

# Catalogue of Industries Encouraging Foreign Investment

(2022 Edition)

This Catalogue is formulated to implement the Foreign Investment Law and its implementing regulations, and to encourage and guide foreign investors to invest in specific industries, sectors, and regions in accordance with the needs of national economic and social development.

This Catalogue consists of two parts: the National Catalogue of Industries Encouraging Foreign Investment and the Catalogue of Industries with Advantages for Foreign Investment in Central and Western Regions.

The Catalogue of Industries Encouraging Foreign Investment (2020 Edition) issued by the National Development and Reform Commission and the Ministry of Commerce on December 27, 2020, shall be repealed as of January 1, 2023.

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## National Catalogue of Industries Encouraging Foreign Investment

### I. Agriculture, Forestry, Animal Husbandry, and Fisheries

1. Planting, development, and production of woody edible oilseeds, spices, and industrial raw materials
2. Development of cultivation techniques, planting, and production of green and organic vegetables (including edible fungi, watermelons, and cantaloupes), dried and fresh fruits, and tea
3. Breeding, cultivation, and production of wine grapes
4. Breeding, cultivation, and production of beer raw materials
5. Development of new cultivation techniques and product production for sugar crops, fruit trees, forage crops, and other agricultural products
6. Breeding and development of new varieties of high-yield, high-efficiency silage feed crops
7. Flower production and establishment/operation of nursery bases
8. Rubber, oil palm, sisal, and coffee cultivation
9. Breeding and cultivation of aromatic plants, extraction of essential oils
10. Cultivation and farming of traditional Chinese medicinal herbs
11. Comprehensive utilization of crop straw resources; development and production of organic fertilizer resources
12. Forest resource cultivation (fast-growing high-yield timber forests, large-diameter timber forests, bamboo forests, economic forests such as camellia oleifera, and timber forests of precious tree species)
13. Understory ecological cultivation and farming

14. Development and application of standardized large-scale livestock and poultry farming techniques and intelligent farming technologies
15. Breeding of Livestock and Aquatic Seedlings (excluding China's unique precious and superior breeds)
16. Construction and management of ecological conservation projects including desertification control, soil and water conservation, and national greening
17. Aquaculture, deep-water cage farming, industrial aquaculture, and ecological marine enhancement and aquaculture
18. High-efficiency water-saving irrigation, farmland soil improvement and ecological remediation, comprehensive utilization of backup resources such as saline-alkali land, green farmland construction and related technology development and application; rural environmental remediation, rural domestic sewage and waste management, water ecological environment remediation and restoration related project construction and technology development and application
19. Construction of agricultural product storage, preservation, and cold chain logistics facilities
20. Smart agriculture (software technology and equipment integration, digital transformation of agricultural production and management)
21. Rural e-commerce and emerging rural services, including agricultural production services adapted to scaled, standardized, and mechanized farming, as well as rural living services
22. Leisure agriculture and rural tourism, including leisure sightseeing, agricultural experience programs, outdoor team-building activities, ecological wellness, and labor education practice bases
23. Safe, efficient, and environmentally friendly feed and feed additives (including vitamins, methionine, and feed enzymes), development and production of alternative products to antimicrobial drugs for animal growth promotion

## **II. Mining Industry**

24. Exploration, development, and utilization of coal mine gas for petroleum and natural gas (including shale gas and coalbed methane)
25. Enhanced oil recovery (EOR) services and development/application of related technologies
26. Development and application of new technologies for petroleum exploration and development, including geophysical prospecting, drilling, well logging, and downhole operations
27. Development and application of new technologies to enhance tailings utilization rates and comprehensive application of mine ecological restoration technologies
28. Exploration, mining, and beneficiation of critical minerals in China (e.g., potash, chromite ore)

## **III. Manufacturing**

### **(1) Agricultural and Sideline Food Processing Industry**

29. Pet food and food product development and production
30. Aquatic product processing, shellfish purification and processing, development of seaweed health foods

31. Processing of vegetables, dried and fresh fruits, poultry and livestock products

(2) **Food Manufacturing**

32. Development and production of ultra-high temperature (UHT) sterilized milk (pasteurized at 132°C for a very short duration)
33. Production of cheese, processed cheese, and cheese products
34. Development and production of infant formula, infant complementary foods, foods for special medical purposes, and health foods
35. Development and production of baked goods (including chocolate and chocolate products made from natural cocoa beans), convenience foods, ice cream, and related ingredients
36. Production of candies, chewing gum, preserved fruits, and yogurt
37. Forest food processing
38. Development and production of plant-based meat alternatives
39. Development and production of natural food additives and natural flavorings using new technologies
40. Development and production of aseptic liquid food packaging materials
- (3) Alcoholic beverages, beverages, and refined tea manufacturing**
41. Development and production of fruit and vegetable juices and beverages, protein beverages, tea beverages, coffee beverages, and plant-based beverages

#### **(IV) Textile Industry**

42. Production of functional industrial textiles using nonwoven, woven, knitted, braided, and 3D knitted processes, as well as composite techniques and long-lasting finishing technologies
43. Production of high-end textile fabrics using digital and intelligent printing and dyeing equipment, clean production techniques in dyeing and finishing (enzyme treatment, high-efficiency short-process pretreatment, continuous flat pretreatment for knits, low-temperature pretreatment and dyeing, low-salt or salt-free dyeing, low-urea printing, low-bath-ratio airflow or air-liquid dyeing, digital inkjet printing, foam finishing, etc.), functional finishing technologies, novel dyeing processing techniques, and composite fabric processing technologies  
Development and Application of Intelligent Yarn Dyeing Technology and Equipment
44. Processing technologies and product manufacturing for environmentally compliant specialty animal fibers, hemp fibers, mulberry and oak silks, colored cotton, and colored mulberry cocoon silk natural fibers
45. Sorting, recycling, and utilization of waste textiles
46. Production and R&D of therapeutic medical textiles, artificial skin, absorbable sutures, hernia repair materials, novel dialysis membrane materials, interventional catheters, and high-end functional biomedical dressings

#### **(V) Textile, Apparel, and Accessories Industry**

47. Production of high-count cotton yarn
48. Production of garments and semi-finished garments using computer-integrated manufacturing systems

49. Production of functional specialty apparel

**(VI) Leather, Fur, Feather, and Related Products and Footwear Industry**

50. Clean processing technologies for leather and fur

51. New post-finishing processing technologies for leather

52. Comprehensive utilization of leather waste

53. Production of High-Performance Elastomer Footwear Materials

**(VII) Wood Processing and Wood, Bamboo, Rattan, Palm, and Grass Products Industry**

54. Comprehensive utilization of forestry residues, "secondary, small, and firewood" materials, waste wood and bamboo: development and production of **t e c h n o l o g i e s** and products; pollution control and management in wood and bamboo production; development and application of fine particulate matter reduction and dust explosion prevention technologies

55. Development and production of new technologies and products for wood structures and wood-based building materials

56. Development and Production of New Technologies and Products for Recycling Waste Wood

**(8) Manufacturing of Educational, Artistic, Sports, and Entertainment Goods**

57. Production of high-end carpets, embroidery, and lace products

**(IX) Petroleum Processing, Coking, and Nuclear Fuel Processing**

58. Phenolic oil processing, washed oil processing, anthracene oil processing, naphthalene oil processing, preparation of coal tar pitch for high-end chemicals (excluding modified asphalt)

**(10) Chemical raw materials and chemical products manufacturing**

59. Development and production of novel downstream silicone products

60. Supporting raw materials for synthetic materials: hydrogen peroxide oxidation of propylene to produce propylene oxide, hydrogen peroxide oxidation of chloroethylene to produce epichlorohydrin, dimethyl naphthalate (NDC), 1,4-cyclohexanedimethanol (CHDM), production of adiponitrile, hexamethylene diamine, and norbornene from butadiene at 50,000 tons/year or above

61. Production of polyethylene polyamines

62. Development and production of high-end polyolefins such as high-carbon  $\alpha$ -olefin copolymer metallocene polyethylene, COC/COP cyclic olefin polymers

63. Production of synthetic fiber feedstocks: 1,3-propanediol

64. Production of synthetic rubber: acrylic rubber, chlorinated rubber, and specialty rubbers including fluororubber, silicone rubber, fluorosilicone rubber, and thermoplastic polyurethane rubber

65. Engineering Plastics and Plastic Alloy Production: Polyphenylene sulfide, polyether ether ketone, polyimide, polysulfone, polyethersulfone,

polyarylate (PAR), polyphenylene ether, specialty polyamides (PA) and their modified materials, liquid crystal polymers, etc.

66. Fine Chemicals: New catalyst products and technologies, commercial processing techniques for dyes and pigments, electronic chemicals and papermaking chemicals, leather chemicals, oilfield additives, surfactants and key raw materials. Safe production technology for nitrogen-protected double-shell towers in refined ethylene oxide, water treatment agents and key raw material production. Production of high-solid, solvent-free, water-based, electron beam-curable, UV-curable, and reactive adhesives, along with key raw materials including high-end butyl acrylate, high-end octyl acrylate, polyester polyols, and curing agents. Production of sealants, adhesive tapes, and key raw materials. Production of efficient, safe, and environmentally friendly plasticizers (polyester plasticizers, etc.), halogen-free flame retardants, permanent antistatic agents, organic heat stabilizers, nucleating agents, and other novel plastic additives; production of inorganic fibers and inorganic nanomaterials; pigment coating processing and deep processing; development and production of environmentally friendly surface treatment technology products; development and production of humic acid-based fine chemical products;

67. Production of water-based inks and adhesives, low-volatility inks and adhesives (e.g., electron beam curing, UV curing), environmentally friendly organic solvent materials, and environmentally friendly organic solvent-free materials

68. Production of natural flavors, synthetic flavors, isolated flavor compounds, and the intermediate citral used in flavor components

69. Production of high-performance coatings and adhesives, high-solids, water-based, powder, radiation-curable, solvent-free, and other low-VOC industrial coatings and matching resins; water-based industrial coatings and matching water-based resins (including high-end butyl acrylate and high-end octyl acrylate)

70. Production of high-performance fluoro-resins, fluoropolymer films, medical fluorinated intermediates, and zero ODP and low GWP refrigerants compliant with international conventions

GWP refrigerants, cleaning agents, foaming agents, etc.

71. Green hydrogen production technologies (including hydrogen from chemical by-products, bio-based hydrogen, and electrolytic hydrogen from renewable energy) Development, storage, transportation, and liquefaction of

72. Production and supply of large-scale, high-pressure, high-purity industrial gases (including electronic gases)

73. Construction and operation of Carbon Capture, Utilization, and Storage (CCUS) projects

74. Production of fluorine resources recovered from phosphorous chemical processes and aluminum smelting

75. Development and production of new technologies and products for forestry chemical products

76. Development and production of inorganic, organic, and biofilms for environmental protection

77. Development and production of novel fertilizers: high-concentration potassium fertilizers, composite microbial inoculants, composite microbial fertilizers, straw and waste composting agents, specialized functional microbial preparations, humic acid fertilizers

78. Development and production of new varieties, formulations, specialized intermediates, and adjuvants for efficient, safe, and environmentally friendly pesticides; development and application of related clean production processes; production of chiral and stereospecific pesticides via directed synthesis

79. Development and production of biological pesticides and biological control products: microbial insecticides, microbial fungicides, agricultural antibiotics, biostimulants, insect pheromones, natural enemy insects, microbial herbicides

80. Comprehensive utilization, treatment, and disposal of waste gases, liquids, and residues

81. Production of organic polymer materials: aircraft skin coatings, rare earth cerium sulfide red dyes, Lead-free electronic encapsulation materials, specialized photoresist series for color plasma displays, small-diameter high-surface-area ultrafine fibers, high-precision fuel filter paper, self-healing surface-treated materials, superhydrophobic nanocoatings, ultra-high refractive index optical resins, eco-friendly recyclable co-extruded backsheets and plastic materials for solar modules, automotive start-stop lead-acid battery separators, energy storage lead-acid battery separators

82. Development, production, and application of new technologies and products for forestry biomass energy

83. Low-carbon upgrading process development for petrochemical feedstocks: electrically driven ethylene cracking; reverse water gas shift and partial oxidation processes converting carbon dioxide and light hydrocarbons into carbon monoxide

#### **(11) Pharmaceutical Manufacturing**

84. Production of novel compound drugs or active pharmaceutical ingredients (including APIs and formulations)

85. Amino acids: Fermentation-based production of tryptophan, histidine, methionine, etc.

86. Development and production of novel anticancer drugs, novel cardiovascular drugs, and novel nervous system drugs

87. Production of novel drugs using biotechnology

88. Production of novel vaccines for HIV, hepatitis C, contraception, cervical cancer, malaria, hand-foot-and-mouth disease, etc.

#### Production

89. Development and production of marine pharmaceuticals

90. Production of pharmaceutical formulations: New dosage forms and products utilizing advanced technologies such as sustained-release, controlled-release, targeted delivery, and transdermal absorption

#### Development and production of novel pharmaceutical excipients

91. Development and production of novel pharmaceutical excipients

92. Production of antimicrobial active pharmaceutical ingredients for animal use (including antibiotics and chemically synthesized compounds)

93. Production of new veterinary antimicrobial drugs, anthelmintics, insecticides, and anticoccidials in novel formulations

94. Development and production of novel diagnostic reagents

95. Research, development, and production of cell therapy drugs (excluding areas prohibited to foreign investment)

96. Development and production of novel key raw materials and large-scale cell culture products for vaccine and cell therapy drug manufacturing

Production

97. Development and production of novel pharmaceutical packaging materials and technologies (neutral borosilicate pharmaceutical glass, chemically stable,

degradable, with light-shielding and high-barrier functional materials; COP cycloolefin polymer pharmaceutical packaging materials; novel packaging and delivery systems including aerosols, powder aerosols, self-administration devices, pre-filled syringes, and automated drug-mixing systems)

98. Development and production of orphan drugs and pediatric specialty medications

99. Development and production of pharmaceutical manufacturing consumables: separation and purification media, solid-phase synthesis media, chiral resolution media, drug impurity control and detection consumables, etc.

#### **(12) Chemical Fiber Manufacturing**

100. Continuous Copolymer Modification of Differentiated, Functional Polyester (PET) [Cationic Dyeable Polyester (CDP, ECDP), Alkali-Soluble Polyester (COPET), High-Shrinkage Polyester (HSPET), Flame-Retardant Polyester, low-melting-point polyester, non-crystalline polyester, biodegradable polyester, polyester produced using green catalysts, etc.]; R&D of efficient, flexible preparation technologies for differentiated, functional chemical fibers such as flame retardant, antistatic, UV-resistant, antibacterial, phase change energy storage, photochromic, and solution-dyed fibers; Production of intelligent and ultra-realistic functional chemical fibers; Original development of green, efficient, and environmentally friendly oil agents for high-speed spinning processing

101. Development and production of high-performance fibers and products: carbon fiber (CF), aramid fiber (AF), polyimide (PI), ultra-high molecular weight polyethylene fiber (UHMWPE), polyphenylene sulfide fiber (PPS), polyimide fiber (PI), polytetrafluoroethylene fiber (PTFE), polybenzimidazole fiber (PBO), polyoxadiazole fiber (POD), Basalt Fiber (BF), Silicon Carbide Fiber (SiCF), Polyetheretherketone Fiber (PEEK), High-Strength Glass Fiber (HT-AR), Poly(2,5-dihydroxy-1,4-phenanthroline-pyridine-diazine) (PIPD) Fiber

102. Fibers and non-fibrous applications of novel polyesters: Poly(tributyl ether terephthalate) (PTT), Polyethylene naphthalate (PEN), Polycyclohexanedimethanol terephthalate (PCT), Dihydroxy-modified polyethylene terephthalate (PETG), Polylactic acid (PLA, derived from non-food biomass)

103. Production of biomass fibers using novel renewable resources and eco-friendly processes, including: Lyocell fibers (new solvent-based cellulose fibers), regenerated cellulose fibers from bamboo/hemp, PLA fibers, chitin fibers, PHA fibers, animal/plant protein fibers, PBS fibers

(PBS), etc.

