, larvae or adults into natural waters such as oceans, tidal flats, rivers, lakes, reservoirs to improve the aquatic environment and protect biodiversity.</p>
		4.1.1.5 Pest Prevention and Control	<p>Prevention activities for agricultural and forestry pest invasion and the prevention and control of invasive alien species to protect biodiversity; and the handling of invasive alien species by means of resource utilization.</p>
		4.1.1.6 Comprehensive Rural Land Reform	<p>Comprehensive Improvement of rural villages and landscape to promote the construction of beautiful and livable villages and optimize the rural production and living environment, including low-efficiency idle construction land remediation, industrial/mining wasteland reclamation and hollow village remediation, soil improvement, fertility improvement, water and fertilizer conservation, pollution control and restoration projects, etc.</p>

Sector		Program	Description/Condition
	4.1.2 Comprehensive Management in Agriculture and Rural Environment	4.1.2.1 Control and Prevention of Crop Diseases and Insect Pests	<p>Green prevention and control of crop diseases and pests through usage reduction and/or efficiency improvement of chemical pesticides, as well as projects on zero growth in chemical pesticide usage.</p> <p>These projects can be implemented through:</p> <ul style="list-style-type: none"> <li>- promoting disease-resistant crop varieties,</li> <li>- applying biological control techniques such as “controlling insects with insects”, “co-cultivation of rice and ducks”, “biological biochemical reagents”,</li> <li>- applying physical and chemical lure and control technologies such as “insect killer lamps” and “insect net blocking”</li> <li>- applying high-efficiency, low-toxicity, low-residue, and environmentally friendly pesticides.</li> </ul>
	4.1.3 Supply of Green Agricultural Products	4.1.3.1 Green Organic Agriculture	<p>Production and consumption of organic agricultural products and green food, and bulk trading of green agricultural products; facility construction associated with organic agricultural products and green food production. Products and production environment should conform with valid national standards of <i>Organic Products</i> (GB/T 19630.1-GB/T 19630.4); the environmental quality standards issued by the former Ministry of Agriculture and 7 other general standards on pesticides, fertilizers, veterinary drugs, feed and feed additives, food additives, animal health, etc.; and 45 product quality standards. The labeling of products must comply with the <i>Administrative Measures on Green Food Labeling</i> issued by the former Ministry of Agriculture (Order No.6 [2012]). Bulk trading activities of green agricultural products are mainly applicable to agricultural products that have obtained relevant international sustainability certificates.</p>

<b>Sector</b>	<b>Program</b>	<b>Description/Condition</b>
	4.1.3.2 Green Animal Husbandry	<p>Green animal husbandry projects carried out to promote the efficiency of animal husbandry resources and environmental protection. For example:</p> <ul style="list-style-type: none"> <li>- harmless treatment systems for sick and dead livestock and poultry;</li> <li>- facility construction for storage, treatment and utilization of waste from livestock and poultry breeding;</li> <li>- construction of environment-friendly breeding facilities, such as elevated beds;</li> <li>- construction of agricultural industrial parks with a circular system between breeding, biogas, planting, and processing.</li> </ul>
	4.1.3.3 Green Fishery	<p>Environment-friendly fishery projects such as carbon sink fishery and clean water fishery, rice-fish system and the comprehensive utilization of saline-alkali water for fishery and agriculture, recirculating aquaculture systems, deep-water anti-wind and wave non-bait cage aquaculture, ecological aquaculture, and comprehensive utilization of aquatic by-products. Construction and operation of facilities treating aquaculture wastewater, as well as fishery resource conservation facilities, such as the marine fisheries conservation, etc.</p>



<b>Sector</b>		<b>Program</b>	<b>Description/Condition</b>
4.2 Ecological Protection and Construction	4.2.1 Conservation and Restoration of Natural Ecosystems	4.2.1.1 Protection of Natural Forest Resources	<p>Construction of forest pest control, forest fire prevention, forest management equipment and infrastructure that maintain the authenticity and integrity of the natural forest ecosystem.</p> <p>Infrastructure construction for natural forest tending and conservation (such as housing, power supply, water supply, communication, roads, etc. for forest conservation purposes within natural forests).</p> <p>Projects for restoring degraded natural forests (such as the use of native species for slope farmland restoration, artificial afforestation, natural afforestation through hillside closure, logging-tending systems, etc.).</p> <p>Construction of conversion projects of state-owned forest areas with a precondition of complete prohibition of commercial logging of natural forests (such as eco-tourism, leisure and recreation, featured species breeding, which do no harm to surface vegetation and biodiversity protection).</p>
		4.2.1.2 Protection of Animal and Plant Resources	Rescue protection of endangered wild animals and plants, biodiversity protection, fishery resources protection, protection of ancient and famous trees, etc.
		4.2.1.3 Construction and Operation of Nature Reserves	<p>Special conservation and management activities for protection purposes in certain legally designated reserves (including core areas, buffer zones, and peripheral areas) of the natural concentrated distribution areas as well as nature relics of representative natural ecosystems and endangered wild animal and plant species. Such activities include:</p> <p>relocation of residents for protection purposes, construction and operation of management facilities in reserves; construction and operation of infrastructure for scientific research (prohibited in core areas); infrastructure construction and operation of scientific experiments, teaching practice, visits, tourism, reproduction and domestication of endangered rare animal and plant species (peripheral areas only).</p>