104. Nylon 11, Nylon 12, Nylon 1414, Nylon 46, Nylon 56 (from non-food biomass), long-chain nylon, high-temperature-resistant nylon, and other novel polyamides; development and production of differentiated, functional, high-value-added modified nylons (including nylon elastomers, copolyamide nylons, nylon engineering plastics, flame-retardant nylons)

105. Development and production of landfill geomembranes

#### **(13) Rubber and Plastic Products Industry**

- 106. Development, production, and application of silicone products
- 107. Development, production, and application of biodegradable plastics and their products
- 108. Development and production of novel photo-ecological multifunctional wide-width agricultural films and pollution-free biodegradable agricultural films
- 109. Sorting, Recycling, and Reuse of Waste Plastics
- 110. Development and production of new technologies and products for flexible plastic packaging (high-barrier, multifunctional films and raw materials)

**(14) Non-metallic Mineral Products Industry**

- 111. Development and production of energy-saving, environmentally friendly, waste-utilizing, lightweight-high-strength, high-performance, and multifunctional building materials
- 112. Development and production of integrated molding and extrusion products
- 113. Production of energy-efficient chemical building materials substituting steel and wood with plastics
- 114. Smart manufacturing of new prefabricated building components
- 115. Annual production of 10 million square meters or more of elastomeric and plastomeric modified bitumen waterproofing membranes, wide-width (2 meters or more) EPDM rubber waterproofing membranes and supporting materials, wide-width (2 meters or more) PVC waterproofing membranes, and thermoplastic polyolefin (TPO) waterproofing membranes.
- 116. Development and production of new functional glass technologies: Infrared-transmitting lead-free sulfide glass and products, Multifunctional windshield glass with superior optical properties (light transmittance  $\geq 70\%$ ), Coated privacy windshield glass, Acoustic windshield glass, Solar windshield glass, Electrochromic windshield glass, Heated windshield glass, Head-up display windshield glass, Vacuum glass, High-purity ( $\geq 99.9\%$ ) glass. Coated privacy windshields, acoustic windshields, solar windshields, electrochromic windshields, electrically heated windshields, head-up display windshields, vacuum glass, high-purity ( $\geq 99.998\%$ ) and ultra-pure ( $\geq 99.999\%$ ) crystal raw material purification and processing
- 117. Thin-film solar power generation glass, solar concentrator glass, architectural photovoltaic power generation glass production
- 118. 80,000 tons/year and above alkali-free glass fiber roving (single filament diameter  $> 9$  microns) tank furnace drawing production, 50,000 tons/year and above alkali-free glass fiber filament (single filament diameter  $\leq 9$  microns) tank furnace drawing production, ultra-fine glass fiber (single filament diameter  $\leq 5$  microns), biodegradable glass fiber, specialty cross-section glass fiber, alkali-resistant glass fiber, low-dielectric glass fiber, quartz glass fiber, high-silica glass fiber, high-strength/high-elasticity glass fiber, ceramic fiber, and other high-performance/specialty glass fiber production; glass fiber mat, cloth, and other product manufacturing
- 119. Optical fiber and product manufacturing: imaging bundles and laser medical fibers, second-generation and third-generation microchannel plates, optical fiber panels, image inverters, and glass optical cones
- 120. Standardized refining of ceramic raw materials and production of high-grade decorative materials for ceramics
- 121. Production of long-life, energy-efficient, environmentally friendly (chromium-free) refractory materials for kilns used in cement, electronic glass, ceramics, microporous carbon bricks, etc.
- 122. Production of porous ceramics

123. Production of inorganic non-metallic new materials and products: composite materials, specialty ceramics, specialty sealing materials (including high-speed oil seal materials), specialty friction materials (including high-speed friction brake products), specialty cementitious materials, specialty latex materials, hydroacoustic rubber products, nanomaterials

124. Production of organic-inorganic composite foam insulation materials, high-performance energy-saving building insulation materials, and insulation/isolation materials for modern intensive agricultural farming

125. High-Tech Composite Materials Production: Continuous Fiber Reinforced Thermoplastic Composites and Prepregs, Temperature-Resistant >

300°C resin-based composite materials, biodegradable resin-based composites, resin-based composites for additive manufacturing, resin-based composites (including sports equipment, lightweight high-strength transportation components), specialty functional composites and products (including deep-water and submersible composite products, medical and rehabilitation composite products), carbon/carbon composites, high-performance ceramic matrix composites and products, metal matrix and glass matrix composites and products, metal laminate composites and products, ultra-high pressure composite hoses with pressure  $\geq 320$ MPa, large commercial aircraft tires, polyester structural foam materials (for lightweight high-strength transportation components, wind turbine blade cores, construction materials, etc.)

126. Precision high-performance ceramic raw material production: Ultrafine silicon carbide (SiC) powder (purity >99%, average particle size <1 $\mu$ m), silicon nitride ( $\text{Si}_3\text{N}_4$ ) ultrafine powder (purity >99%, average particle size <1 $\mu$ m), high-purity ultrafine alumina powder (purity >99.9%, average particle size <0.5 $\mu$ m), low-temperature sintered zirconia ( $\text{ZrO}_2$ ) powder

(sintering temperature < 1350°C), high-purity aluminum nitride (AlN) powder (purity > 99%, average particle size < 1 $\mu$ m), rutile-type  $\text{TiO}_2$  powder (purity > 98.5%), silica (particle size < 100nm), barium titanate (purity > 99%, particle size < 1 $\mu$ m)

127. Development and production of high-quality synthetic crystals and crystal thin-film products: high-quality synthetic quartz crystals (piezoelectric crystals and ultraviolet-transmitting crystals), ultra-hard crystals (cubic boron nitride crystals), high-temperature resistant synthetic insulating crystals (synthetic mica), novel electro-optic crystals, high-power laser crystals and large-format scintillator crystals, diamond film tools, ultra-thin synthetic diamond saw blades with thickness  $\leq 0.3$ mm

128. Non-metallic mineral fine processing (ultrafine grinding, high purity, refining, modification)

129. Ultra-high-power graphite electrode production

130. Production of pearlescent mica (particle size 3-150 $\mu$ m)

131. Production of multidimensional, multi-directional integral knitted fabrics and contour-molded fabrics

132. Utilization of new dry-process cement kilns and sintered wall materials for the environmentally sound disposal of solid waste

133. Recycling of Construction Waste

- 134. Comprehensive Utilization of Industrial Byproducts (e.g., Gypsum) and Industrial Waste
- 135. Development and application of new technologies for comprehensive utilization of non-metallic mine tailings and ecological restoration of mining areas
- 136. Development and production of high-temperature resistant and corrosion-resistant filter materials

**(15) Nonferrous Metal Smelting and Rolling Processing Industry**

137. Production of high-tech non-ferrous metal materials and their products: high-temperature superconducting materials, shape memory alloy materials (titanium-nickel, copper-based, and iron-based shape memory alloys), ultrafine (nano) tungsten carbide and ultrafine (nano) crystalline cemented carbides, superhard composite materials, precious metal composite materials, light metal composite materials, Next-generation information technology industry, aerospace equipment, power generation equipment, advanced rail transit equipment, biopharmaceuticals and high-performance medical equipment, marine engineering equipment and high-tech vessels, energy-saving and new energy vehicles, high-end CNC machine tools and robots, agricultural machinery equipment, deep processing of high-performance light metal and copper alloy materials for energy conservation and environmental protection applications, foam aluminum, atomic-grade sponge zirconium, and deep-processed tungsten and molybdenum products

- 138. Processing of high-end rare earth application products meeting new material requirements
- 139. Production of high-performance aluminum-titanium-boron grain refiners

**(16) Metal Products Industry**

140. Research and manufacturing of lightweight and environmentally friendly new materials for aviation, aerospace, shipbuilding, automobiles, and motorcycles (special aluminum plates, aluminum-magnesium alloy materials, aluminum alloy motorcycle frames, etc.)

- 141. Metal packaging products for various foodstuffs, fruits and vegetables, beverages, daily chemical products, etc.

Manufacturing and processing of finished products (including internal and external wall printing and coating) with container wall thicknesses less than 0.3 mm

- 142. Manufacturing of steel fibers for construction

**(17) General Equipment Manufacturing**

143. Manufacturing of high-end CNC machine tools and key components: five-axis CNC machine tools, CNC coordinate boring and milling centers, CNC coordinate grinding machines

- 144. Large-scale (load capacity of 1 ton or more) multi-functional controlled atmosphere heat treatment equipment, programmable chemical heat treatment equipment  
Manufacturing of fully fiber-lined heat treatment furnaces

- 145. Manufacturing of end-of-life vehicle dismantling, crushing, and post-processing sorting equipment
- 146. FTL Flexible Production Line Manufacturing
- 147. Manufacturing of high-end precision tools, nano-composite coatings, and high-end processing equipment

148. Manufacturing of sub-micron ultra-fine grinding machines
149. Manufacturing of wheeled and crawler-type cranes with a capacity of 400 tons and above
150. Design and Manufacturing of High-Pressure Plunger Pumps and Motors (Working Pressure  $\geq 35\text{MPa}$ ), Low-Speed High-Torque Motors (Working Pressure  $\geq 35\text{MPa}$ )
151. Manufacturing of monoblock hydraulic manifolds with working pressure  $\geq 25\text{MPa}$  and electro-hydraulic proportional servo components
152. Design and manufacturing of valve islands, pneumatic solenoid valves with power  $\leq 0.35\text{W}$ , and high-frequency electrically controlled pneumatic valves operating at frequencies  $\geq 200\text{Hz}$
153. Production of valves for operating temperatures below  $-120^{\circ}\text{C}$  or above  $530^{\circ}\text{C}$
154. Design and manufacturing of hydrostatic drive units
155. Development and manufacturing of non-contact air film seals for pressures  $\geq 10\text{MPa}$  and dry gas seals for pressures  $\geq 10\text{MPa}$  (including experimental apparatus)
156. Design and manufacturing of pneumatic actuators with repeatability  $\leq 0.03$  degrees and axial runout  $\leq 0.02\text{mm}$
157. Manufacturing of noise and vibration pollution control equipment: sound barriers, mufflers, damping spring isolators
158. Development and manufacturing of automotive polymer materials (friction linings, modified phenolic pistons, non-metallic hydraulic master/slave cylinders, etc.)
159. Second-generation commercial vehicle hub bearings (THU2), third-generation and higher passenger car hub bearings, bearings for mid-to-high-end CNC machine tools and machining centers, bearings for high-speed wire and plate rolling mills, high-speed railway bearings, low-noise bearings with vibration values below Z4, P4 and P2 grade bearings for various types, Wind turbine bearings, aerospace bearings, aircraft engine bearings and other aviation bearings, medical CT scanner bearings, deep-well and ultra-deep-well oil drilling rig bearings, offshore engineering bearings, high-speed bearings for electric vehicle drive motor systems (rotational speed  $\geq 12,000$  rpm), industrial robot RV reducer and harmonic reducer bearings, shield machine bearings, machining CNC machine tools, large-bearing heat treatment equipment manufacturing
160. Gear transmissions for high-speed trains, marine variable pitch gear drive systems, manufacturing of large and heavy-duty gearboxes
161. Manufacturing of high-temperature resistant insulating materials (F and H insulation classes) and molded insulating components
162. Development and manufacturing of accumulator capsules and rubber/plastic seals for hydraulic and pneumatic applications
163. Manufacturing of high-precision, high-strength (Grade 12.9 and above), non-standard, and combination fasteners
164. Manufacturing of miniature precision transmission components (clutches)
165. Manufacturing of large rolling mill connecting shafts
166. Remanufacturing of machinery and equipment including machine tools, construction machinery, and railway locomotive equipment; remanufacturing of automotive components

Development and manufacturing of digital cameras with 16.71 million pixels or higher, or a horizontal field of view of 120 degrees or greater, along with their optical lenses and optoelectronic modules

168. Manufacturing of office machinery (including industrial applications): multifunction integrated office equipment (copying, printing, faxing, scanning), printing equipment, high-resolution color printer heads with 2400 dpi or higher precision, photoconductive drums

169. Manufacturing of film equipment: 2K and 4K digital cinema projectors, digital cinema cameras, digital image production and editing equipment

170. Construction and equipment manufacturing for port reception and disposal facilities for ship-generated pollutants; construction and equipment manufacturing for port emergency facilities for hazardous chemicals and oil products

171. Development, application, and manufacturing of industrial water-saving processes, technologies, and related equipment

#### **(18) Specialized Equipment Manufacturing**

172. Manufacturing of non-tracked mining equipment for extraction, loading, and transportation: 200-ton and above electric wheel mining dump trucks, mobile crushers, 5000 cubic meters per hour and above bucket wheel excavators, 8 cubic meters and above mining loaders, 2500 kilowatts and above electric traction coal mining equipment, etc.

173. Geophysical Exploration (excluding gravity and magnetic surveys) and Logging Equipment Manufacturing: MEME seismic sensors, digital telemetry seismometers, digital imaging and CNC logging systems, horizontal well, directional well, and drilling rig equipment and tools, MWD logging-while-drilling instruments

174. Manufacturing of petroleum exploration, drilling, and gathering/production equipment: Floating drilling systems and floating production systems with operating water depths exceeding 1,500 meters, along with 配套subsea oil production and gathering/production equipment

175. Large-diameter rotary drilling rigs with a diameter of 2 meters or more and a depth of 30 meters or more, pipe jacking machines with a diameter of 1.2 meters or more, and

Large-scale trenchless underground pipeline laying equipment with a pulling force exceeding 300 tons, and underground continuous wall construction drilling rig manufacturing

176. Design and manufacturing of large bulldozers rated at 520 horsepower and above

177. Design and manufacture of dredgers with specifications of 100 cubic meters per hour and above, and dredging equipment for dredgers of 1,000 tons and above

178. Design and manufacture of concrete impermeable wall construction equipment for flood control embankments

179. Manufacturing of seismic mitigation devices for civil engineering structures

180. Manufacturing of underwater earthmoving machinery: bulldozers, loaders, excavators, etc., for water depths below 9 meters

181. Manufacturing of highway bridge maintenance and automated inspection equipment

182. Manufacturing of equipment for highway tunnel operation monitoring, ventilation, disaster prevention, and rescue systems

183. Design and manufacturing of large-scale railway construction machinery, railway line, bridge, and tunnel maintenance equipment, inspection and monitoring devices, and

Design and manufacturing of key components

184. Manufacturing of mineral processing equipment for multi-element, fine-grained, and difficult-to-process metal ores
185. Manufacturing of key equipment for ethylene plants with an annual capacity of 1 million tons or more: Mixed granulators with an annual processing capacity of 400,000 tons or more, screw discharge centrifuges with a diameter of 1000 mm or more, and small-flow high-lift centrifugal pumps
186. Design and manufacture of metal product molds (extrusion dies for copper, aluminum, titanium, and zirconium tubes, rods, and profiles)
187. Design and manufacturing of automotive body outer panel stamping dies, large injection molds for dashboard panels and bumpers, and fixtures/gauges for automobiles and motorcycles
188. Design and manufacturing of specialized production equipment for automotive power batteries
189. Design and manufacturing of precision molds (stamping molds with precision exceeding 0.02 mm, cavity molds with precision exceeding 0.05 mm)
190. Manufacturing of beer filling equipment at 60,000 bottles per hour and above, beverage filling equipment at 50,000 bottles per hour and above for mesophilic and thermophilic processes, and aseptic filling equipment at 36,000 bottles per hour and above
191. Production technology and key equipment manufacturing for amino acids, enzyme preparations, food additives, etc.
192. Manufacturing of complete feed processing equipment and key components with a capacity of 10 tons per hour or higher
193. Manufacturing of equipment for lightweight corrugated cardboard and cartons with flute height  $\leq 0.75$  mm
194. Manufacturing of sheet-fed multicolor offset printing presses (web width  $\geq 750$  mm, printing speed: single-sided multicolor  $\geq 16,000$  sheets/hour, double-sided multicolor  $\geq 13,000$  sheets/hour)
195. Manufacturing of single-web single-paper-path web offset printing presses with printing speeds exceeding 75,000 double-page sheets per hour (787 $\times$ 880 mm), double-width single-paper-path web offset printing presses with printing speeds exceeding 170,000 double-page sheets/hour (787 $\times$ 880 mm), and commercial web offset printing presses with printing speeds exceeding 50,000 double-page sheets/hour (787 $\times$ 880 mm)
196. Multi-color wide-format flexographic printing presses (printing width  $\geq 1300$  mm, printing speed  $\geq 350$  m/s), inkjet digital printing presses (for publishing: printing speed  $\geq 150$  m/min, resolution  $\geq 600$  dpi; for packaging: printing speed  $\geq 30$  m/min, resolution  $\geq 1000$  dpi; for variable data: printing speed  $\geq 100$  m/min, resolution  $\geq 300$  dpi) manufacturing
197. Computer ink color presetting, ink color remote control, ink speed tracking, automatic print quality detection and tracking systems, shaftless drive technology, high-speed automatic paper splicers with speeds up to 75,000 sheets/hour, feeders, and high-speed folders with automatic remote adjustment, automatic registration systems, cooling devices, siliconizing systems, and misregistration correction devices
198. Manufacturing of automatic electron beam coating machines