<b>Sector</b>	<b>Program</b>	<b>Description/Condition</b>
	4.2.1.4. Construction, Maintenance and Operation of Ecological Function Areas	Management, restoration and conservation projects of ecological function areas and degraded areas, such as comprehensive control of soil erosion, desertification and rocky desertification control, protection and restoration of geological environment of mining sites, and construction of nature reserves, etc.
	4.2.1.5 Projects of Turning Farmlands Back to Forests or Grasslands and Restoring Grazing Lands to Grasslands	Planned and stepwise cessation of cultivation in cultivated lands with serious soil erosion, desertification, salinization, and rocky desertification to protect ecological environment, grasslands and forestry restoration according to local conditions, restoring vegetation, and inhibiting deterioration of the ecological environment; construction of facilities for grassland ecological protection such as grazing prohibition, grassland fences, sheds, and artificial grassland, etc.
	4.2.1.6 Protection and Restoration of Rivers, Lakes and Wetlands	Management, restoration, and conservation projects that improve the ecological integrity and sustainability of river, lake, and wetland original ecosystems based on local conditions, including construction of facilities for pollutant source control and pollution reduction, construction of riverside and lakeside ecological buffer zones, restoration of native species and vegetation, river and lake system inter-connection, ecological dispatching project, construction of facilities for flood control and coastal erosion, etc.

<b>Sector</b>		<b>Program</b>	<b>Description/Condition</b>
		4.2.1.7 Protection and Restoration of National Ecological Security Barriers	<p>Ecological conservation and restoration projects of mountains, rivers, forests, land, and lakes in the core areas associated with ecological security in a bid to secure the national ecological barriers, e.g., ecologically fragile areas in the western plateau, wind-sand source areas in the north, coastal areas in the east, high-intensity land development zones such as the Yangtze River areas, the Yellow River areas, and the Pearl River areas, etc, on the basis of their respective economic and ecological functioning as well as major ecological risks.</p> <p>Examples of eligible projects include mining site environmental restoration, land remediation and pollution restoration, biodiversity protection, watershed environmental protection governance, as well as systematic and comprehensive ecosystem management and restoration activities such as land remediation, vegetation restoration, river and lake system inter-connection, shoreline environment remediation, wildlife habitat restoration, and control of alien invasive species, etc.</p>
		4.2.1.8 Comprehensive Treatment of Key Ecological Areas	<p>Comprehensive management of Beijing-Tianjin wind-sand source areas and karst rocky desertification areas.</p> <p>Ecological protection and construction of key ecological regions such as the three-river-source area in Qinghai including planting windbreak forests, turning farmland back to grassland and forests, wetland restoration and protection, nature reserve construction, etc.</p>

<b>Sector</b>	<b>Program</b>	<b>Description/Condition</b>
	4.2.1.9 Ecological Restoration of Degraded Mining Areas	<p>Activities of gradually restoring and rebuilding the ecological function from various ecological damages and pollutions caused by mineral resources exploration and selection, which take advantage of manual intervention measures as well as ecosystem's self-regulation capabilities.</p> <p>Examples of eligible projects include remediation of mining wasteland, vegetation restoration, backfilling of mines, boreholes, and abandoned mines near important facilities/infrastructures such as rivers, lakes, and sea defenses, land reclamation at mining areas, restoration of subsidence areas, air, water and soil pollution prevention and treatment at mining areas, comprehensive utilization of wastes such as tailings, reducing land occupation, etc.</p>
	4.2.1.10 Comprehensive Treatment of Desertification, Rocky Desertification and Soil Erosion	<p>Treatment of desertification, based on local conditions, including sand control measures (such as returning farmland to forests and grassland, turning grazing land back to grassland, closing sand areas for cultivating forests and grassland, planting grass and afforestation, etc); sand control measures by physical measures, (such as building mechanical sand barriers as well as plant barriers, etc.); sand control measures using chemical measures in barren areas due to scarce water resource (such as using soil coagulants to consolidate quicksand surface).</p> <p>Comprehensive treatment in rocky desertification areas including construction and development of returning farmland to forests and grassland, afforestation and land remediation, construction of eco-economic forests, construction and development of water conservation forests, forests for water and soil conservation, natural afforestation through hillside closure, etc.</p> <p>Soil erosion comprehensive treatment activities by engineering measures, such as slope management (e.g., construction of terraced fields, tablelands, fish-scale pits), trench management (e.g., dirt dams, sand retention dams), and small water conservancy projects, and by biological measures, such as afforestation and grass planting, with the development model of soil and water conservation agriculture production projects.</p>

<b>Sector</b>	<b>Program</b>	<b>Description/Condition</b>
	4.2.1.11 Drought and Flood Management for Water-Related Ecosystem	Construction and operation of restoration of natural water system connectivity, water conservancy facilities, wetland restoration, disaster warning information platform, and other water ecosystem disaster prevention and response facilities.
	4.2.1.12 Management and Restoration of Groundwater Overdrawn Zones	Treatment and restoration in groundwater overdrawn areas including water-saving transformation projects of irrigation areas in the groundwater overdrawn areas (e.g., north China, northeast China), high-efficiency water-saving field irrigation projects, structural adjustment of crop planting species for water-saving purposes, industrial water-saving transformation, urban water supply pipe network reconstruction, recycling water utilization projects, water transfer and water conservancy projects, groundwater source replacement projects, and ecological water replenishment projects, etc.
	4.2.1.13 Comprehensive Management of Coal Mining Subsidence Areas	Ecological restoration activities such as land remediation, ecological restoration and environmental remediation in coal-mining subsidence areas, as well as activities such as relocation of residents within the influenced areas of coal-mining subsidence, restoration and upgrading of infrastructure and public service facilities, and construction of a platform for non-coal alternative industries, etc.
	4.2.1.14 Comprehensive Management of Sea Areas, Coastal Zones and Islands	Comprehensive sea area management, natural shoreline restoration, bay remediation projects for the purpose of protecting the natural resources, ecological environment and biodiversity of coastal waters, coasts, and islands.

Sector		Program	Description/Condition
	4.2.2 Supply of Ecological Products	4.2.2.1 Forest Resources Cultivation Industry	Forestry resource cultivation projects, such as variety improvement of forestry, seedling cultivation, and forest planting, tending, logging, and regeneration, etc. Sustainable business activities in line with the standards and requirements of the <i>China Forest Certification - Forest Management</i> (GB/T 28951), the <i>China Forest Certification-Production and Marketing Chain of Supervision</i> (GB/T 28952) and other relevant standards.
		4.2.2.2 Under-forest Economy of Planting and Animal Farming Industry	Agroforestry projects which do no harm to the function and stability of the forest ecosystem, including planting food crops, oil crops, medicinal herbs, edible fungi, forages, and vegetables under trees, and silvopastoral projects which breed, graze, and feed livestock under trees. Construction of green product traceability system, platforms for green product production, trade and other related activities in line with the <i>China Forest Certification and Forest Management</i> (GB/T 28951), the <i>China Forest Certification -Non-wood Forest Product Management</i> (LY/T 2273) and other relevant standards.
		4.2.2.3 Carbon Sequestration Forest, Tree and Grass Planting and Seedlings, and Ornamental Flowers	Tree/grass cultivation and planting projects with significant impact on carbon sequestration, environmental improvement, or air purification. Tree planting activities that protect biodiversity.
		4.2.2.4 Forest Recreation and Health Rehabilitation Industry	Construction of eco-sightseeing, recreation, culture, sports, and health care facilities based on natural resources such as forests, grasslands, wetlands, deserts, and wild animals and plants without damaging surface vegetation, biodiversity and ecosystems. Sustainable business activities that meet the requirements of the <i>China Forest Certification-Forest Management</i> (GB/T 28951) and relevant standards.

Sector		Program	Description/Condition
		4.2.2.5 Protective Operation of National Parks, World's Heritages, National Scenic Spots and Historic Interest Areas, National Forest Parks, National Geo-Parks, and National Wetland Parks	Development and construction for the purpose of protecting forests, grasslands, deserts, wetlands, oceans, and other natural ecosystems, including construction and operation of national parks, world natural heritage sites, forest parks, wetland parks, desert parks, etc. Sustainable business activities in the permitted areas that meet the requirements of the <i>China Forest Certification-Forest Management</i> (GB/T 28951), the <i>China Forest Certification-Forest Ecological Environment Service-Nature Reserve</i> (LY/T 2239), the <i>China Forest Certification-Forest Park Ecological Environment Service</i> (LY/T 2277), the <i>China Forest Certification-Wildlife Feeding and Management</i> (LY/T 2279) and other relevant standards.
<b>5. Sustainable Upgrade of Infrastructure</b>			
5.1 Energy Efficiency Improvement	5.1.1 Energy Efficiency and Energy Use in Urban Power Facilities	5.1.1.1 Operation and Upgrade of Cleaning construction of Urban Central Heating Systems	Construction of urban centralized heating facilities using low-grade industrial waste heat sources, combined heat and power heat sources, or clean energy sources such as electricity and natural gas to replace loose coal and decentralized coal-fired boilers to meet the requirements of clean heating in the construction of urban centralized heating facilities; and energy-saving and environmental protection technological transformation of central heating facilities such as centralized heating boilers and heating pipeline networks in cities and towns.
		5.1.1.2 Operation and Upgrade of Urban Power Facilities into Smart Power Facilities	Development and construction of urban electricity demand management platform, technical upgrading of urban electricity distribution networks, intelligence improvement of electronic equipment, and replacement and upgrading of highly polluting and energy-inefficient equipment, etc.