199. Flat glass deep processing technology and equipment manufacturing
200. Manufacturing of complete sets of equipment for new paper-making machinery (including pulp)
201. Manufacturing of new leather finishing technology equipment
202. Manufacturing of soil pollution remediation and restoration equipment
203. Development and Manufacturing of New Equipment for Agricultural Product Processing and Storage: New equipment for processing, storage, preservation, grading, packaging, and drying of products such as grains, oilseeds, vegetables, dried/fresh fruits, meat products, and aquatic products; agricultural product quality testing instruments and equipment; non-destructive agricultural product quality testing instruments and equipment; rheometers; starch testers; ultra-fine grinding equipment, high-efficiency dehydration equipment, high-efficiency juice concentrators with five or more effects, sterilization equipment for powdered food materials, aseptic packaging equipment for solid and semi-solid foods, disc-type centrifugal separators
204. Agricultural Machinery Manufacturing: Agricultural facilities and equipment (automated greenhouse irrigation systems, automated nutrient solution preparation and fertilization equipment, high-efficiency vegetable seedling cultivation equipment, soil nutrient analyzers), tractors with engine power of 200 kW or above and matching implements, low-fuel-consumption, low-noise, low-emission diesel engines, sprayers with residual mist particle recovery devices for large tractors, high-performance rice transplanters, Cotton pickers and cotton harvesting platforms, self-propelled corn combines (hydraulic or mechanical drive) adaptable to multiple row spacings, peanut harvesters, rapeseed harvesters, sugarcane harvesters, beet harvesters, self-propelled grape harvesters
205. Forestry Facility Equipment Manufacturing: Smart greenhouses for seedlings and flowers, precision irrigation, fertilization, and seedling cultivation equipment; analytical instruments for seedling stem diameter, leaf/root system runoff, seed viability, and soil nutrients; high-power (240KW) forestry chassis and matching implements; small-to-medium-sized multi-functional machines for land preparation, tree planting, tending, harvesting, and timber collection; Mechanisms for afforestation in challenging sites, equipment for collecting, baling, chipping, shredding, and comprehensive utilization of forest residues, large- and medium-sized plant protection and pesticide sprayers, small precision application equipment or bionic spraying robots, forest cone harvesters and oilseed fruit harvesters, large- and medium-sized tree transplanters, shrub mulching equipment, high-efficiency pruning devices, rapid forest stock measurement equipment
206. Wood processing equipment manufacturing: Rapid color difference identification technology equipment, rapid solid wood panel measuring equipment, rapid quick knot detection equipment, solid wood surface defect detection equipment, complete sawmill equipment technology, quick surface defect detection equipment for engineered wood panels, online quality grading equipment, online quality inspection equipment for rotary-cut veneer, dust treatment equipment for solid wood furniture paint film sanding, quick sorting equipment for panel furniture components, intelligent warehouses for furniture manufacturing
207. Forest Disaster Monitoring Equipment Manufacturing: Rapid rescue equipment for forest areas, high-precision navigation and positioning devices, drone-based fire and disaster monitoring/early warning systems, firefighting and pest control equipment
208. Manufacturing of crop straw collection, baling, and comprehensive utilization equipment
209. Manufacturing of equipment for resource utilization of agricultural waste and large-scale livestock/poultry waste

210. Advanced intelligent manufacturing processing equipment for leather, fur, and related products
211. Fertilizer-saving, pesticide-saving, and water-saving agricultural technology equipment manufacturing
212. Manufacturing of Electromechanical Well Cleaning Equipment and Cleaning Chemical Production Equipment
213. Electronic Endoscope Manufacturing
214. Fundus Camera Manufacturing
215. Medical imaging equipment (high-field superconducting MRI systems, X-ray computed tomography systems, digital color ultrasound diagnostic equipment, etc.), intelligent medical imaging diagnostic assistance systems, and key component manufacturing
216. Medical Ultrasound Transducers (3D) Manufacturing
217. Boron Neutron Capture Therapy Equipment Manufacturing
218. Image-guided conformal intensity-modulated radiation therapy system manufacturing
219. Manufacturing of hemodialysis machines and hemofiltration machines
220. Manufacturing of fully automated biochemical monitoring equipment, five-class blood cell analyzers, fully automated chemiluminescent immunoassay analyzers, high-throughput gene sequencing systems, and molecular diagnostic equipment
221. Manufacturing of New Technologies and Equipment for Pharmaceutical Quality Control
222. Development and Manufacturing of New Technologies for Analyzing Active Ingredients in Natural Medicines, New Extraction Processes, and New Equipment
223. Research, development, and manufacturing of production equipment for biomedical consumables
224. Manufacturing of multi-layer co-extruded water-cooled film blowing equipment for non-PVC medical infusion bags
225. Manufacturing of AI-assisted medical devices
226. Manufacturing of high-end radiotherapy equipment
227. Manufacturing of high-end surgical instruments, physical therapy and rehabilitation equipment, and wearable smart health devices
228. Manufacturing of critical care life support equipment
229. Manufacturing of Mobile and Telemedicine Diagnostic Equipment
230. Ventilators, ECMO, monitors, and PCR instrument manufacturing
231. Development and production of minimally invasive surgical medical devices: 3D imaging systems, electron microscopy systems, surgical robots, robotic arms, hearing aids, and cochlear implants
232. Research and production of holmium laser and carbon dioxide laser therapy products
233. Development and application of advanced implantable interventional devices and materials (e.g., novel stents, prostheses) and additive manufacturing technologies
234. Emergency rescue equipment manufacturing

235. Development and manufacturing of new textile machinery, key components, and textile testing/experimental instruments

236. Manufacturing of computer-controlled jacquard artificial fur machines
237. Manufacturing of specialized equipment for high-tech solar cell production
238. Manufacturing of Carbon Capture, Utilization, and Storage (CCUS) Equipment and Greenhouse Gas Monitoring and Measurement Equipment
239. Atmospheric Pollution Control Equipment Manufacturing: Low NO<sub>x</sub> combustion devices, flue gas denitrification catalysts and complete denitrification systems, industrial organic waste gas purification equipment, diesel vehicle exhaust purification devices, heavy metal-containing waste gas treatment equipment
240. Water pollution control equipment manufacturing: Horizontal screw centrifugal dewatering machines, membranes and membrane materials, ozone generators exceeding 50kg/h, chlorine dioxide generators exceeding 10kg/h, UV disinfection units, small-scale domestic sewage treatment equipment for rural areas, heavy metal-containing wastewater treatment units
241. Solid Waste Treatment and Disposal Equipment Manufacturing: Sludge disposal and resource utilization equipment for sewage treatment plants, landfill leachate treatment technology equipment, construction waste processing and resource recovery equipment, hazardous waste treatment units, landfill biogas generation and power generation units, scrap iron processing equipment, centralized medical waste treatment facilities
242. Development and manufacturing of comprehensive utilization equipment for red mud in the aluminum industry
243. Manufacturing of tailings comprehensive utilization equipment
244. Manufacturing of recycling and reprocessing equipment for waste plastics, electrical appliances, rubber, and batteries
245. Manufacturing of waste textile recycling and processing equipment
246. Manufacturing of remanufacturing equipment for waste electromechanical products
247. Manufacturing of Equipment for Utilizing Waste Heat, Pressure, and Gas
248. Manufacturing of Environmental Protection Technologies and Equipment for Aquatic Ecosystems
249. Manufacturing of mobile modular water purification equipment
250. Manufacturing of Non-Conventional Water Treatment, Reuse Equipment, and Water Quality Monitoring Instruments
251. Manufacturing of leak detection equipment and instruments for industrial water pipelines and equipment (appliances)
252. Development and Manufacturing of Seawater Desalination and Recirculating Cooling Technologies and Complete Equipment Sets with Daily Capacity of 100,000 Cubic Meters or More
253. Manufacturing of water-saving industrial equipment for high-water-consumption industries such as steel, paper, textiles, petrochemicals, chemicals, and metallurgy
254. Manufacturing of specialized meteorological observation and analysis equipment
255. Development of seismic station, network, and mobile seismic observation technology systems and manufacturing of related instruments and equipment

256. Manufacturing of rolling resistance testers and tire noise testing chambers
257. Manufacturing of new technology equipment for heat metering and temperature control devices
258. Manufacturing of hydrogen production, storage, transportation equipment, and inspection systems
259. Manufacturing of novel heavy residue oil gasification atomizing nozzles, high-efficiency steam traps with leakage rates of 0.5% or lower, and high-temperature ceramic heat exchangers capable of operating at 1000°C and above

Manufacturing of high-temperature ceramic heat exchangers

260. Manufacturing of offshore oil spill recovery systems
261. Manufacturing of Equipment for Utilizing Low-Concentration Coal Mine Methane and Exhaust Air
262. Development, Utilization, and Equipment Manufacturing of Clean Coal Technology Products (Coal Gasification, Liquefaction)
263. Firefighting and rescue technology development and equipment manufacturing for large public buildings, high-rise structures, petrochemical facilities, forests, mountains, water bodies, and underground installations
264. Manufacturing of intelligent emergency medical rescue equipment
265. Manufacturing of hydrological monitoring sensors
266. Design, R&D, and manufacturing of nuclear reactor main process equipment
267. Development and production of diamond-bonded composite bits (PDC drill bits)
268. Development and production of online analysis technology and equipment for sand and gravel particle shape and gradation
269. Precision Electronic Mold Development and Production
270. Development and production of dental implant systems for bone-deficient patients
271. Research, development, and production of specialized equipment for ski resorts, including heavy-duty and light-duty snow/ice machinery, passenger ropeways, snowmaking machines, and snow groomers
272. Manufacturing of polymeric wound dressings including closed negative pressure wound therapy (NPWT) materials, bacterial cellulose membranes, and polyurethane foam dressings
273. Construction of production lines for five-layer and above co-extruded unidirectional and bidirectional stretched films, and barrier coating production lines

**(19) Automotive Manufacturing**

274. Automotive engine manufacturing and establishment of engine R&D institutions: gasoline engines with specific power output of no less than 70 kilowatts

Diesel engines with displacement below 3 liters and specific power output no less than 50 kilowatts per liter,

New energy engines such as fuel cells and hybrid fuels

275. Manufacturing of Key Automotive Components and R&D of Core Technologies: Dual-Clutch Transmission (DCT), Continuously Variable Transmission (CVT), Automated Manual Transmission (AMT), Gasoline Engine Turbochargers, Viscous Couplings (for 4WD), automatic transmission actuators (solenoids), hydraulic retarders, eddy current retarders, gas generators for automotive airbags, common rail fuel injection technology (maximum injection pressure exceeding 2000 Pa), Variable Geometry Turbocharger (VGT) technology, Variable Nozzle Turbocharger (VNT) technology, Engine emission control devices meeting China Stage VI pollutant emission standards, Intelligent Torque Management (ITM) and coupler assemblies, Drive-by-Wire steering systems, Particulate traps, Low-floor bus-specific axles, Energy-absorbing steering systems, Low-

sweep disc brake assemblies, aluminum steering knuckles, variable frequency air conditioning systems for large and medium-sized buses, automotive specialty rubber components, and critical parts/components for the aforementioned assemblies

276. Automotive Electronics R&D and Manufacturing: Engine and chassis electronic control systems and critical components; input (sensors and sampling systems) and output (actuators) components for electronic control systems; electronic controllers for electric power steering systems; embedded electronic integrated systems; electronically controlled air springs; electronic control suspension systems; electronic valve systems; electronic instrument clusters; ABS/TCS/ESP systems, Brake Bypass Control (BBW), Transmission Control Units (TCU), Tire Pressure Monitoring Systems (TPMS), On-Board Diagnostics (OBD), Engine Anti-Theft Systems, Automatic Collision Avoidance Systems, Testing and Maintenance Systems for Automotive and Motorcycle Models, Autonomous Driving Systems, In-Vehicle Electronic Operating Systems, In-Vehicle Electronic Operating System Application Development (APP), Head-Up Display Technology, Vehicle Evasive Steering Assist System, Forward Collision Warning (FCW), Automatic Brake Control (ABC) Automatic Emergency Braking (AEB), Electronic Parking Brake (EPB), Brake-by-Wire System, Adaptive Cruise Control (ACC), Forward View Camera System, Wheel Speed Sensor

277. R&D and manufacturing of key components for new energy vehicles: energy-type power battery cells;

battery cathode materials

(specific capacity  $\geq 180\text{mAh/g}$ , 80%+ initial discharge capacity after 2000 cycles) and precursor materials, battery anode materials (specific capacity  $\geq 500\text{mAh/g}$ , 80%+ initial discharge capacity after 2000 cycles), battery separators (thickness  $\leq 12\mu\text{m}$ , porosity 35%-60%); Battery management systems, motor controllers, electric vehicle electronic control integration; electric vehicle drive motor systems (high-efficiency zone: 85% operating range efficiency  $\geq 80\%$ ), automotive DC/DC converters.

(Input voltage 100V-400V), high-power electronic devices (IGBT, voltage rating  $\geq 750\text{V}$ , current  $\geq 300\text{A}$ ) plug-in hybrid electromechanical coupling drive system; fuel cell engine (mass power density  $\geq 350\text{W/kg}$ ), fuel cell stack (volume power density  $\geq 3\text{kW/L}$ ), membrane electrode assembly (platinum loading  $\leq 0.3\text{g/kW}$ ), proton exchange membranes (proton conductivity  $\geq 0.08\text{S/cm}$ ), low-platinum catalysts, carbon paper (resistivity  $\leq 3\text{m}\Omega\text{-cm}$ ), air compressors, hydrogen recirculation pumps, hydrogen ejectors, humidifiers, fuel cell control systems, boost DC/DC converters, 70MPa hydrogen cylinders, onboard hydrogen concentration sensors; Electric vehicle heat pump air conditioning; Dedicated 32-bit or higher chips for motor drive control (no fewer than 2 hardware cores, clock speed  $\geq 180\text{MHz}$ , featuring hardware encryption capabilities, chip design compliant with ASIL C or higher functional safety requirements); Integrated electric drive assembly (power density  $\geq 2.5\text{kW/kg}$ ); High-speed reducer (maximum input speed  $\geq 12000\text{rpm}$ , noise level below 75dB); thermal management and control systems (electric compressors, refrigerant combination valves, electronic water pumps, high-efficiency silent electronic cooling fans, high-efficiency blowers, integrated modules for new energy vehicles, etc.); Lithium battery aluminum-plastic film (thickness  $152\mu\text{m}\pm 10\%$ , outer layer peel strength  $\geq 6.5\text{N/15mm}$ , inner layer peel strength  $\geq 10\text{N/15mm}$ , inner layer electrolyte peel resistance  $\geq 9.0\text{N/15mm}$ , formability  $\geq 5\text{mm}$ )

278. On-board chargers (efficiency  $\geq 95\%$  at full load output), bidirectional on-board chargers, off-board charging equipment (output voltage 250V~950V, efficiency  $\geq 88\%$  across voltage range), and development/manufacturing of high-power-density, high-conversion-efficiency, versatile wireless charging and mobile charging technologies

279. Research and manufacturing of key components for intelligent vehicles: sensors, in-vehicle chips, central processors, in-vehicle operating systems and information control systems, vehicle-to-network communication equipment, visual recognition systems, and steer-by-wire chassis systems; novel intelligent terminal modules, multi-core heterogeneous intelligent computing platform technology, sensor fusion perception technology, key automotive wireless communication technologies, and foundational cloud control platform technology; New security isolation architecture technology, hardware/software coordinated attack detection technology, terminal chip security encryption and application software security protection technology, wireless communication security encryption technology, secure communication and authentication authorization technology, data encryption technology; R&D of test evaluation system architecture, virtual simulation, real-vehicle road testing technologies and verification tools, vehicle-level and system-level test evaluation methods, construction of test foundation databases

280. Manufacturing of hardware and critical components related to L3/L4/L5 autonomous driving: LiDAR, millimeter-wave radar, intelligent cameras

281. Manufacturing of charging piles and energy storage charging piles; development and manufacturing of integrated energy-saving facilities or solutions combining charging and energy storage

#### **(20) Railway, Shipbuilding, Aerospace, and Other Transportation Equipment Manufacturing**

282. Manufacturing of emission control devices for large-displacement (displacement  $> 250\text{ml}$ ) motorcycle engines meeting China's Stage IV motorcycle emission standards

283. Design, manufacturing, and maintenance of civil aircraft: mainline, regional, and general aviation aircraft

284. Manufacturing and maintenance of civil aircraft components

285. Design and manufacturing of civil helicopters

286. Manufacturing of civil helicopter components

287. Manufacturing of ground and surface effect vehicles, and design and manufacturing of unmanned aerial vehicles (UAVs) and airships

288. Design, manufacturing, and maintenance of aeroengines and components, and auxiliary power units

289. Development and production of new materials for aerospace applications

290. Design and Manufacturing of Civil Aviation Airborne Equipment

291. Manufacturing of aviation ground equipment: civil airport facilities, civil airport security facilities, flight test ground equipment, flight simulation and training equipment, aviation testing and measurement equipment, aviation ground test equipment, integrated aircraft equipment testing equipment, specialized aviation manufacturing equipment, specialized aviation material prototyping equipment, civil aircraft ground reception and application equipment, launch vehicle ground test equipment, launch vehicle mechanical and environmental test equipment, towless aircraft towing equipment, cargo loading equipment, aircraft de-icing equipment

Aircraft Towing Equipment, Container Loaders, Aircraft Deicing Equipment

292. Civil satellite design and manufacturing, civil satellite payload manufacturing
293. Manufacturing of civil satellite components
294. Manufacturing of in-orbit product testing equipment
295. Design and R&D of large/medium-sized cruise ships and small cruise ships; specialized supporting R&D and manufacturing of cruise ship interior decoration, digital audio-visual systems, and information systems
296. Design and R&D of new marine engineering equipment including deep-sea aquaculture platforms, large aquaculture workboats, and deep-sea mineral resource development equipment
297. Design and R&D of clean and new energy propulsion systems for ships, including LNG dual-fuel, pure battery, hydrogen fuel cell, methanol fuel, ammonia fuel, and biomass fuel propulsion
298. Design and R&D of marine deck machinery and cabin equipment
299. Design and development of shipboard communication and navigation systems
300. Design and R&D of yachts and specialized supporting equipment
301. Overall design of intelligent systems for smart ships, and design and development of intelligent perception systems, intelligent navigation systems, and intelligent energy management systems
302. Design and development of offshore oil and gas equipment including deepwater drilling platforms (ships), floating liquefied natural gas units (FLNG), and floating storage and regasification units (FSRU)
303. Design and R&D of offshore wind power equipment and marine renewable energy equipment (including tidal, wave, and ocean thermal energy conversion)
304. Design and R&D of specialized systems including single-point mooring systems, liquid cargo containment systems, and subsea production systems
305. Design and development of green and intelligent equipment including ship final assembly precision management control, digital shipbuilding, pre-outfitting and modularization, high-efficiency welding, green coating, ultra-high-pressure water rust removal, intelligent welding production lines, intelligent section assembly lines, and intelligent pipe processing production lines

**(XXI) Electrical Machinery and Equipment Manufacturing**

306. Manufacturing of key auxiliary equipment for 1-million-kilowatt ultra-supercritical thermal power units: safety valves, control valves
307. Design and manufacturing of sealing components for thermal power equipment
308. Manufacturing of Key Auxiliary Equipment for Hydropower Units
309. Manufacturing of Power Transmission and Transformation Equipment and Key Components
310. Manufacturing of complete sets or key equipment for new energy power generation: photovoltaic power generation, solar thermal power generation, geothermal power generation,

tidal power generation, wave power generation, waste-to-energy, biogas production and power generation; Large-scale heterojunction substrate material manufacturing

311. Manufacturing of Stirling engine power generation units

312. Development and manufacturing of linear and planar motors and their drive systems

313. Manufacturing of high-tech green batteries: power nickel-metal hydride batteries, zinc-nickel batteries, sodium salt batteries, zinc-silver batteries, lithium-ion batteries, solar cells, fuel cells, etc.