Sector		Program	Description/Condition
		5.1.1.3 Construction and Operation of Integrated Power System in Urban and Rural Areas	Construction and operation of integrated urban energy supply facilities, such as multiple energy complementary utilization facilities, distributed energy supply facilities or systems, and intelligent microgrids.
5.2 Sustainable Buildings	5.2.1 Energy-Saving Buildings and Green Buildings	5.2.1.1 Construction of Ultra-Low Energy Consumption Buildings	Construction of public and residential buildings adapted to climate characteristics and site-specific conditions that reduce the demand for heating, air conditioning and lighting through passive building designs, and adopt active technical measures to improve the efficiency of building energy equipment and systems in the public and residential building as well as the acquisition of consumption. The technical indicators of the building shall meet the requirements of the “ <i>Technical Standard for Near-Zero Energy Building</i> ” (GB/T 51350).
		5.2.1.2 Green Buildings	All civil and industrial buildings are designed and constructed in accordance with the national green building codes and standards to obtain national green building evaluation labels within the validity period. For example, the building should comply with indicators as listed in technical standards, such as the “ <i>Green Building Evaluation Standard</i> ” (GB/T 50378), the “ <i>Green Industrial Building Evaluation Standard</i> ” (GB/T 50878), the “ <i>Green Ecological Area Evaluation Standard</i> ” (GB/T 51255), the “ <i>Green Office Building Evaluation Standard</i> ” (GB/T 50903), the “ <i>Green Store Building Evaluation Standard</i> ” (GB/T 51100), the “ <i>Green Hospital Building Evaluation Standard</i> ” (GB/T 51153).
		5.2.1.3 Application of Renewable Energy in Buildings	Design, construction, and application of renewable energy application systems for buildings that use solar photovoltaic devices installed on roofs and walls of building to supply electricity to buildings, those use heat pumps and other facilities to provide cooling and heating to buildings.



<b>Sector</b>	<b>Program</b>	<b>Description/Condition</b>
	5.2.1.4 Prefabricated Buildings	Construction of buildings using prefabricated components at construction site through the method of assembly construction. The building-related technical indicators should meet or exceed the requirements of Grade A and under the <i>Evaluation Standard for Assembled Buildings</i> (GB/T 51129) within the validity period.
	5.2.1.5 Energy Conservation and Environmental-friendly Renovation of Existing Buildings	Technical indicators of the building meet relevant national or local energy conservation standards for existing buildings and relevant requirements for energy-saving renovation activities of building energy systems after renovation. Renovation, operation, and purchase of the existing buildings which have obtained relevant national green building star-level with the validity period; and the renovation, operation and purchase of existing building that have reached the national-relevant green building star-level within the validity period after renovation. For example, the building technology complies with technological standards such as the <i>Statistical Standard for Civil Buildings</i> (GB 50352), the <i>Standard for Energy-Saving in Public Buildings</i> (GB 50189) and the <i>Standard for the Evaluation of Green Retrofit of Existing Buildings</i> (GBT 51141).
	5.2.1.6 Green Warehousing Logistics	Construction, operation and renovation of logistics warehouses in accordance with the national green building codes and standards, for which they have obtained national green building evaluation marks. For example, the technical indicators of green logistics warehouse building shall meet the requirements of the <i>Green Warehouse Requirements and Evaluation</i> (SB/T 11164).

<b>Sector</b>		<b>Program</b>	<b>Description/Condition</b>
5.3 Pollution Prevention	5.3.1 Urban Environmental Infrastructure	5.3.1.1 Construction and Operation of Facilities for Sewage Treatment, Recycling, and Sludge Treatment and Disposal	Construction, operation and upgrading of urban and rural sewage treatment and recycling facilities. Construction, operation, and upgrading of sludge disposal facilities. Construction and operation of the regional recycled water circulation system in accordance with the concepts of pollution control, ecological protection and recycling, including the construction and operation of ecological treatment facilities such as artificial wetlands that treat water discharged from urban wastewater treatment plants that have met corresponding standards, and the operation and maintenance of the recycled water dispatch and management system of the regional recycling system for recycled water.
		5.3.1.2 Construction and Operation of Garbage Treatment Facilities	Construction and operation of facilities that reduce domestic waste; carry out harmless disposal treatment management and utilize resources, such as domestic waste collection, transfer, incineration, power generation, heating and other facilities
		5.3.1.3 Inspection, Upgrade, Construction and Renovation of Urban Sewage Collection System	Inspection, dredge; repair and renovation of urban sewer network; construct and renovate sewage (rain) storage facilities; develop and operate geographic information system (GIS) for sewer network.
		5.3.1.4 Construction and Operation of Environment Monitoring System	Construction and operation of environmental monitoring systems such as the atmosphere, surface water (water containing functional areas and farmland irrigation water), groundwater, drinking water sources, soil, greenhouse gas, noise, radiation, including the hardware purchase, installation and construction of systematic sampling and analysis equipment, monitoring instruments, computers, monitoring vehicles, drones, inspection balloon, etc. For example, long-term operation and maintenance of early warning systems for environmental risks in industrial parks, mobile monitoring and early warning equipment, early warning platforms, servers, etc.

<b>Sector</b>		<b>Program</b>	<b>Description/Condition</b>
		5.3.1.5 Inspection and Rectification of Sewage Pollution Discharge Outlets to Rivers and Standardization of Sewage Discharge	Inspection, investigation, surveying and mapping activities of pollution discharge outlets to the river through various technical means; and the construction and operation of cleaning and remediation, reconstruction, repairing, maintenance and monitoring of sewage outlets into rivers.
5.4 Water Saving and Non-conventional Water Resources	5.4.1 Water Saving	5.4.1.1 Construction and Operation of Leakage Control in District Measurement of Urban Water Supply Pipeline Network	Construction, operation and upgrading of urban public water supply facilities, as well as the construction and renovation of the water pipe network leakage monitoring system facilities, such as water supply network flow measurement , water quality monitoring, pressure control, data collection and remote transmission.
	5.4.2 “Sponge” City for Flood Prevention	5.4.2.1 Construction and Operation of Sponge Buildings and Communities	Construction and operation of sponge-type buildings and communities in which buildings and communities have adopted engineering technical means such as green roofs, permeable ground paving, micro-topography, raingardens, rainfall pipe disconnection, rainwater storage, and collection and utilization facilities.
		5.4.2.2 Construction and Operation of Sponge Roads and Squares	Use of permeable pavement in non-motorized vehicles lanes, sidewalks, parking lots, squares and other places; construction of facilities to collect, purify and utilize rainwater in roads and squares; construction and operation of sponge-type roads and squares that are carried out by technical measures, such as biological retention zones, environmental protection gutters, cyclone sedimentation and other road stormwater runoff pollution prevention and treatment facilities.
		5.4.2.3 Construction and Operation of Sponge Parks and Greenspace	Construction and operation of sponge parks and green spaces in urban parks and public green spaces through technical measures such as construction of raingardens, recessed green spaces, artificial wetlands, and rainwater reservoir facilities.

<b>Sector</b>		<b>Program</b>	<b>Description/Condition</b>
		5.4.2.4 Construction, Operation and Renovation of Up-to-standard Urban Drainage Facilities	Construction, operation and renovation of urban drainage and flood control facilities that meet corresponding standards, such as flood-prone urban drainage reform, construction and renovation of separate rainwater and sewage systems; rainwater shoreline purification facilities; coastal dry pipes; sediment filtration, artificial wetlands, other overflow wastewater purification facilities and rainwater storage facilities, etc.
		5.4.2.5 Restoration of the Natural Ecology of Urban Water Bodies	Restoration and protection of natural connectivity of river and lake systems, river system remediation projects, ecological restoration activities which aim for the protection and restoration of natural ecosystems of urban water bodies. For instance, the transformation of canalized rivers, and the restoration of naturally curved riverbanks, natural pool shallows and floodplains.
		5.5.1.1 Construction and Operation of Electronic Toll Collection (ETC) System	Construction and operation of electronic toll collection (ETC) systems for highways, urban bridges, tunnels, and parking spaces, etc.
		5.5.1.2 Construction and Operation of Multimodal Container Transportation System	Construction and operation of multimodal transportation system for general containers, commodities, dangerous goods, vehicles, express packages and other supplies.
		5.5.1.3 Construction and Operation of Smart Transportation	Construction and operation of smart transportation information system facilities and smart logistics facilities, including traffic information collection and disclosure systems, traffic command center systems, road network integrated management systems, smart bus systems, integrated passenger transportation hub information systems, etc.

<b>Sector</b>		<b>Program</b>	<b>Description/Condition</b>
		5.5.1.4 Construction and Operation of None-motorized Transportation System	Construction of urban walking and cycling transportation systems, including public bicycle rental sites, non-motorized vehicle parking facilities, road crossing facilities and other slow-moving urban systems.
		5.5.1.5 Construction and Operation of Public Transportation System in Urban and Rural Areas	Construction and operation of subways, light railways, tram and other urban rail transportation infrastructure; construction and operation of high-capacity public transportation facilities such as bus rapid transit (BRT) bus stations, routes and other infrastructure; purchase of public transportation vehicles, etc.
		5.5.1.6 Construction and Operation of Facilities for Shared Transport	Construction and operation of shared transportation infrastructure, such as systems for public rental bicycles, online bicycle rental, online electric bicycle rental, online car rental, car sharing, parking facilities and equipment, and bicycle parking facilities.
		5.5.1.7 Construction and Operation of Drop and Pull Transport System	Renovation, construction and operation of drop and pull operation sites and drop and pull transportation management information systems
	5.5.2 Railway Transport	5.5.2.1 Construction and Operation of Rail Freight Transport and the Environmental-Friendly Transformation of Railways	Construction and operation of freight railway facilities such as freight railway routes, yards and stations, and special power substations; construction and operation of existing railway electrification, yards and stations and relevant energy-saving and environmental protection renovation projects. Among all, railway yards and stations must meet the relevant provisions of the <i>Green Railway Passenger Station Evaluation Standard</i> (TB/T 10429).
	5.5.3 Waterway and Air Transport	5.5.3.1 Construction of Power Supply Facilities at Ports, Docks and Airport Bridges	Construction and operation of facilities for the supply of electricity to ports and shore-based ships; construction of power supply facilities for airport bridges.