314. Manufacturing of refrigeration and air conditioning compressors utilizing DC speed control technology for electric motors, CO<sub>2</sub> natural refrigerant compressors, and renewable energy (air-source, water-source, ground-source) refrigeration and air conditioning equipment

315. Manufacturing of solar air conditioning, heating systems, and solar drying equipment

316. Manufacturing of biomass drying pyrolysis systems and biomass gasification units

317. Manufacturing of biogas feedstock pretreatment and feeding systems, fermentation units, purification equipment, and digested slurry treatment systems

318. Manufacturing of AC frequency and voltage-regulated traction equipment

319. Manufacturing of high-voltage vacuum components and switchgear, intelligent medium-voltage switch components and complete sets of equipment, environmentally friendly medium-voltage gas-insulated switchgear, intelligent (communicable) low-voltage electrical appliances, and energy-saving distribution transformers using amorphous alloys, laminated cores, etc.

## **(22) Computer, Communication, and Other Electronic Equipment Manufacturing**

320. Manufacturing of high-definition digital video cameras and digital audio playback equipment

321. Manufacturing of flat panel displays and display materials including TFT-LCD, OLED, AMOLED, laser display, quantum dot, and 3D display (excluding 6th generation and below TFT-LCD glass substrates)

322. Research and development, manufacturing of polarizer base films and diffusion films

323. Research and development, manufacturing of e-book materials (e.g., electronic ink displays)

324. Manufacturing of silicon single crystals with a diameter of 8 inches or larger

325. Manufacturing of silicon wafers with a diameter of 12 inches or larger

326. Manufacturing of key components for large-screen color projection displays, including optical engines, light sources, projection screens, high-definition projection tubes, and micro-display projection device modules

327. Laser projection equipment manufacturing

328. Manufacturing of ultra-high-definition and high-tech video products: 4K/8K ultra-high-definition televisions, 4K cameras, monitors, and end-to-end critical software/hardware for interactive video, immersive video, VR video, cloud gaming, and other high-tech video applications

329. Digital audio and video encoding/decoding equipment, digital broadcasting studio equipment, digital cable television system equipment, digital audio broadcasting transmission equipment, digital television up/down converters, digital terrestrial television single-frequency network (SFN) equipment, and satellite digital television uplink station equipment manufacturing

(SFN) equipment, satellite digital TV uplink station equipment manufacturing

330. Integrated circuit design; large-scale digital IC manufacturing at 28nm and below; analog and mixed-signal IC manufacturing at 0.11 $\mu$ m and below; photomask production; MEMS and compound semiconductor IC manufacturing; advanced packaging and testing including BGA, PGA, CSP, MCM, LGA, SIP, FC, and WLP

331. Manufacturing of large and medium-sized electronic computers, petaflop-class high-performance computers, portable microcomputers, large-scale simulation systems, industrial control computers, and controllers

332. Research and development, manufacturing of quantum, brain-inspired, and other novel mechanism computing systems

333. Development and manufacturing of key equipment for ultra-large-scale integrated circuit production

334. Manufacturing of integrated circuit packaging and testing equipment

335. Manufacturing of computer digital signal processing systems and boards

336. Manufacturing of graphic and image recognition and processing systems

337. Development and manufacturing of high-capacity optical and magnetic disk drives and their components

338. Manufacturing of 100TB and above storage systems, 8TB and above SSD solid-state drives, and intelligent storage devices

339. Computer-Aided Design (3D CAD), Electronic Design Automation (EDA), Computer-Aided Testing (CAT) Computer-Aided Manufacturing (CAM), Computer-Aided Engineering (CAE) Systems, and Other Computer Application Systems Manufacturing

340. Software product development and production

341. Development and manufacturing of specialized electronic materials (excluding optical fiber preform development and manufacturing); Development and manufacturing of surface mount technology

Lead-free solder paste for surface mount technology (SMT), development and manufacturing of high-purity (electronic-grade) polysilicon materials

342. Manufacturing of electronic specialized equipment, testing instruments, and tooling

343. Manufacturing of new electronic components: chip components, sensitive components and sensors, frequency control and selection components, hybrid integrated circuits, power electronic devices, optoelectronic devices, new electromechanical components, polymer solid capacitors, supercapacitors, passive integrated components, high-density interconnect laminated boards, single-layer, double-layer, and multi-layer flexible boards, rigid-flex printed circuit boards and packaging substrates, high-density fine-line (line width/spacing  $\leq 0.05$ mm) Flexible circuit boards, etc.

344. Manufacturing and assembly of touch systems (touch screens, touch components, etc.)

345. Virtual Reality (VR), Augmented Reality (AR), Mixed Reality (MR) device R&D and manufacturing

346. Manufacturing of high-brightness light-emitting diodes with luminous efficacy  $\geq 140$  lm/W, light-emitting diode epitaxial wafers (blue light) with luminous efficacy  $\geq 140$  lm/W, and white light-emitting diodes with luminous efficacy  $\geq 140$  lm/W and power  $\geq 200$  mW

- 347. Development and production of key components for high-density digital optical disc drives
  - 348. Production of recordable optical discs
  - 349. Research, development, and manufacturing of 3D printing equipment and its key components
  - 350. Manufacturing of satellite communication system equipment
  - 351. Manufacturing of optical communication measurement instruments and optical transceivers with data rates of 40Gbps and above
  - 352. Manufacturing of Ultra-Wideband (UWB) Communication Equipment
  - 353. Manufacturing of wireless local area network (including WAPI-enabled) and wide area network equipment
  - 354. Manufacturing of 100Gbps and above Time Division Multiplexing (TDM) equipment, Dense Wavelength Division Multiplexing (DWDM) equipment, broadband passive network equipment (including EPON, GPON, WDM-PON, etc.), next-generation DSL chips and equipment, Optical Cross-Connect (OXC) equipment, Automatic Optical Switching Network (ASON) equipment, and 40Gbps and above SDH fiber optic communication transmission equipment
  - 355. Development and manufacturing of IPv6-based next-generation internet system equipment, terminal devices, testing equipment, software, and chips
  - 356. Development and manufacturing of fourth-generation, fifth-generation, and subsequent mobile communication system handsets, base stations, core network equipment, optical transmission equipment, and network testing equipment
  - 357. Development and manufacturing of visual sensors (digital cameras, digital camcorders, 3D sensors, lidar, millimeter-wave radar, etc.) and their core components (optical lenses, lasers, image sensors, motors, optoelectronic modules, etc.) for fifth-generation mobile terminals (smartphones, vehicles, drones, virtual reality and augmented reality displays, etc.), as well as IoT terminals
  - 358. Cloud computing equipment (including servers, storage devices, cloud service equipment, and high-precision mechanical components), software, and system development
  - 359. High-end routers with overall processing capacity exceeding 6.4 Tbps (bidirectional), switches with exchange capacity exceeding 40 Tbps
- Development and manufacturing of switches with switching capacity exceeding 40 Tbps
- 360. Manufacturing of air traffic control system equipment
  - 361. Development and manufacturing of electronic teaching aids for traditional Chinese medicine based on computer information technologies such as sound, light, electricity, and touch control, as well as virtual pathology and physiology mannequin equipment
  - 362. Manufacturing of smart consumer devices such as wearable smart devices and intelligent unmanned aerial vehicles
  - 363. Smart home platform systems and equipment manufacturing
  - 364. Development and production of electronic-grade glass fiber cloth for copper-clad laminates

365. Development and research of critical software and data interoperability technologies for different device interfaces

366. Wafer manufacturing and recycling

367. Research, development, and manufacturing of smart health and elderly care products (including elderly care products and assistive devices, elderly medical equipment and rehabilitation aids, smart wearable devices for seniors, etc.)

368. Production of organic polymer materials: lithium-ion battery separators; Production of high-tech non-ferrous metal materials and related products: compound semiconductor materials (gallium arsenide, gallium phosphide, indium phosphide, gallium nitride)

369. Development and production of high-purity electronic chemicals and high-performance photoresists

370. Development and production of new functional glass technologies: Electromagnetic wave shielding glass, glass substrates for microelectronics, large-format electronic-grade quartz glass products (tubes, plates, crucibles, laboratory vessels, etc.), 10.5-generation and above TFT-LCD substrate glass, high-performance lithium-aluminum-silicon glass, OLED glass, touch glass, flexible glass, and other electronic information display glass; Extreme materials and products for information technology(including waveguide-grade high-precision optical fiber preform quartz glass sleeves and ceramic substrates)

371. Sapphire substrate R&D and production

#### **(23) Instrument and Meter Manufacturing**

372. Manufacturing of soil moisture monitoring equipment

373. Manufacturing of Industrial Process Automation Control Systems and Equipment: Fieldbus control systems, large programmable logic controllers (PLCs), two-phase flow meters, solid flow meters, new sensors, and field measurement instruments

374. Manufacturing of automated, intelligent, and multifunctional materials testing instruments for mechanical properties, as well as non-destructive testing equipment including industrial CT scanners and 3D ultrasonic flaw detectors

375. Development and manufacturing of large precision instruments and high-resolution microscopes (resolution below 200 nm)

376. Manufacturing of high-precision digital voltmeters and ammeters (display range exceeding seven and a half digits)

377. Manufacturing of automatic reactive power compensation devices

378. Manufacturing of new instruments and equipment for workplace safety

Manufacturing of 379.VXI bus-based automatic test systems (compliant with IEEE1155 international standard)

380. Development and manufacturing of underground coal mine monitoring and disaster prediction systems, integrated coal safety detection management systems

381. Manufacturing of engineering surveying and geophysical observation equipment

382. Manufacturing of Environmental Monitoring Instruments

383. Manufacturing of Wireless Remote-Read Smart Water Meters

384. Manufacturing of Intelligent Monitoring Instruments for Reservoir Dam Safety

- 385. Manufacturing of hydrological data acquisition, processing, transmission, and flood warning instruments and equipment
- 386. Manufacturing of marine exploration and monitoring instruments and equipment
- 387. Manufacturing of Municipal Pipeline and Water Transmission Pipeline Leak Detection Instruments
- 388. Nuclear Instrumentation R&D and Manufacturing
- 389. Development and Production of Glow Discharge Mass Spectrometers
- 390. Development and production of transmission electron microscopes

**(24) Comprehensive Utilization of Waste Resources**

- 391. Comprehensive utilization of coal washing and beneficiation byproducts (including desulfurization gypsum), coal gangue, etc.
- 392. Production of fully biodegradable materials
- 393. Recycling and processing of waste electrical and electronic products, automobiles, electromechanical equipment, rubber, metals, and batteries
- 394. Comprehensive utilization of red mud and other smelting residues
- 395. Recycling and processing of decommissioned wind turbine blades and discarded photovoltaic modules
- 396. Comprehensive utilization of Yellow River sediment

**IV. Electricity, Heat, Gas, and Water Production and Supply**

- 397. Construction and operation of supporting and regulating power sources utilizing ultra-supercritical units with a single unit capacity of 600 MW or above
- 398. Construction and operation of back-pressure cogeneration, combined heat, power, and cooling plants, and ultra-supercritical cogeneration units of 300 MW or above
- 399. Construction and operation of clean coal power generation projects with single units of 300 MW or above, utilizing circulating fluidized bed, pressurized fluidized bed, integrated coal gasification combined cycle power generation, and other technologies, as well as power generation projects utilizing low-calorific coal such as coal gangue, middlings, and coal slurry
- 400. Construction and operation of large-scale hydropower stations and pumped storage power stations primarily for electricity generation
- 401. Construction and operation of nuclear power plants
- 402. Construction and operation of new energy power plants (including solar, wind, geothermal, tidal, tidal stream, wave, and biomass energy)
- 403. Construction and operation of natural gas peak-shaving power plants and distributed energy stations in regions with secured gas supplies
- 404. Development and application of complementary systems integrating gas-fired power generation with renewable energy generation

405. Construction and operation of waste-to-energy power plants

406. Construction and operation of clean energy microgrids

- 407. Construction and operation of regional energy supply (cooling/heating) projects powered by natural gas, electricity, and renewable energy
- 408. Seawater utilization (direct seawater use, desalination), brackish water utilization
- 409. Consulting, design, investment, construction, and operation of water supply plants
- 410. Consulting, design, investment, construction, and operation of reclaimed water plants
- 411. Consulting, design, investment, construction, and operation of wastewater treatment plants; consulting, design, investment, construction, and operation of sludge treatment and disposal facilities
- 412. Construction and operation of electric vehicle charging stations and battery swap stations
- 413. Hydrogen refueling station construction and operation
- 414. Construction and operation of biogas projects
- 415. Research, development, application, and production of green plant-based insulating oil
- 416. Research, development, manufacturing, construction, and operation of new energy storage equipment (including lithium-ion batteries, flow batteries, compressed air, flywheels, hydrogen storage, and other energy storage technologies)
- 417. Construction of integrated power generation, transmission, consumption, and storage systems and multi-energy complementary power sources

## V. Transportation, Warehousing, and Postal Services

- 418. Construction and operation of mainline railway networks and dedicated railway lines
- 419. Construction and operation of intercity railways, suburban railways, resource-oriented development railways, branch railways, and their bridges, tunnels, and station facilities; construction of ferry services
- 420. Comprehensive maintenance of high-speed rail and intercity rail infrastructure
- 421. Construction and operation of highways, independent bridges, and tunnels
- 422. Highway freight transportation companies
- 423. Construction and operation of public port terminal facilities
- 424. Construction and operation of civil airports (excluding air traffic control)
- 425. Public air transportation companies
- 426. Agricultural, forestry, and fishery general aviation companies
- 427. International maritime transport companies
- 428. International maritime passenger transport services for cruise ships
- 429. Construction of international container multimodal transport transfer facilities and rapid transshipment equipment, standardized transport units

## Research, Development, Promotion, and Application

- 430. International Ship Management Organizations and Crew Dispatch Agencies
- 431. Construction and operation of oil (gas) pipelines and oil (gas) storage facilities (excluding aviation fuel pipelines and storage facilities)
- 432. Construction and operation of coal pipeline transportation facilities
- 433. Construction of logistics-related warehousing facilities, particularly automated high-bay warehouses; construction and operation of integrated warehousing facilities for packaging, processing, and distribution operations
- 434. Research, development, and application of technology equipment and green packaging related to express delivery services; research, development, and application of green logistics facilities and equipment
- 435. Construction and operation of pallet and unit load pooling systems
- 436. Rural and community logistics distribution
- 437. Provision and application of logistics and related technical services, including joint distribution of general commodities, cold chain logistics for fresh agricultural products, and low-temperature distribution for special pharmaceuticals
- 438. Construction of bulk commodity import/export distribution logistics centers
- 439. Construction of rural road passenger transport facilities and operation of rural road passenger transport companies

## VI. Wholesale and Retail Trade

- 440. E-commerce retail (including cross-border e-commerce, excluding goods subject to special regulatory management such as pharmaceuticals and medical devices)
- 441. E-commerce supply chain companies (including cross-border e-commerce, excluding pharmaceuticals, medical devices, and other goods subject to special regulatory management under laws and regulations)
- 442. Construction of Unified Distribution and Distribution Networks for Commercial and Catering Enterprises
- 443. Operation of Helium
- 444. Construction and operation of automotive refueling stations
- 445. Imported automobile wholesale and retail
- 446. Cultural and Creative Product Retail Industry

## VII. Information Transmission, Software, and Technology Services

- 447. E-commerce system development and application services; construction and operation of specialized asset trading platforms
- 448. Online education, online healthcare, and online office system development and application services

## VIII. Leasing and Business Services

- 449. International economic, technological, environmental, logistics information, business, accounting, and tax consulting services
- 450. Engineering consulting services
- 451. Information technology and business process outsourcing services including system application management and maintenance, IT support management, banking back-office services, financial settlement, software development, offshore call centers, and data processing through service outsourcing arrangements
- 452. Maintenance and repair of modern high-end equipment, digital production line transformation and integration, specialized repair services, and supply chain services
- 453. Conferences, exhibitions, and related services
- 454. Venture capital enterprises
- 455. Intellectual property services
- 456. Household services
- 457. Human resources services
- 458. Postpartum Care Centers Maternal and Infant Services
- 459. Travel and Convention Services
- 460. Language Services Industry (including translation, localization services, language technology development and application, language resource services, etc.)

## IX. Scientific Research, Development, and Product/Technology Services

- 461. Biotechnology and Biomedical Engineering Technology, Biomass Energy Development Technology R&D
- 462. R&D of DNA-encoded compound library technology
- 463. Veterinary and pet nutrition scientific research and technical services
- 464. Research and application of artificial intelligence technologies such as smart devices, robotics, neural network chips, and neuron sensors
- 465. Isotope, radiation, and laser technology R&D
- 466. Marine development and ocean energy technologies, comprehensive utilization of marine chemical resources, related product development and deep processing technologies, marine medicine and biochemical product development R&D
- 467. Marine monitoring technologies (ocean waves, meteorology, environmental monitoring), seabed exploration, and ocean resource prospecting

Evaluation technology R&D

468. Research and development of high-value-added utilization technologies for seawater chemical resources, including salt production, potassium, bromine, magnesium, and lithium extraction from concentrated seawater after desalination, and their deep processing

469. Marine oil spill cleanup and ecological restoration technologies and related product development; seawater eutrophication prevention technologies; marine algal bloom disaster prevention technologies; coastal zone ecological environment restoration technology R&D

470. Energy Conservation, Environmental Protection, and Circular Economy Technology R&D and Application

471. R&D and application of resource regeneration and comprehensive utilization technologies, as well as reuse technologies for industrial production effluents

472. Research and development of environmental pollution control and monitoring technologies

473. Clean production technology development and services; clean operation of traditional energy sources; engineering construction and technical services; clean production evaluation, certification, and auditing

474. Development and services for Carbon Capture, Utilization, and Storage (CCUS) technologies

475. Comprehensive R&D and Utilization of Green Building Technologies: Land Conservation and Outdoor Environment, Energy Conservation and Utilization, Water Conservation and Resource Utilization, Material Conservation and Resource Utilization, Indoor Environment and Operational Management

476. Research, development, and application of radioactive waste treatment technologies

477. Specialized construction, operation, and technical consulting services for hazardous waste utilization and disposal facilities

478. Energy conservation and consumption reduction in chemical fiber production and printing/dyeing processing; new products and technologies for waste treatment

479. Research, Development, and Application of Phosphogypsum Comprehensive Utilization Technologies

480. Research and development of sand prevention, control, and desertification restoration technologies

481. Research and Development of Integrated Grass-Livestock Balance Management Technology

482. Research, Development, and Application of Comprehensive Resource Utilization Technologies for Modern Livestock Waste

483. Research and Application of Novel Pesticide Application Technologies

484. Research and Development of Civil Satellite Application Technologies

485. Inspection, Testing, and Certification Services

486. Research and Development Center

487. High-Tech and New Product Development and Enterprise Incubation Center

488. Research and Development and Application of Fifth-Generation Mobile Communication Technology

489. Internet of Things Technology R&D and Application

490. Blockchain Technology R&D and Application

491. Creative Industries Including Industrial Design, Architectural Design, and Fashion Design

- 492. Urban and Rural Planning Services (excluding city and town master planning services)
- 493. Advanced System Integration Technologies and Services for Low-Carbon, Eco-Friendly, Green, Energy-Saving, and Water-Saving Applications
- 494. Development and Application of Environmentally Friendly Technologies
- 495. Professional design services

## **X. Water, Environmental, and Public Facilities Management**

- 496. River and lake water environment remediation, water ecological restoration, management, protection, and operation
- 497. Construction and operation of urban enclosed roads
- 498. Construction and operation of urban rail transit systems (subways, light rail, etc.)
- 499. Construction and operation of waste treatment plants, hazardous waste treatment and disposal facilities (incinerators, landfills), and environmental pollution control facilities
- 500. Construction and operation of urban parking facilities
- 501. Construction and operation of public transportation systems including taxis, streetcars, and buses

## **XI. Education**

- 502. Non-degree vocational training institutions
- 503. Non-degree language training institutions (excluding those serving primary/secondary students and preschool children aged 3 to 6)
- 504. Non-degree-granting arts training institutions (excluding those serving primary and secondary school students and preschool children aged 3 to 6)
- 505. Vocational colleges (including technical schools)

## **XII. Health and Social Work**

- 506. Service institutions for persons with disabilities and children (excluding child welfare institutions, minor rescue and protection institutions, and adoption registration agencies)
- 507. Elderly care services (including home-based and community-based elderly care services, institutional elderly care services, and the construction and operation of elderly care institutions and community elderly care service providers)
- 508. Medical institutions
- 509. Mental Health Rehabilitation Facilities
- 510. Psychological counseling institutions
- 511. Autism rehabilitation centers

512. Home-based aging-friendly renovations, senior-friendly living environment modifications, public facility aging-friendly and barrier-free renovations

513. Professional education in elderly care services, skills training in elderly care services, family caregiving skills training, and geriatric education

Education

### XIII. Culture, Tourism, Sports, and Entertainment

514. Performance Venue Management

515. Sports venue operation, fitness, competitive performances, sports training, and intermediary services

516. Tourism Infrastructure Development and Tourism Information Services

517. Scenic Area Management, Smart Scenic Area Development and Services

518. Construction, Operation, and Management of Outdoor Sports Camps and Other Fitness Facilities

519. Research, development, popularization, and promotion of smart sports products and services

## Catalogue of Advantageous Industries for Foreign Investment in Central and Western Regions

### Shanxi Province

1. Pasture and Forage Crop Cultivation and Deep Processing

2. Cultivation of minor grains and potatoes, along with product development and production

3. Follow-up industrial development for national key ecological projects such as the Grain-for-Green Program and natural forest conservation

4. Development and application of water-saving irrigation and dryland farming techniques, as well as conservation tillage technologies

5. Mining area ecosystem restoration and reconstruction projects

6. Comprehensive utilization of non-metallic minerals (kaolin, limestone, silica, quartz sand) (excluding exploration and mining)

7. Research, development, and manufacturing of production equipment for carbon-based materials (graphene, carbon fiber composites, etc.) (including chemical precipitation, carbonization sintering, etc.)

8. Integrated development and utilization of coalbed methane and coal-associated resources

9. Production of liquid fuels from coal

10. Comprehensive utilization of coke by-products

11. High-end textile, knitting, and apparel processing production of cotton, wool, hemp, silk, and chemical fibers, along with R&D and testing of related products

12. Deep processing of natural medicines, active pharmaceutical ingredients, and traditional Chinese patent medicines (excluding classified formulas)

13. Basalt fiber production
14. Technology development and product manufacturing of high-end glass products and high-tech ceramics (including industrial ceramics)
15. Technology development and deep processing of specialty float glass (ultra-clear, ultra-thin, online Low-E, insulating, ultra-thick)
16. Comprehensive utilization, refining, and application of non-metallic minerals (bauxite, mirabilite, refractory clay, perlite) (excluding exploration and mining)
17. Refined processing of non-ferrous metals such as magnesium and aluminum
18. Stainless steel product manufacturing
19. Automotive component manufacturing: 6-speed and above automatic transmissions, high-power-density drive axles for commercial vehicles, adaptive headlight systems, LED headlights, lightweight material applications, clutches, hydraulic shock absorbers, center console assemblies, seats, electric motors and control systems, active safety and autonomous driving control systems, fuel cell systems and components
20. Development and production of new steel materials such as high-speed train steel and amorphous strip steel
21. Production of aluminum alloy materials and products
22. Production of steel cord rubber conveyor belts
23. Hydraulic technology systems and mold production
24. Manufacturing of small and medium-sized agricultural machinery and supporting equipment for dryland and mountainous areas
25. Design and manufacturing of containerized energy storage units for photovoltaic solar power stations
26. Production of high-speed, precision CNC machine tools with three or more axes of simultaneous motion, along with supporting CNC systems, servo motors and drives, functional components, cutting tools, measuring tools, measuring instruments, and high-end abrasives
27. Production of large-scale coal mining equipment and explosion-proof electromechanical products
28. Production of nuclear power material transfer equipment and supporting components
29. Production and processing of novel medical devices and medical materials
30. Manufacturing of power supply and distribution equipment for metal mines, including: Design and manufacturing of IP65-rated outdoor electrical equipment; Design and manufacturing of outdoor pre-assembled electrical rooms; Design and manufacturing of unmanned pre-assembled electrical rooms; Design and manufacturing of mobile electrical rooms; Design and manufacturing of outdoor/underground skid-mounted high/low-voltage distribution centers; Manufacturing and programming of PLC programmable systems
31. Technology development and production of smart terminal products such as smartphones and tablets, along with their key components
32. Optical Communication Product Manufacturing
33. Integrated utilization of waste coal washing residues, coke oven gas waste heat power generation, and heating

34. Integrated utilization of waste from thermal power plants
35. Geothermal energy development, production, and utilization
36. Broadband services and value-added telecommunications services (limited to telecommunications services opened under China's WTO accession commitments)
37. Highway passenger transportation companies
38. Construction and operation of urban gas, heating, and water supply/drainage pipeline networks
39. Research, development, production, and application of energy storage technologies (including pumped storage, electrochemical storage, compressed air storage, flywheel storage, hydrogen storage, thermal storage, etc.)
40. Biomass energy development, production, and utilization
41. Art performance training, agency services, and industrial development of cultural supplies and equipment
42. Protection, development, and operation of tourist attractions (sites) and construction of supporting facilities
43. Development and utilization of cultural tourism and wellness industries

### **Inner Mongolia Autonomous Region**

1. Construction of standardized facility vegetable bases and intensive vegetable seedling nurseries
2. Pasture and forage crop cultivation and deep processing
3. Production and processing of green agricultural and livestock products (dairy, meat, wool, hides, potatoes, fruits and vegetables)
4. Desert industries including desert medicinal herbs, desert ecological economic forests, desert melons and fruits, desert facility agriculture, desert sand-based building materials, desert new energy, and desert tourism and leisure
5. Follow-up industrial development for national key ecological projects: returning farmland to forests and grasslands, returning grazing land to grasslands, protecting natural forests, returning farmland to lakes, returning farmland to wetlands, and combating desertification
6. Development and application of technologies including water-saving irrigation and dryland water conservation techniques, conservation tillage, low-yield farmland transformation, and saline-alkali land reclamation
7. Deep processing of non-ferrous metals such as copper, lead, zinc, magnesium, and aluminum
8. Comprehensive utilization, refined processing, and application of non-metallic minerals (kaolin, andalusite, bentonite, dolomite, graphite, perlite, zeolite) (excluding exploration and mining)
9. High-end textile, knitting, and apparel production and processing of cotton, wool, mohair, hemp, silk, and chemical fibers, along with R&D and testing of related products
10. Comprehensive development and utilization of coalbed methane and coal-associated resources
11. Development and utilization of clean coal technology products and supporting processing services (coal gasification, liquefaction, water-coal slurry,

industrial briquettes)

12. Development and utilization of downstream chemical products from natural gas (excluding those listed in the restricted or prohibited categories of the Natural Gas Utilization Policy)

13. Development and application of integrated utilization technologies such as producing 300,000 tons/year PVC via ethylene and chlorine using the chlorination process, and generating chlorine from waste hydrochloric acid

14. Development and production of high-performance silicone oils, silicone rubbers, resins, high-quality fluororesins, high-performance fluororubbers, fluorinated specialty chemicals, and high-quality fluorinated inorganic salts

15. Silicon material production and its applications

16. Development, conservation, and sustainable utilization of animal and plant medicinal resources: Establishment of cultivation bases for authentic Inner Mongolian medicinal herbs and distinctive Mongolian medicinal herbs; creation of conservation bases for endangered medicinal plants; development of seedling and seed production bases; construction of R&D centers for authentic medicinal herb extract factories

17. Production of ethnic minority specialty goods, arts and crafts, packaging materials, daily glassware, and distinctive tourism souvenirs

18. Production and application of carbon fiber products

19. Manufacturing of natural gas compressors (including coalbed methane compressors)

20. Special thread processing for high-performance oil and gas steel pipes

21. Research and development of Mongolian medicine and medical equipment

22. Manufacturing of complete vehicles and special-purpose vehicles (excluding standard semi-trailers, dump trucks, tank trucks, box trucks, and flatbed trucks) (subject to the "Regulations on the Administration of Automotive Industry Investment")

23. Automotive Parts Manufacturing: Automatic transmissions with six or more gears, high-power-density drive axles for commercial vehicles, adaptive headlight systems, LED headlights, lightweight material applications (high-strength steel, aluminum-magnesium alloys, composite plastics, powder metallurgy, high-strength composite fibers, etc.), clutches, hydraulic shock absorbers, center console assemblies, seats

24. Energy storage technology R&D and production applications (including pumped storage, electrochemical storage, compressed air storage, flywheel storage, hydrogen storage, thermal storage, etc.)

25. Manufacturing of solar and wind power generation equipment and components

26. Integrated utilization of coal washing residues, coke oven gas waste heat power generation, and heating

27. Broadband services and value-added telecommunications services (limited to telecommunications services opened under China's WTO accession commitments)

28. Highway Passenger Transport Company

29. Urban gas, heating, and water supply/drainage pipeline network construction and operation

30. Higher Education Institutions
31. Animation creation, production, and derivative product development
32. Construction of cultural performance venues and services such as performing arts training
33. Construction of sports facilities, operation of sporting events (excluding esports), and sports fitness and leisure services
34. Health and medical tourism development
35. Development, construction, and operation of ice and snow, forest, grassland, and desert eco-tourism resources
36. Protection, development, and operation of tourist attractions (sites) and construction of supporting facilities
37. Deep processing of resources and follow-up industries in resource-depleted cities

### Liaoning Province

1. Water-saving irrigation and dryland farming techniques, conservation tillage technology development and application
2. Development of follow-up industries for national key ecological projects such as returning farmland to forests and grasslands
3. Development and application of digital and intelligent livestock and poultry farming technologies
4. Construction of premium malt production bases and beer production
5. Magnesium and zirconium stone processing and comprehensive utilization
6. Processing and production of high-end textiles, knits, apparel, and clothing accessories from cotton, wool, hemp, silk, and chemical fibers, along with R&D and testing of related products
7. Development and production of biomedicine technologies; deep processing of natural medicines, active pharmaceutical ingredients, and traditional Chinese patent medicines (excluding classified formulas)
8. Production of high-performance radial tires: tubeless radial truck tires, low-profile and flat radial tires (below 55 series), high-performance radial tires for large rims (15 inches and above), aviation tires, and agricultural radial tires
9. Aluminum alloy and titanium alloy smelting and deep processing
10. Production of stainless steel products
11. Manufacturing of metal packaging, automated storage warehouses, and warehousing logistics equipment
12. Manufacturing of environmental protection equipment (air, wastewater, and solid waste treatment systems) and application of related solutions
13. Manufacturing of intelligent measurement and control devices and key components
14. Manufacturing of servo systems for high-end CNC machine tools
15. Automotive component manufacturing: 6-speed and above automatic transmissions, high-power-

density drive axles for commercial vehicles, adaptive headlight systems, LED headlights, lightweight material applications (high-strength steel, aluminum-magnesium alloys, composite plastics, powder metallurgy), clutches, hydraulic shock absorbers, center console assemblies, seats, automotive active and passive safety protection devices, automotive start-stop motors, new energy vehicle drive systems and control systems, high-efficiency and ultra-high-efficiency

metallurgy, high-strength composite fibers, etc.), clutches, hydraulic shock absorbers, center console assemblies, seats, automotive active and passive safety protection devices, automotive start-stop motors, new energy vehicle drive units and control systems, online self-adhesive production of stators and rotors for high-efficiency and ultra-high-efficiency motors

16. Production and processing of new medical equipment and medical materials
17. Deep processing of high-precision copper, aluminum, and alloy sheet and strip materials
18. Design, R&D, and manufacturing of non-volatile memory
19. Production and processing of compound semiconductor materials
20. Development and application of digital medical systems, community care, and personal health maintenance products
21. Research, development, and production applications of energy storage technologies (including pumped storage, electrochemical storage, compressed air storage, flywheel storage, hydrogen storage, thermal storage, etc.)
22. Development, production, and utilization of biomass energy
23. Modern high-end shipping services including vessel management and shipping brokerage
24. Road passenger transportation
25. Construction and operation of highway freight terminal facilities
26. Provision and application of cold chain logistics and related technical services for fresh agricultural, forestry, livestock, and fishery products
27. Broadband services and value-added telecommunications services (limited to telecommunications services opened under China's WTO accession commitments)
28. Construction and operation of urban gas, heating, and water supply/drainage pipeline networks
29. Water conservation technology upgrades, R&D, and promotion
30. Development of digital audio-visual and digital home products (excluding cable television networks and online audio-visual program services)
31. Higher education institutions
32. Protection, development, and operation of tourist attractions (sites) and construction of supporting facilities
33. Projects involving resource-intensive processing and successor industries in resource-depleted cities
34. Development of hot spring resources and construction/operation of hot spring resorts