<b>Sector</b>		<b>Program</b>	<b>Description/Condition</b>
	5.5.4 Clean Energy Vehicle Facilities	5.5.4.1 Construction and Operation of Charging, Battery Replacement, Hydrogen Refueling and Gas Refueling Facilities	Construction and operation of electric vehicle battery charging stations, hydrogen refueling facilities and gasification facilities and other relevant infrastructure and facilities for clean vehicles.
5.6 Ecological Protection and Construction	5.6.1 Urban Ecological Protection and Construction	5.6.1.1 Construction, Maintenance and Operation of Parklands	Construction, maintenance and operation of urban parks, greenspaces, community parks, playgrounds and other green public facilities.
		5.6.1.2 Construction, Maintenance and Operation of Greenway Systems	Construction, maintenance, and operation of urban greenways and supporting stations, signage systems and other auxiliary facilities.
		5.6.1.3 Construction, Maintenance and Operation of Green Space Attachments	Construction, maintenance, and operation of green spaces attached to urban areas such as administration and public services land use, commercial and business facilities land use, industrial and manufacturing land use, logistics and warehouse land use, square land use, and other municipal utilities land use, etc.
		5.6.1.4 Construction and Maintenance of Road Greening	Construction, maintenance and management of all levels and types of urban greenery such as separated green belts, roadside green belts, green roundabouts.
		5.6.1.5 Construction, Maintenance and Operation of Regional Greenspace	Construction, maintenance, and operation of regional green spaces such as urban country parks, wetland parks, and protected green spaces, etc.
		5.6.1.6 Construction and Maintenance of Vertical Greening	Vertical greening and maintenance of roofs, walls, bridges and tunnels of urban buildings.
<b>6. Green Services</b>			

<b>Sector</b>		<b>Program</b>	<b>Description/Condition</b>
6.1 Consultancy	6.1.1 Green Consulting Technical Services	6.1.1.1 Green Industry Project Survey Services	Survey services related to the development and surveying of renewable energy resources such as wind, solar, biomass, geothermal and other green energy resources; technical consulting services related to the assessment of the potential commercial use of green resources (such as renewable energy), and the assessment of the potential scale for the construction for of such green projects.
		6.1.1.2 Green Industry Project Design Services	Technical consulting services related to project design, construction, operation management, maintenance plan design, technical reformation plan design and other technical services for renewable energy, energy efficiency, pollution prevention, comprehensive utilization of resources and other green industry projects.
		6.1.1.3 Technical Consultancy for Green Industry Projects	Technical consulting services related to due diligence, research planning and preparation, feasibility study and feasibility study report preparation, risk assessment, post-evaluation, green project financing and talent training for renewable energy, energy efficiency, pollution prevention, comprehensive utilization of resources and other green industry projects.
		6.1.1.4 Clean Production Audit Services	Technical consulting services related to comprehensive investigation and diagnosis of enterprises' production process and management of such process, including identification of the weak links in terms of the raw materials used, technological process, production, pollutant emissions and other aspects, and subsequently develop a clean production reform program.

Sector		Program	Description/Condition
6.2 Operation Management Services	6.2.1 Green Operation Management Services	6.2.1.1 Construction of Power Management System	Management consulting services related to energy management system development, software development, information platform construction, energy management system certification services and other management consulting service. Construction of power management system shall meet the requirements of national standards such as the <i>Energy Management System Requirements</i> (GB/T 23331) and the <i>Energy Management System Implementation Guide</i> (GB/T 29456).
		6.2.1.2 Energy Performance Contracting Services	Energy-saving technology improvement services related to the sharing of benefits from energy-saving, energy cost custody, energy-saving performance contract, and financial leasing; other consulting services related to consulting for the business models of energy management contracting, financing consulting, etc. These shall meet the requirements of national standards such as the <i>General Rules of Energy Management Contract Techniques</i> (GB/T 24915).
		6.2.1.3 Power Demand-side Management Services	Providing electricity users and grid enterprises with electricity saving technology transformation services, peak reclamation, demand-side response and other orderly power consumption management consulting services, power substitution technology reformation, and power demand-side management services, in order to prevent power wastage, reduce power consumption, improve the level of synergy between green power production and consumption, promote the grid's capacity for renewable energy power consumption and the level of renewable energy power consumption by power users, as well as implementing atmospheric environmental governance and protection through power substitution.