### **Jilin Province**

1. Water-saving irrigation and dryland water-saving technologies, conservation tillage, low-yield farmland transformation, saline-alkali land improvement, and other technical development and application
2. Development and production of specialty grains and legumes such as oats, quinoa, mung beans, and red beans

3. Development and production of specialty foods and beverages from Changbai Mountain, including ginseng, deer antler, wild grapes, nuts, wild mountain vegetables, blueberries, mushrooms, forest frogs, oak silkworms, honey, schisandra berries, dandelion, and other regional ecological products

Schisandra, dandelion, and other Changbai Mountain specialty ecological foods and beverages

4. Wood processing utilizing overseas resources
5. Livestock and poultry breeding, production, and processing
6. Beer manufacturing industry
7. Production of natural mineral water
8. Development and comprehensive utilization of diatomaceous earth resources (excluding exploration and mining)
9. Development of deep processing technologies for animal bone products and related manufacturing
10. High-end textile, knitting, apparel, and semi-finished garment processing and production for cotton, wool, hemp, silk, and chemical fibers, along with R&D and testing of related products
11. Lignite wax extraction
12. Development, conservation, and sustainable utilization of animal and plant medicinal resources
13. Research, development, and production of biodegradable bio-based materials and products
14. Development and production of glyphosate and glyphosate intermediates
15. Development and deep processing of specialty float glass (ultra-clear, ultra-thin, online Low-E, insulating, ultra-thick)
16. Production of carbon fiber precursor, carbon fiber, and associated auxiliary materials; manufacturing of carbon fiber composites and products
17. Production of viscose staple fiber and viscose filament
18. Production and development of basalt fiber new materials
19. Production of high-performance radial tires: tubeless radial truck tires, low-profile and low-section (below 55 series), large rim high-performance passenger radial tires (15 inches and above), aviation tires, and agricultural radial tires
20. Production of aluminum alloy materials and products
21. Production of energy-saving products such as LEDs and new components
22. Development and production of biomedicine technologies; production of modern Chinese medicine products
23. Development and production of medical equipment and key components
24. Production of winter sports and tourism equipment
25. Manufacturing of tourism equipment such as cable cars and amusement facilities
26. Production and manufacturing of heat exchanger equipment
27. Automotive component manufacturing: automatic transmissions with six or more gears, high-power-density drive axles for commercial vehicles, adaptive headlight systems

Headlight systems, LED headlights, lightweight material applications (high-strength steel, aluminum-magnesium alloys, composite plastics, powder metallurgy, high-strength composite fibers, etc.), clutches, hydraulic shock absorbers, center console assemblies, seats

28. Automotive wiring harness processing technology development and product manufacturing

29. Special-purpose vehicle manufacturing (excluding standard semi-trailers, dump trucks, tank trucks, box trucks, and flatbed trucks) (subject to the "Regulations on the Administration of Automotive Industry Investment")

30. Technology development and production of smart terminal products (smartphones, tablets, etc.) and key components

31. Development, production, and utilization of biomass energy

32. Broadband services and value-added telecommunications services (limited to telecommunications services opened under China's WTO accession commitments)

33. Road Passenger Transportation Companies

34. Automotive financial services

35. Construction and operation of urban gas, heating, and water supply/drainage pipeline networks

36. Higher education institutions

37. Animation creation, production, and derivative product development

38. Development of snow tourism resources and construction/operation of supporting facilities such as ski resorts and hotels

39. Tourist Attraction (Site) Protection, Development, Operation, and Supporting Facility Construction

40. Development of hot spring resources and construction and operation of hot spring resorts

41. Development and operation of sightseeing agriculture and leisure agriculture, including supporting facilities construction

42. Deep processing of resources and follow-up industries in resource-depleted cities

43. Art performance training and intermediary services

## Heilongjiang Province

1. Development of follow-up industries for national key ecological projects such as returning farmland to forests and grasslands and natural forest conservation

2. Research and innovation in black soil conservation and utilization technologies

3. Development and application of water-saving irrigation, dryland water-saving techniques, and conservation tillage technologies

4. Mining area ecosystem restoration and reconstruction projects

5. Wood processing and wood product manufacturing utilizing overseas resources

6. Manganese and iron ore beneficiation and comprehensive utilization

7. Breeding and processing of high-grade beef cattle
8. Production of natural mineral water and natural soda water

9. Sugar beet processing with a daily capacity of 3,000 tons or more, and comprehensive utilization of sugar beet by-products
10. Potato breeding and deep processing
11. Green food production
12. Production of dairy products including milk powder, cream, cheese, liquid milk, and functional milk
13. Production and processing of non-GMO soybean products including nutritional soybean milk powder, traditional soybean products, functional protein products, and soybean phospholipids
14. Biomedical technology development and production; deep processing of natural medicines, active pharmaceutical ingredients, and traditional Chinese patent medicines (excluding classified formulas)
15. Production of Ethnic Minority Specialty Goods, Arts & Crafts, and Characteristic Tourism Souvenirs
16. Production of winter sports and tourism equipment
17. Research, development, and production of artistic ceramics, tableware ceramics, and industrial ceramics
18. High-end applications and deep processing of graphite
19. Comprehensive utilization of non-metallic minerals (kaolin, limestone, silica, quartz sand) (excluding exploration and mining)
20. Research and development of industrial technologies for new non-metallic mineral materials
21. Research, production, and manufacturing of carbon-based materials (graphene, carbon fiber, including composites) and their end products
22. Development and production of silicon-based and photovoltaic new materials
23. Titanium product processing
24. Manufacturing of cutting tools, measuring instruments, and cutting edges
25. Production of modern agricultural equipment and supporting farm implements: high-horsepower tractor components, rice transplanters and other planting machinery, corn harvesters, grain combine harvesters, other harvesters and supporting components
26. Production of high-performance radial tires: tubeless radial truck tires, low-profile and flat tires (below 55 series), large rim high-performance passenger car radial tires (15 inches and above), aviation tires, and agricultural radial tires
27. Gas turbine R&D and manufacturing
28. Snow removal equipment manufacturing
29. Manufacturing of precision and ultra-precision machine tools
30. Special-purpose vehicle manufacturing (excluding standard semi-trailers, dump trucks, tank trucks, box trucks, and flatbed trucks) (subject to the "Regulations on the Administration of Automotive Industry Investment")
31. Automotive component manufacturing: automatic transmissions with six or more gears, high-power-density drive axles for commercial vehicles, adaptive headlight systems, LED headlights, lightweight material applications (high-strength steel, aluminum-magnesium alloys, composite plastics, powder metallurgy, etc.),

clutches, hydraulic shock absorbers, center console assemblies, seats, electronic instrument clusters

metallurgy, high-strength composite fibers, etc.), clutches, hydraulic shock absorbers, center console assemblies, seats, electronic instrument clusters

32. Development and production of medical equipment and key components
33. Biomass energy development, production, and utilization
34. Nuclear power equipment production: R&D and manufacturing of critical supporting components such as nuclear power motors, cables, and nuclear island reactor internal structures
35. Manufacturing of smart grid management and control system equipment
36. Digital economy-related industries (excluding online audio-visual program services): Internet production services such as digital commerce and smart logistics; R&D of intelligent manufacturing technologies; construction of public service platforms and enterprise innovation empowerment centers; digital content services including animation
37. Broadband services and value-added telecommunications services (limited to telecommunications services opened under China's WTO accession commitments)
38. Road passenger transportation companies
39. Higher education institutions
40. Urban gas, heating, and water supply/drainage pipeline network construction and operation
41. Animation creation, production, and derivative product development
42. Industrial development of cultural performances, artistic training, and agency services
43. Construction of sports venues and facilities, operation of sports events (excluding esports), and sports fitness and leisure services
44. Development of forest and snow tourism resources, construction and operation of ski resorts
45. Development of hot spring resources and construction and operation of hot spring resorts
46. Protection, development, and operation of tourist attractions (sites) and construction of supporting facilities
47. Development and operation of sightseeing agriculture and leisure agriculture, along with supporting facility construction
48. Deep processing of resources and follow-up industries in resource-depleted cities
49. Health and wellness industry
50. Cold-region specialty bio-industry and cold-region testing, among other cold-region industries

### **Anhui Province**

1. Water-saving irrigation and dryland water-saving technologies, development and application of conservation tillage techniques
2. Comprehensive utilization of coal-associated resources (excluding exploration and mining), including kaolin, coalbed methane (coal gas), mine water, and natural coke
3. Comprehensive utilization of non-metallic minerals (calcite, bentonite, kaolin, attapulgite clay, limestone,

quartz sand)

(excluding exploration and mining)

4. Green Food Production

5. High-end textile, knitting, and apparel processing production for cotton, wool, hemp, silk, and chemical fibers, along with R&D and testing of related products

6. Research and production of functional eco-friendly recycled polyester filament yarn

7. Manufacturing of complete footwear such as leather shoes and athletic shoes

8. Deep processing of natural medicines, active pharmaceutical ingredients, and traditional Chinese patent medicines (excluding classified formulas)

9. Deep processing of coal tar

10. Research and development, manufacturing of new materials such as nanomaterials

11. Production of long-lasting, energy-efficient, and environmentally friendly refractory materials

12. Refined processing and comprehensive utilization of non-ferrous metals such as copper, zinc, and aluminum

13. Manufacturing of high-grade seamless steel pipes and oil well casing

14. Packaging and decorative printing

15. Technology development and deep processing of specialty float glass (ultra-clear, ultra-thin, online Low-E, insulated, ultra-thick)

16. Production of Bio-Liquid Fuels (Fuel Ethanol, Biodiesel) Using Non-Food Crops such as Cassava, Jatropha, and Rubber Seeds

17. Production of High-Performance Radial Tires: Truck tires, tubeless radial truck tires, low-profile and low-section

(below 55 series), large-rim high-performance passenger radial tires (15 inches and above), aviation tires, and agricultural radial tires

18. Manufacturing of high-end medical devices and medical dressings

19. Automotive component manufacturing: automatic transmissions with six or more gears, high-power-density drive axles for commercial vehicles, adaptive headlight systems, LED headlights, lightweight material applications (high-strength steel, aluminum-magnesium alloys, composite plastics, powder metallurgy, high-strength composite fibers, aluminum-based composites, etc.), clutches, hydraulic shock absorbers, center console assemblies, seats, bearings

20. Manufacturing of complete sets of new dry-process cement equipment

21. Development and manufacturing of electric forklifts, hydraulic excavators over 30 tons, and related components

22. Gas turbine R&D and manufacturing

23. Integrated mining equipment for mines with an annual capacity of 5 million tons or more and thin coal seams; large-scale equipment for open-pit mines with an annual capacity of 10 million tons or more

Open-pit mining key equipment; distributed control systems (DCS) for major technical equipment such as large metallurgical complete sets of equipment

24. Manufacturing of mineral processing equipment for difficult-to-process metals and large-scale metallurgical complete sets of equipment
25. Development and production of medical equipment and key components
26. Development and production of household appliances meeting national Class 1 or Class 2 energy efficiency standards
27. Research, development, and manufacturing of upstream and downstream semiconductor lighting materials and related equipment
28. Integrated circuit materials, equipment, and chip manufacturing; R&D and manufacturing of compound semiconductor materials and devices
29. Research, development, and manufacturing of flat panel displays and their upstream/downstream materials, components, and equipment
30. Technology development and production of smart terminal products (smartphones, tablets, etc.) and key components
31. Research and development, manufacturing of smart voice, quantum communication, and other devices
32. Manufacturing of basic materials for photovoltaic modules, including encapsulation films (EVA), photovoltaic glass, backsheets, and junction boxes
33. Research and production of new materials for energy conversion in the new energy sector
34. Creative industries including engineering survey and design, graphic design, and automatic control system design
35. Recycling of waste paper
36. Development, production, and utilization of biomass energy
37. Road passenger transportation companies
38. Travel agencies
39. Higher education institutions
40. Animation Creation, Production, and Derivative Product Development
41. Construction and Operation of Urban Gas, Heating, and Water Supply/Drainage Networks
42. Tourist attraction (site) conservation, development, operation, and supporting facility construction
43. Projects for resource-intensive processing and successor industries in resource-depleted cities

### **Jiangxi Province**

1. Planting and deep processing of specialty and advantageous plants such as navel oranges, honey

tangerines, sweet pomelos, tea leaves, Chinese tallow trees, camellia oleifera, ramie, bamboo, Chinese yam, Chinese chives, lotus, kudzu, peanuts, sesame, and mugwort, as well as authentic medicinal herbs and crops with dual medicinal and edible uses

2. Primary or deep processing of garden flowers
3. Production of natural mineral water
4. Development and production of selenium-enriched agricultural products and foods
5. Copper ore beneficiation, extraction of associated elements, and deep processing and recycling

6. Refined processing of non-metallic mineral products including kaolin, quartz powder, wollastonite, sepiolite, chemical-grade dolomite, granite, and bluestone
7. Research, development, and production of fluorosilicate organic materials
8. High-end textile, knitting, and apparel processing of cotton, wool, hemp, silk, and synthetic fibers, along with R&D and testing of related products
9. Wooden furniture design and processing utilizing overseas timber resources
10. Production of handicrafts, gardening supplies, and bamboo/wood products
11. Development and production of luggage and apparel accessories
12. Manufacturing of complete footwear such as leather shoes and athletic shoes
13. Chemical wood pulp production lines with an annual capacity of 300,000 tons or more per line, chemical mechanical pulp production lines with an annual capacity of 100,000 tons or more per line, chemical bamboo pulp production lines with an annual capacity of 100,000 tons or more, and corresponding integrated forestry-paper production lines with paper and paperboard production lines (newsprint, etc.) paper production lines (excluding newsprint and coated paper) with corresponding supporting paper and paperboard production lines, utilizing clean production processes and non-wood fiber raw materials, with a single production line capacity of 100,000 tons/year or more for chemical bamboo pulp. excluding coated paper), utilizing clean production processes and non-wood fiber raw materials; construction of pulp production lines with a single line capacity of 100,000 tons/year or more
14. Production of bio-liquid fuels from cassava plants with an annual output of 100,000 tons or more
15. Deep processing, application product manufacturing, and recycling of rare metal resources such as tungsten, nickel, cobalt, tantalum, and niobium
16. Development and application of integrated utilization technologies for producing 300,000 tons/year or more of PVC via the oxychlorination process using ethylene and chlorine, and converting waste hydrochloric acid into chlorine
17. Research, development, and production of natural medicines, active pharmaceutical ingredients, and traditional Chinese patent medicines (excluding classified formulas); initial development and utilization of generic drugs addressing major and prevalent diseases in China
18. Research, development, and production of artistic ceramics, tableware ceramics, and industrial ceramics
19. Production of high-performance radial tires: tubeless radial truck tires, low-profile and flat tires (below 55 Series), high-performance radial tires for large rims (15 inches and above), aviation tires, and agricultural radial tires
20. Packaging and decorative printing
21. Research, development, and production of communication terminal products and components
22. Manufacturing of new electronic component copper-clad laminates
23. Automotive component manufacturing: automatic transmissions with six or more gears, high-power-density drive axles for commercial vehicles, adaptive headlight systems, LED headlights, lightweight material

applications (high-strength steel, aluminum-magnesium alloys, composite plastics, powder metallurgy, high-strength composite fibers, etc.), clutches, hydraulic shock absorbers, center console assemblies, seats

24. Development and production of medical equipment and critical components

25. Production of air conditioners, high-efficiency energy-saving compressors, and components
26. Solar power generation equipment and component manufacturing
27. Research, development, manufacturing, and engineering installation of distributed energy storage systems based on new energy batteries such as lithium-ion, sodium-ion, and aluminum batteries
28. R&D and production of upstream and downstream semiconductor chip products
29. Research, development, and manufacturing of upstream and downstream semiconductor lighting materials and related equipment
30. Research, development, and manufacturing of specialized equipment for lithium battery and other lithium product production
31. Research, application, and manufacturing of optical components and coating technologies
32. Development and application of photovoltaic power generation system integration technology
33. Broadband services and value-added telecommunications services (limited to telecommunications services opened under China's WTO accession commitments)
34. Highway passenger transportation companies
35. New distribution models such as commercial chain operations and cross-regional agency operations
36. Vocational and skills training services based on virtual reality (VR) or augmented reality (AR) devices
37. Animation creation, production, and derivative product development
38. Wellness and leisure services, leisure tourism, and other leisure industries
39. Protection, development, operation of tourist attractions (sites), and construction of supporting facilities
40. Cultural and creative industries based on virtual reality (VR) or augmented reality (AR) devices (excluding online audio-visual program services), including software and hardware development, as well as the design, production, and sale of related virtual products and physical peripherals

## Henan Province

1. Cultivation and processing of high-quality tea, willow branches, garlic, peanuts, chrysanthemums, honeysuckle, raspberries, cornelian cherries, kiwifruit, shiitake mushroom paste, vermicelli, sesame seeds, edible fungi, citrus fruits, apricot pears, soft-seeded pomegranates, and other advantageous and distinctive agricultural products and crops with dual medicinal and edible uses
2. Follow-up industrial development for national key ecological projects such as returning farmland to forests and grasslands and natural forest conservation
3. Development and application of water-saving irrigation, dryland water conservation techniques, and conservation tillage technologies
4. Production of flavored noodles and rice products
5. Deep processing of non-ferrous metals including copper, magnesium, zinc, aluminum, lead, and precious metals