<b>Sector</b>		<b>Program</b>	<b>Description/Condition</b>
	6.2.2 Environmental Rights Transaction Services	6.2.2.1 Provision of Services for Energy-use Rights Transactions	Providing services related to energy-use rights transactions including energy-use rights trading-related calculation and accounting, third-party audits, legal consultation, platform construction, assets management and operation, financial pledge and power-saving scheme consultation.
		6.2.2.2 Provision of Services for Water-use Rights Transactions	Providing services related to water-use rights transactions including water rights trading-related feasibility analysis, reference price verification, trading scheme design, legal and technical consulting, platform construction and other related services.
		6.2.2.3 Pollutant Discharge Permit and Transaction Services	Providing services related to pollutant discharge permit transactions including permit license application and review, accounting records and execution reports, audit compliance or consultation, legal consultation, financial pledge of pollutant discharge rights, and information on pollutant discharge platform construction and other services related to permits and trading of pollutant discharge rights.

<b>Sector</b>	<b>Program</b>	<b>Description/Condition</b>
	6.2.2.4 Carbon Emission Trading Services	<p>Providing carbon credits related services including carbon emissions and voluntary national greenhouse gas emission reduction trading-related services, statistical accounting, registration and change of carbon allowances, legal services for carbon trading, consultation on carbon reduction programs, carbon finance, carbon information management services and other carbon credit related services. Carbon emission accounting shall comply with “<i>Greenhouse Gas Emission Accounting and Reporting Requirements</i>” (GB/T 32151) when carrying out accounting and reporting activities of greenhouse gas emissions. Greenhouse gas emission reduction assessment based on emission reduction projects shall refer to <i>Technical Specification for Project-based Estimation of Greenhouse Gas Emission Reduction-Steel Industry Residue Energy Utilization</i>(GB/T 33755), “<i>Technical specification at the project level for assessment of greenhouse gas emission reductions—Alternative of raw materials in cement clinker production industry</i>”(GB/T 33756), <i>Technical Specification for Project-based Estimation of Greenhouse Gas Emission Reduction-General Requirements</i> (GB/T 33760) and other national standards.</p>
	6.2.2.5 Renewable Energy Certificate (Green Tags) Trading Services	<p>Providing related services on renewable energy certification transaction including green power certificate subscription and transaction, transaction -related legal advisory services, and transaction-related information platform construction.</p>

Sector		Program	Description/Condition
6.3 Audit, Inspection and Evaluation of Projects	6.3.1 Audit, Inspection and Evaluation of Projects	6.3.1.1 Energy-Saving Assessment and Energy Audit	Providing services related to energy efficiency assessment of energy-using units, technical consulting services on energy-saving retrofit plan design and third-party energy audit, energy saving assessment, energy audit training, energy-saving assessment and energy audit-related services such as energy-saving report preparation services for fixed asset investment projects. All these shall meet the requirements of <i>Energy Saving Calculation Methods for Energy Consumption Unit</i> (GB/T 13234), <i>General Rules for Energy Saving Measurement and Verification</i> (GB/T 28750), <i>General Rules for Energy Audit</i> (GB/T 17166) and other national standards.
		6.3.1.2 Evaluation of Environment Impact	Providing related technical services including comprehensive evaluation of environmental impacts, design of environmental impact solutions, legal consultation on environmental impacts, building database on environmental impacts. Preparation of negative lists based on ecological protection “red line”, environmental quality “bottom line”, resource utilization ceilings and environmental admission. Providing related information technology services such as environmental risk assessment of construction projects, administrative regions, industrial parks, preparation of environmental emergency control plans, and formulation of environmental emergency plans.
		6.3.1.3 Verification of Carbon Emission	Providing related technical services on carbon emission verification, such as third-party verification of carbon emissions, training of carbon emission verifiers, construction of carbon emission verification database, carbon emission verification results sampling and verification services.

<b>Sector</b>		<b>Program</b>	<b>Description/Condition</b>
		6.3.1.4 Evaluation of Geological Disaster Hazards	Providing related technical consultation services including geohazard risk assessment such as landslides, collapse, mudslides, debris flows, ground subsidence, ground fissures, ground subsidence and other geological hazards risk assessment, vulnerability assessment of disaster areas, damage assessment of geological hazards, etc.
		6.3.1.5 Evaluation of Soil and Water Conservations	Providing related technical services including soil and water conservation plan preparation, monitoring and evaluation of construction projects, soil and water conservation facility acceptance, third-party assessment, soil and water conservation information supervision, soil and water conservation legal consultation and other technical services related to soil and water conservation evaluation.
6.4 Monitoring and Detection	6.4.1 Monitoring and Detection	6.4.1.1 Building of Online Energy Monitoring System	Providing related technical services on online energy monitoring and management system design, hardware equipment procurement, measurement and online monitoring equipment calibration and others, as well as system software development and information platform construction. These shall meet the requirements of national standards such as <i>Technical Requirements for Online Monitoring of Energy Consumption</i> (GB/T 38692).
		6.4.1.2 Monitoring of Polluting Sources g	Providing pollution source monitoring related services including pollution source monitoring system development, pollution source monitoring equipment procurement, pollution source monitoring application software development, database construction, pollutant emission measurement and monitoring equipment calibration.