6. High-end textile, knitting, and apparel processing of cotton, wool, hemp, silk, and chemical fibers, along with R&D of related products

## Inspection

7. Development and production of coalbed methane (coal mine gas) extraction and utilization technologies and products
8. Comprehensive utilization of coke by-products
9. Production of superhard material products
10. Deep processing of natural medicines, active pharmaceutical ingredients, and Chinese patent medicines (excluding classified formulas)
11. Digital packaging and decorative printing
12. Technology development and deep processing of specialty float glass (ultra-clear, ultra-thin, online Low-E, insulated, ultra-thick)
13. Production of high-performance radial tires: tubeless radial truck tires, low-profile and low-section (below 55 series), large-rim high-performance passenger radial tires (15 inches and above), aviation tires, and agricultural radial tires
14. Research, development, and manufacturing of production equipment for carbon-based materials such as graphene and carbon fiber (composites) (including chemical vapor deposition, carbonization sintering, etc.), as well as R&D, production, and manufacturing of end products for carbon-based materials including graphene, carbon fiber (including composites)
15. Hydraulic tubing industry production, R&D, and testing
16. Automotive component manufacturing: automatic transmissions with six or more gears, high-power-density drive axles for commercial vehicles, adaptive headlight systems, LED headlights, lightweight material applications (high-strength steel, aluminum-magnesium alloys, composite plastics, powder metallurgy, high-strength composite fibers, etc.), clutches, hydraulic shock absorbers, center console assemblies, seats
17. Production and processing of novel medical devices and medical materials
18. R&D and production of epidemic prevention and protective products and related manufacturing equipment
19. Silicon-based material production, processing, and application
20. High-speed, precision CNC machine tools with three or more axes of simultaneous motion, along with supporting CNC systems, servo motors and drive units, functional components, cutting tools, measuring tools, measuring instruments, and high-end abrasives
21. Production of intelligent modern agricultural equipment and supporting farm implements
22. Manufacturing of wheeled tractors with power ratings above 300 horsepower equipped with continuously variable transmissions (CVTs), and key components for tractors above 300 horsepower: CVT tractor engines, transmissions, hydraulic-mechanical control systems, and dual-input dual-output continuously variable speed control devices
23. Integrated mining and excavation equipment for mines with an annual capacity of 5 million tons or more and thin coal seams; key equipment for large-scale open-pit mines with an annual capacity of 10 million tons or more; complete sets of drilling rigs including deep well drilling rigs for depths of 12,000 meters or more, polar drilling rigs, high-mobility deep well desert drilling rigs, drilling rigs for swampy and hard-to-reach areas, marine drilling rigs, truck-mounted drilling rigs, and drilling rigs for special drilling processes

## Equipment

24. Manufacturing of integrated power management automation equipment
25. Manufacturing of solar photovoltaic products
26. Development and production of smart terminals such as smartphones and tablets, along with key components
27. Manufacturing of air conditioners, refrigerators, high-efficiency energy-saving compressors, and components
28. Biopharmaceutical Technology Development and Production
29. Development, production, and utilization of biomass energy
30. Broadband services and value-added telecommunications services (limited to telecommunications services opened under China's WTO accession commitments)
31. Construction and operation of highway freight terminal facilities
32. Highway passenger transportation companies
33. Creative design, industrial design, software design and production
34. Higher education institutions
35. Animation creation, production, and derivative product development
36. Construction and Operation of Urban Gas, Heating, and Water Supply/Drainage Networks
37. Development and operation of sightseeing agriculture, leisure agriculture, and facility agriculture, along with supporting infrastructure construction
38. Health and medical tourism development
39. Protection, development, and operation of tourist attractions (sites) and construction of supporting facilities

## Hubei Province

1. Development, R&D, Processing, and Export of Specialized Agriculture, Forestry, Animal Husbandry, and Fisheries Industries (excluding grain crops)
2. Breeding of New Crop Varieties and Seed Production
3. Tea cultivation, processing, and procurement services
4. Development and application of conservation tillage technology
5. Production of Natural Mineral Water for Drinking
6. Development and production of selenium-enriched agricultural products and foods
7. Development of high-end textile and apparel craftsmanship technologies
8. Production of Nonwoven Fabrics and Medical Textiles

9. Development, Conservation, and Sustainable Utilization of Medicinal Plant and Animal Resources and Health Products; Research and Development of Plant Flower, Leaf, Root, and Stem Products; Deep Processing of Grain Oil Extraction

10. High-end textile, knitted, and apparel processing production of cotton, wool, hemp, silk, and chemical fibers, along with R&D and testing of related products

11. Manufacturing of complete footwear such as leather shoes and athletic shoes

12. Packaging and decorative printing

13. Biomedical technology R&D and production

14. Research and development, manufacturing of production equipment for carbon-based materials (graphene, carbon fiber (composites), etc.) (including chemical precipitation, carbonization sintering, etc.), research and development, production of carbon-based materials (graphene, carbon fiber (including composites), etc.), and manufacturing of end products

15. Fine processing of turquoise

16. Extended processing and recycling of copper ore and other non-ferrous metal products

17. Development and deep processing of specialty glass (ultra-clear, ultra-thin, online Low-E, insulated, ultra-thick)

18. Watch manufacturing

19. Ceramic sanitary ware production

20. Air conditioners, high-efficiency energy-saving compressors, and component manufacturing

21. Manufacturing of energy-saving, water-saving, and environmentally friendly equipment and application of related solutions

22. Automotive component development and manufacturing: 6-speed and above automatic transmissions, high-power-density drive axles for commercial vehicles, adaptive headlight systems, LED headlights, lightweight material applications (high-strength steel, aluminum-magnesium alloys, carbon fiber, composite plastics, powder metallurgy, high-strength composite fibers, etc.), Clutches, hydraulic shock absorbers, automotive power steering systems, center console assemblies, seats, common rail fuel injection system components, turbocharged engines, electric motors and control systems, active safety and autonomous driving control systems along with their critical components and parts

23. Carbon fiber fully-wrapped plastic liner hydrogen storage cylinders for automotive applications

24. Production of high-performance radial tires: tubeless radial truck tires, low-profile and ultra-low-profile (below 55

series), large-rim high-performance passenger car radial tires (15 inches and above), aviation tires, and agricultural radial tires

25. High-speed, precision CNC machine tools with three or more axes in linkage, along with supporting CNC systems, servo motors and drive units, functional components, cutting tools, measuring tools, measuring instruments, and high-end abrasives and grinding tools

26. Manufacturing of special steel wire ropes and cables (average tensile strength > 2200 MPa)

27. Development and manufacturing of laser medical equipment

28. Manufacturing of high-end oil and gas extraction equipment (petroleum mechanical fracturing equipment)

29. Development and application of digital medical systems, community care, and personal health maintenance products
30. Production of flexible displays and display materials
31. Manufacturing of solar power generation equipment and components
32. Development and manufacturing of optoelectronic technologies and products (including optical fiber preforms and semiconductor light-emitting diodes (LEDs))
33. Integrated circuit materials, equipment, and chip manufacturing; compound semiconductor materials and device R&D and manufacturing
34. Lithium resource processing and R&D/manufacturing of related lithium products
35. Comprehensive utilization of waste gases, liquids, and residues from pharmaceutical and chemical raw materials
36. Production and processing of novel medical devices and medical materials
37. Research, development, and production of epidemic prevention and protective products
38. Development and construction of enterprise food safety traceability systems
39. Development, production, and utilization of biomass energy
40. Research, development, and application of energy storage technologies (including pumped storage, electrochemical storage, compressed air storage, flywheel storage, hydrogen storage, thermal storage, etc.)
41. Broadband services and value-added telecommunications services (limited to telecommunications services opened under China's WTO accession commitments)
42. Highway passenger transportation companies
43. Development and application of integrated photovoltaic-storage-charging systems and new energy vehicle charging equipment technologies
44. New distribution models such as commercial chain operations and cross-regional agency operations
45. Animation creation, production, and derivative product development
46. Construction and operation of urban gas, heating, and water supply/drainage pipeline networks
47. Protection, development, and operation of tourist attractions (sites) and construction of supporting facilities
48. Health and medical tourism development

### Hunan Province

1. Development and application of water-saving irrigation, dryland farming techniques, and conservation tillage technologies
2. Planting and processing of woody oil crops such as camellia

3. Development and construction of enterprise food safety traceability systems
4. Full Industry Chain Development and Operation in Agriculture, Animal Husbandry, and Food Industries
5. Production and processing of high-end textiles, knitwear, and apparel using cotton, wool, hemp, silk, and synthetic fibers, along with R&D and testing of related products

6. Manufacturing of complete footwear such as leather shoes and athletic shoes
7. Development and production of luggage, toys, wigs, and specialty handicrafts
8. Development and manufacturing of high-end eco-friendly bamboo and wood furniture, engineered bamboo materials, outdoor bamboo products, disposable tableware, and bamboo fiber products
9. High-performance concrete admixtures
10. Deep processing of manganese and zinc
11. Production of bismuth compounds
12. Advanced processing of aluminum-based lightweight metal materials
13. Research, development, and production of artistic ceramics, daily-use ceramics, and industrial ceramics
14. Deep Processing of Natural Medicines and Chinese Patent Medicines (Excluding Classified Formulas)
15. Advanced Development of Hormone-Based Medications
16. Development and deep processing of specialty glass technologies (ultra-clear, ultra-thin, online Low-E, insulated, ultra-thick, etc.)

#### Processing

17. High-end hot-rolled seamless steel pipes for construction, nuclear power pipes, seamless steel pipes for supercritical high-pressure boilers, and large-diameter steel pipes for refined oil

#### Casing

18. Production of high-performance radial tires: tubeless radial truck tires, low-profile and flat tires (below 55 series), large-rim high-performance passenger car radial tires (15 inches and above), aviation tires, and agricultural radial tires

19. Deep processing of cemented carbide

20. Bimetal high-speed sawing tools

21. Research, development, and manufacturing of thermal management systems and control systems for new energy vehicles, including electric drive thermal management systems, battery thermal management systems, passenger compartment thermal management systems, and their control systems.

22. Development and manufacturing of automotive components and electronic systems: - Automatic transmissions with six or more gears - High-power-density drive axles for commercial vehicles - Adaptive headlight systems - LED headlights - Lightweight material applications (high-strength steel, aluminum-magnesium alloys, composite plastics, powder metallurgy, high-strength composite fibers, etc.) - Clutches - Hydraulic dampers - Center console assemblies - Seats - Products related to fuel common-rail injection systems - Turbocharged engines - Electric motors and control systems - Active safety and autonomous driving control systems

23. High-speed, precision CNC machine tools with three or more coordinated axes and supporting CNC systems, servo motors and drive units, functional components, cutting tools, measuring tools, measuring instruments, and high-end abrasive tools and materials production

24. Hydraulic excavators over 30 tons, full-face tunnel boring machines 6 meters and above, crawler dozers  
320 horsepower and above

,6-ton and above loaders, 600-ton and above bridge erection equipment (including bridge erectors, girder transporters, and girder lifters), 400-ton and above crawler cranes, 100-ton and above all-terrain cranes, rock drilling rigs with 100mm and above bore diameter, 400kW and above cold/hot concrete recycling equipment, 1-meter-wide and above milling machines;Key Components: Power-shift transmissions

, wet drive axles, slewing bearings, torque converters, electric motors and electronic controls for electric forklifts, hydraulic motors, pumps, and control valves with pressures of 25

MPa hydraulic motors, pumps, control valves

25. Concrete machinery:Lifting machinery: Tower cranes, aerial work platforms 50 meters and above, tire cranes 50 tons and above; Road machinery: Asphalt pavers 12 meters and above, asphalt concrete mixing plants 4 tons and above, fully hydraulic rollers 26 tons and above, waste collection, transportation, and processing equipment and systems, etc.

26. Manufacturing of key components for large construction machinery: Power-shift transmissions, wet drive axles, slewing bearings, torque converters, electric motors and electronic controls for electric forklifts, hydraulic motors, pumps, and control valves rated at 25 MPa and above

27. Manufacturing of machinery and equipment for the production and processing of camellia oil, bamboo, and wood industries

28. Manufacturing of complete sets of new rubber machinery equipment

29. Production and processing of new medical devices and medical materials

30. Development and production of wide-area electromagnetic exploration equipment

31. Development and production of digital prototypes and digital twins for large-scale underground engineering equipment

32. Development and manufacturing of electronic products, optoelectronics, electronic materials, electronic components, and parts

33. Technology development and production of smart terminal products (smartphones, tablets, etc.) and key components

34. Manufacturing of solar and wind power generation equipment and components

35. Development and production of photosensitive inks for 3D glass and ceramics

36. Development and production of high-purity metal materials for displays and semiconductors

37. Development, production, and utilization of biomass energy

38. Broadband services and value-added telecommunications services (limited to telecommunications services opened under China's WTO accession commitments)

39. Road passenger transportation companies

40. Animation creation, production, and derivative product development

41. Construction and operation of urban gas, heating, and water supply/drainage pipeline networks

42. Construction of cultural performance venues, artistic performance training, and related services

43. Construction of sports venues and facilities, operation of sports events (excluding esports), and sports fitness and leisure services

44. Health and medical tourism development
45. Protection, development, and operation of tourist attractions (sites) and construction of supporting facilities
46. Protection, development, and operation of natural heritage sites and construction of supporting facilities

### Guangxi Autonomous Region

1. Breeding of new crop varieties and seed production
2. Research and application of deep processing and comprehensive utilization technologies for fruits, nuts, oil-bearing fruits, spices, and beverage crops

#### Application

3. Follow-up industrial development for national key ecological projects such as returning farmland to forests and grasslands
4. Development and Production of Medicinal Plant and Animal Resources
5. Production and processing of non-GMO soybean products such as nutritious soy milk powder, traditional soy products, functional protein products, and soy lecithin

#### Production and processing of non-GMO soybean products

6. Deep processing of sucrose with a daily processing capacity of 5,000 tons or more and comprehensive utilization of by-products
7. Deep processing of rosin
8. Production of natural mineral water
9. Beer manufacturing industry
10. Design and manufacturing of wood, bamboo, rattan, metal, and plastic furniture
11. High-end textile, knitting, and apparel processing production of cotton, wool, linen, silk, and chemical fibers, along with R&D and testing of related products
12. Development and production of footwear, hats, toys, wigs, luggage, and leather goods
13. Integrated forestry-paper production lines with a single chemical wood pulp capacity of 300,000 tons/year or more, chemical mechanical wood pulp capacity of 100,000 tons/year or more, chemical bamboo pulp capacity of 100,000 tons/year or more, and corresponding supporting paper and paperboard production lines (newsprint, etc.)

integrated forestry-paper production lines with annual capacities of 100,000 tons or more for chemical bamboo pulp, along with corresponding paper and paperboard production lines (newsprint, (Excluding coated paper) Construction of pulp production lines utilizing clean production processes, non-wood fiber feedstocks, and single-line capacities of 100,000 tons/year or higher; development and manufacturing of

advanced pulping and papermaking equipment; development and application of elemental chlorine-free (ECF) and totally chlorine-free (TCF) chemical pulp bleaching processes.