<b>Sector</b>	<b>Program</b>	<b>Description/Condition</b>
	6.4.1.3 Monitoring and Evaluation of Environmental Damage	Providing related technical and legal consultation services including environmental damage assessment and monitoring program design, environmental damage identification and assessment, environmental damage-related emergency resolution plan design, legal consultation services, insurance services.
	6.4.1.4 Monitoring and Assessment of Environmental Impact	Providing related technical consultation services including environmental impact assessment monitoring of water, atmosphere, soil, noise and vibration, environmental damage, emergency resolution program design and environmental impact-related legal advice.
	6.4.1.5 Environmental Monitoring for Enterprises	Providing related technical consultation services including enterprise environmental monitoring equipment procurement, environmental monitoring services, pollutant monitoring personnel training and other technical consultation services, construction of information platforms including environmental monitoring software, hardware development, database building, etc, and conforming to national standards such as <i>Data Interface Specification for Public Platform of Circular Economy Informationization in Industrial Park</i> (GB/T 36578).
	6.4.1.6 Monitoring of Ecological Environment	Providing related technical consultation services including ecological and environmental monitoring of water, air, soil, solid waste, groundwater, ocean, agricultural non-point source pollution, radiation and other; monitoring and technical services related to emergency ecological environmental events; monitoring of agricultural waste resources, land resources, water resources, monitoring of forestry and grassland carbon sink, ecological remote sensing, ecological community, biological diversity, soil and water conservation and other monitoring services; toxicity testing and other ecological/environment monitoring related technical services.

<b>Sector</b>		<b>Program</b>	<b>Description/Condition</b>
6.5 Promotion and Certification of Technical Products	6.5.1 Promotion and Certification of Technical Products	6.5.1.1 Promotion and Certification of Energy Saving Products	Energy-saving certification and promotion services for office and commercial electrical products such as computers, photocopiers, monitors, shredders and servers, and electromechanical products such as small and medium-sized three-phase asynchronous motors (including green label products).
		6.5.1.2 Promotion and Certification of Low-Carbon Products	Low-carbon product certification and promotion services (including green-labeled products) for industrial, commercial, and civil products with significant carbon emission reduction benefits from product carbon footprint evaluation and full life-cycle product production and consumption, such as cement, glass and other building materials products, motors, transformers, tires and other mechanical and electrical products.
		6.5.1.3 Promotion and Certification of Water Saving Products	Certification and promotion of water-saving products (including green-labeled products) including industrial and residential reverse osmosis water purifiers, faucets, showers, water tank accessories, washing machines and other water-saving products with significant water-saving benefits.
		6.5.1.4 Promotion and Certification of Environmental Labeling Products	Environmental label product certification and promotion services (including green label products) that meet the specific environmental protection requirements, such as environmental labeling of electronic appliances, building materials, mechanical equipment, and other product certification and promotion services.

Sector	Program	Description/Condition
	6.5.1.5 Promotion and Certification of Organic Food	Certification and promotion (including green label products) services of agricultural product and food product and its production environment which meet the national standard of <i>Organic Products</i> (GB / T 19630.1-GB / T 19630.4) and other national standards within the validity period, including vegetable and fruit planting industry products, edible fungi, wild plant products, aquatic products, livestock and poultry farming products, etc., as well as certification and promotion of organic product including animal feed.
	6.5.1.6 Promotion and Certification of Green Food	Certification and promotion services of green food including food products or the origin of the raw materials conforms to the green food related eco-environmental standards within the validity period, the processing production process conforms to the green food related production operation regulations, and the products comply with the green food certification and promotion services such as green food related quality and hygiene standards. For example the certification and promotion services of green food of vegetables, fruits, meat and meat products.
	6.5.1.7 Assertion and Promotion of Products with Comprehensive Utilization of Resources	Identification and promotion services for products included in the <i>National Catalogue of Integrated Resource Utilization of Industrial Solid Waste (2018 Edition)</i> within the validity period, and identification and promotion services for remanufactured products included in the <i>Catalogue of Remanufactured Products</i> .

<b>Sector</b>	<b>Program</b>	<b>Description/Condition</b>
	6.5.1.8 Promotion and Certification of Green Building Materials	Certification and promotion services for green building materials such as energy-saving glass, thin ceramic tiles, masonry materials and other green building materials that meet the requirements of policies and specifications such as <i>Regulations on the Administration of Green Building Materials Evaluation and Labeling</i> (published in 2015) and <i>Technical Guidelines for the Evaluation of Green Building Materials (Trial) (First Edition)</i> (published in 2015).

Note:

1. Projects to be included in this catalogue shall meet the requirements listed in the explanatory notes of the Green Industry Guidance Catalogue (2019 Edition) and the corresponding "Instructions/Conditions" of this catalogue;
2. Projects to be included in this catalog shall comply with relevant safety, environmental protection and quality regulations and policies;
3. Policy documents and standard specifications referred to in this Catalogue are the latest version and within the validity period;
4. The English version of the catalogue may only be used as a reference. In case a different interpretation of the translated information arises, the original Chinese shall prevail.