14. Research, development, and manufacturing of production equipment for carbon-based materials such as graphene and carbon fiber (composites) (including meteorological precipitation, carbonization sintering, etc.); R&D, production, and manufacturing of end products for carbon-based materials including graphene, carbon fiber (including composites)

15. Calcium carbonate deep processing

16. Development and production of cathode materials (ternary/multicomponent, lithium iron phosphate, etc.), anode materials (mesophase carbon microspheres, silicon-carbon, etc.), single-layer/three-layer composite lithium-ion battery separators, electrolytes (fluorinated ethylene carbonate, FEC), and additives for lithium-ion batteries; resource recovery of waste batteries and green recycling production processes and equipment manufacturing

17. Production of stainless steel products

18. Production of copper and aluminum alloy materials and products

19. Advanced processing of zinc, tin, antimony, tungsten, manganese, indium, and other metals

20. Research, development, and production of artistic ceramics, daily-use ceramics, and industrial ceramics

21. Deep processing of natural medicines, active pharmaceutical ingredients, and traditional Chinese patent medicines (excluding confidential formulas); research and development of Zhuang medicine and Zhuang medical equipment

22. Biopharmaceutical technology R&D and biopharmaceutical production; development and production of generic drugs that have passed the consistency evaluation of quality and efficacy for generic drugs

23. Research, development, and manufacturing of medical instruments, equipment, surgical instruments, sanitary materials, pharmaceutical supplies, and pharmaceutical excipients

24. Technology development and deep processing of specialty float glass (ultra-clear, ultra-thin, online Low-E, insulating, ultra-thick)

25. Production of bio-liquid fuels (fuel ethanol, biodiesel) using non-food crops such as cassava, jatropha, and rubber seeds

26. Production of high-performance radial tires: tubeless radial truck tires, low-profile and flat tires

(below 55

series), large-rim high-performance passenger radial tires (15 inches and above), aviation tires, and agricultural radial tires

27. Manufacturing of complete vehicles and special-purpose vehicles (excluding standard semi-trailers, dump trucks, tank trucks, box trucks, and flatbed trucks) (subject to the "Regulations on the Administration of Automotive Industry Investment")

28. Automotive component manufacturing: automatic transmissions with six or more gears, high-power-density drive axles for commercial vehicles, adaptive headlight systems, LED headlights, lightweight material applications (high-strength steel, aluminum-magnesium alloys, composite plastics, powder metallurgy, high-strength composite fibers, etc.), clutches, hydraulic shock absorbers, center console assemblies, seats

29. Manufacturing of engines meeting Stage IV non-road emission standards

30. Research and manufacturing of agricultural machinery such as sugarcane planters and harvesters

31. Manufacturing of new rubber machinery complete sets of equipment

32. Manufacturing of key components for large construction machinery: power-shift transmissions, wet drive axles, slewing bearings, torque converters, electric motors and electronic controls for electric forklifts, hydraulic motors, pumps, and control valves rated at 25 MPa or higher

33. Development and production of high-end pharmaceutical equipment
34. Development, application, or manufacturing of integrated photovoltaic-storage-charging systems and new energy vehicle charging equipment
35. Technology development and production of smart terminal products (smartphones, tablets) and key components
36. Third-party technical platforms for R&D and production of pharmaceuticals and medical devices, including drug screening platforms, clinical technology transfer platforms, and pilot-scale production platforms
37. Broadband services and value-added telecommunications services (limited to telecommunications services opened under China's WTO accession commitments)
38. Road passenger transportation companies
39. Meeting and exhibition planning, preparation, and related services
40. International ship agency and foreign vessel cargo survey
41. Ship supply, third-party ship management, shipping arbitration, marine loss adjustment, shipping transactions, shipping leasing, bonded warehousing, international logistics distribution, shipping information services, crew services, maritime training, and other shipping services
42. Investment and development of cross-border industrial cooperation including cross-border tourism, cross-border logistics, and cross-border human resources services
43. Higher Education Institutions
44. Construction and operation of urban gas, heating, and water supply/drainage pipeline networks
45. Animation creation, production, and derivative product development
46. Wellness and leisure services, leisure tourism, and other leisure industries
47. Health and medical tourism development
48. Protection, development, and operation of tourist attractions (sites) and construction of supporting facilities
49. Construction of sports venues and facilities, operation of sporting events (excluding esports), and sports fitness and leisure services
50. Design and production of distinctive tourism crafts

### **Hainan Province**

1. Breeding of superior crop and livestock varieties and seedling production
2. Introduction, cultivation, and operation of tropical fruit tree seedlings
3. Aquatic product processing and comprehensive utilization of by-products
4. Deep Processing of Coconuts and Bird's Nest
5. Development and application of coastal forest restoration, natural forest conservation, water-saving irrigation, and dryland water conservation technologies

6. Development and application of agricultural waste recycling technologies

7. Production of Natural Mineral Water for Drinking

8. Development and production of biomedicine technologies
9. Research, development, and production of traditional Chinese medicine and ethnic medicine in Hainan Province
10. Seabed mineral exploration and mining
11. Production of High-End Furniture Using Overseas Timber and Rattan as Raw Materials
12. Creative design and production of tourism crafts
13. Development and utilization of downstream chemical products from natural gas (excluding those listed in the restricted or prohibited categories of the Natural Gas Utilization Policy)
14. Production of high-performance radial tires: tubeless radial truck tires, low-profile and flat tires (below 55 series), large-rim high-performance passenger radial tires (15 inches and above), aviation tires, and agricultural radial tires  
Technology development and equipment manufacturing for offshore wind turbines of 15.5MW and above, construction of offshore wind farms
16. Production and processing of new medical equipment and materials, particularly R&D and manufacturing of medical instruments and devices with independent intellectual property rights
17. Research, development, manufacturing, inspection, maintenance, sales, and supporting industries for equipment related to offshore oil exploration, extraction, and production
18. Manufacturing of precision mechanical watches, mechanical clocks, and components; manufacturing of smartwatches and components
19. Design, R&D, and component manufacturing for new energy vehicles
20. Research, development, and production of epidemic prevention and protective products and their manufacturing equipment
21. Research and development of new energy and clean energy-powered vessels
22. Design, manufacturing, and maintenance of cruise ships, construction of related infrastructure facilities, ship supply services, and tourism product operation services
23. Design, manufacturing, and maintenance of yachts, construction of related infrastructure facilities, ship supply services, and tourism product operation services
24. Research and development, manufacturing of offshore engineering equipment
25. Manufacturing of golf equipment
26. Development and manufacturing of optoelectronic technologies and products (including optical fiber preforms and semiconductor light-emitting diodes (LEDs))
27. Technology development and production of smart terminal products (smartphones, tablets, etc.) and key components
28. Manufacturing of aerospace-related equipment
29. High-end consumer goods operations

30. Offshore new international trade (technology-intensive services)

31. Broadband services and value-added telecommunications services (limited to telecommunications services opened under China's WTO accession commitments)
32. Road passenger transportation companies
33. Modern Supply Chain Innovation and Application
34. Aviation Fuel Supply
35. Ship Supply (including marine products and materials)
36. International waterborne passenger and cargo transportation and auxiliary services
37. International Ship Agency Services, Foreign Vessel Cargo Survey
38. Ship Supply, Third-Party Ship Management, Marine Insurance, Maritime Arbitration, Marine Claims Adjustment, Shipping Transactions, Shipping Finance, Ship Leasing, Bonded Warehousing, International Logistics Distribution, Shipping Information Services, Crew Services, Maritime Training, and Other Shipping Services
39. Commodity Trading (excluding goods subject to national quota management)
40. Brand experience stores, brand direct-sales shopping centers, chain convenience stores, theme malls
41. Trade brokerage, agency, and services
42. New Energy Vehicle and Parts Sales
43. Global consolidation and distribution system R&D and operational management
44. Construction and operation of tourism, eco-friendly, and cultural-themed hotels
45. Machinery and equipment leasing
46. Pharmaceutical and Medical Device Outsourcing Services (Contract Research Organization CRO, Contract Development and Manufacturing Organization CDMO)
47. Pharmaceutical Consulting
48. Park Management Services
49. R&D and design of processes, equipment, and technologies for high-end chemicals, new chemical materials, and natural gas chemical industries

#### Design

50. Securities Companies, Futures Companies, Insurance Companies
51. Venture capital, angel investment, other futures market services, capital investment services
52. Financial leasing services
53. Operating leases and maintenance services for medical equipment, business aircraft, and new energy vehicles
54. Design, processing, manufacturing, and trade of consumer luxury goods such as diamonds, precious stones, and jewelry
55. Travel agencies

56. International schools for children of expatriates

57. Regular high schools and higher education institutions
58. High-end specialized medical, rehabilitation, nursing, and other healthcare services
59. Construction and operation of urban gas, heating, and water supply/drainage pipeline networks
60. Cinema construction and operation
61. Internet access service establishments
62. Animation creation, production, and derivative product development
63. Performance agency services
64. Operation of entertainment venues
65. Sports, health, and leisure services; sports tourism; wellness and leisure services
66. Health and medical tourism, sports tourism development
67. Development and operation of rural homestays and RV tourism, including supporting infrastructure construction
68. Development and operation of sightseeing agriculture and leisure agriculture, along with supporting facility construction
69. Tourist attraction (site) conservation, development, operation, and supporting facility construction
70. Development, operation, and supporting facility construction for marine and tropical rainforest eco-tourism resources
71. Tourism communities and resorts based on the concept of urban complexes
72. Smart Sports

## Chongqing Municipality

1. Development of distinctive agriculture, forestry, animal husbandry, and fishery industries; technological R&D; product processing and export
2. Beer manufacturing industry
3. Exploration, extraction, and beneficiation of marine and lacustrine shale in upstream oil and gas areas with no mining rights (particularly in the Sichuan Basin); development and application of shale oil and gas technologies
4. Production and development of downstream chemical products from natural gas (excluding those listed in the restricted or prohibited categories of the Natural Gas Utilization Policy)
5. Development and production of polyurethane primary raw materials, formulations, high-performance and high-value-added polyurethanes, engineering plastics, and innovative application products for downstream new materials
6. Deep processing of natural medicines, active pharmaceutical ingredients (APIs), and traditional Chinese patent medicines (excluding classified formulas); processing of traditional Chinese medicine and extraction of bioactive components; production of specialty APIs and intermediates, overseas traditional Chinese medicines, and generic chemical drugs
7. Biopharmaceutical technology development and production

8. Research, development, and manufacturing of production equipment for carbon-based materials such as graphene and carbon fiber (composites) (including meteorological deposition and carbonization sintering), as well as R&D, production, and manufacturing of end products for carbon-based materials including graphene and carbon fiber (including composites)

9. Technical development and production application of aerogel energy-saving materials

10. Production of long-life, energy-saving, environmentally friendly refractory materials

11. Technology development and deep processing of specialty float glass (ultra-clear, ultra-thin, online Low-E, insulated, ultra-thick, body-tinted) and automotive-grade float glass (85%+ of automotive glass production)

12. Design and manufacturing of wood, bamboo, rattan, metal, and plastic furniture

13. High-end textile, knitted, and apparel processing production using cotton, wool, linen, silk, and synthetic fibers

14. Toy development and production

15. Research, development, and production of artistic ceramics, tableware ceramics, and industrial ceramics

16. Advanced processing of aluminum and magnesium

17. Manufacturing of environmental protection equipment (air, wastewater, solid waste treatment equipment) and application of related solutions

18. Manufacturing of high-performance motorcycles with displacement of 250cc and above, and key components

19. Manufacturing of complete automobiles and special-purpose vehicles (excluding standard semi-trailers, dump trucks, tank trucks, box trucks, and flatbed trucks) (subject to the "Regulations on the Administration of Automotive Industry Investment")

20. Production of high-performance radial tires: tubeless radial truck tires, low-profile and flat tires (below 55

series), large-rim high-performance passenger car radial tires (15 inches and above), aviation tires, agricultural radial tires, and those listed in the

Guidelines for Key Areas of High-Tech Industrialization with Current Priority for Development

21. Automotive Parts Manufacturing: Components for turbocharged direct-injection gasoline engines/clean high-efficiency diesel engines/drive systems (clutches, dampers, dual-mass flywheels) meeting China VI emission standards and above; automatic transmissions with six or more gears (AT, DCT, AMT); seats; drive shafts; electric power steering system components; specialized engines/transmissions for new energy vehicles; Key components for new energy vehicles: power lithium batteries, drive motors, electronic control systems, electric brakes, digital instrument clusters, energy recovery systems, electric air conditioning, remote monitoring systems; intelligent vehicle components including transmission/safety/body/driving/information control systems, advanced driver assistance systems (ADAS), autonomous driving control systems; Engine aftertreatment systems (DPF, GPF, SCR), alternative fuel engine ECU control strategies and related hardware/software; lightweight chassis and body structures; lightweight material applications (high-strength steel, aluminum-magnesium alloys, composite plastics, powder metallurgy, high-strength composite fibers, etc.); development of industry-shared technology platforms (automotive wind tunnels, lightweighting facilities, global R&D centers, etc.)

22. Energy storage technology R&D and production applications (including pumped storage, electrochemical storage, compressed air storage, flywheel storage, hydrogen storage, thermal storage, etc.)
23. R&D and manufacturing of natural gas distributed energy gas turbines and internal combustion engines
24. Manufacturing of solar power generation equipment and components
25. Mass production of large-scale digital integrated circuits with line widths below 0.25 micrometers
26. Technology development and production of smart terminal products and components/devices (computers, smartphones, home appliances, smart home devices, etc.)
27. Production and application of electronic specialty gases, compound semiconductors, and electronic chemicals for display and chip manufacturing
28. Development and production of novel medical devices, medical materials, rehabilitation equipment, and critical components
29. Research and development, manufacturing of 500 kV and above high-voltage direct current converter transformers
30. Production of energy-efficient home appliances meeting Tier 3 or higher energy efficiency standards, along with key components such as compressors, motors, inverters, and LCD panels; development of new technologies including wireless power transmission, glasses-free 3D, and motion-sensing input
31. R&D and manufacturing of upstream and downstream semiconductor lighting materials and related equipment
32. Production and application of special industrial gases such as carbon dioxide recovery and carbon monoxide
33. R&D and application of FINEX technology and high-speed, headless continuous rolling technology
34. Manufacturing of high-precision, high-reliability process measurement instruments and smart sensors
35. New distribution models including commercial chain operations and cross-regional agency management
36. Broadband services and value-added telecommunications services (limited to telecommunications services opened under China's WTO accession commitments)
37. Compliance modifications for parallel-imported vehicles
38. Application of third-party technology platforms for pharmaceutical and medical device R&D and production
39. Higher education institutions
40. Construction and operation of urban gas, heating, and water supply/drainage pipeline networks
41. Digital creative, animation creation, production, and derivative product development (excluding online audio-visual program services)
42. Travel agency operations; protection, development, and operation of tourist attractions (sites) and construction of supporting facilities

43. Financial technology product R&D, application, and service provision for financial institutions
44. Microfinance services **for agriculture**, rural areas, and farmers; small and micro enterprises; and individual businesses
45. Integrated solar thermal utilization and photovoltaic power generation applications in buildings; R&D and promotion of energy-efficient, green, and prefabricated building technologies and products; urban landscaping and ecological community development

## Sichuan Province

1. Development of distinctive agriculture, forestry, animal husbandry, and fishery industries; technological R&D, product processing, and export (including traditional Chinese medicine, sweet potatoes, lemons, tea, fruit wine, etc.)
2. Development and application of water-saving irrigation, dryland farming techniques, and conservation tillage
3. Exploration, extraction, and beneficiation of marine and lacustrine shales in upstream oil and gas mineral rights blank areas (particularly in the Sichuan Basin), and development and application of shale oil and gas technologies
4. Production of Natural Mineral Water for Drinking
5. Beer manufacturing industry
6. High-end textile, knitting, and apparel processing production of cotton, wool, hemp, silk, and chemical fibers, along with R&D and testing of related products
7. Manufacturing of complete footwear such as leather shoes and athletic shoes
8. Development and production of stationery, toys, teaching aids, and luggage
9. Manufacturing of heavy-duty corrugated cardboard and carton equipment
10. Design and manufacturing of wood, bamboo, rattan, metal, and plastic furniture
11. Research, development, and manufacturing of sporting goods and related products
12. Development and production of polyurethane primary raw materials, formulations, high-performance/high-value-added polyurethanes, engineering plastics, and innovative downstream new material applications
13. Deep processing of natural medicines, active pharmaceutical ingredients, and traditional Chinese patent medicines; cultivation, breeding, and processing of specialty Chinese medicinal materials (excluding classified prescriptions)
14. Research, development, and production of biopharmaceuticals, pharmaceutical intermediates, and biological agents
15. Development and production of high-end medical equipment and medical materials
16. Manufacturing of high-end medical devices and biopharmaceuticals
17. Production of drugs for malignant tumors, cardiovascular and cerebrovascular diseases, neurodegenerative diseases, diabetes, autoimmune diseases, hematological disorders, and other major diseases
18. Production of preventive vaccines for major infectious diseases such as epidemic respiratory diseases and hepatitis, as well as novel vaccines for tumors and cardiovascular/cerebrovascular diseases
19. Research, development, and manufacturing of new technologies and products for comprehensive utilization of vanadium-titanium resources
20. Advanced processing of titanium alloys
21. Production and development of downstream chemical products from natural gas (excluding those listed in the restricted and prohibited categories of the Natural Gas Utilization Policy)

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22. Production of fluorine-containing fine chemicals and high-quality fluorine-containing inorganic salts
23. Technology development and deep processing of specialty float glass (ultra-clear, ultra-thin, online Low-E, insulating, ultra-thick)
24. Research, production, and manufacturing of carbon-based materials such as graphene and carbon fiber (including composites)
25. High-end applications and deep processing of graphite
26. Manufacturing of cables and wiring harnesses (including high-end automotive wiring harnesses, industrial wiring harnesses, LVDS connectors, cables, and supporting polymer materials)
27. Development and production of silicon materials and crystalline silicon photovoltaic new materials
28. Production of specialty ceramics for industrial, medical, electronic, aerospace, and other applications; development of related technologies and equipment; clean production and comprehensive utilization technologies for ceramics
29. 3D Automotive Cover Glass Manufacturing (In-Vehicle Display Protective Materials)
30. Lithium Resource Processing and R&D/Manufacturing of Related Lithium Products
31. Research and production of high-end diagnostic and therapeutic equipment, including novel radiotherapy and chemotherapy systems, medical robots, and advanced digital medical imaging devices
32. Research and manufacturing of energy-efficient, low-temperature household grain storage equipment
33. Research, development, manufacturing, and inspection/testing of large amusement facilities
34. Manufacturing of complete vehicles and special-purpose vehicles (excluding standard semi-trailers, dump trucks, tank trucks, box trucks, and flatbed trucks) (subject to the "Regulations on the Administration of Automotive Industry Investment")
35. Production of high-performance radial tires: tubeless radial truck tires, low-profile and flat tires (below 55 series), large-rim high-performance passenger radial tires (15 inches and above), aviation tires, and agricultural radial tires
36. Development and manufacturing of automotive components and electronic systems: automatic transmissions with six or more gears, high-power-density drive axles for commercial vehicles, adaptive headlight systems, LED headlights, lightweight material applications (high-strength steel, aluminum-magnesium alloys, composite plastics, powder metallurgy, high-strength composite fibers, etc.), clutches, hydraulic shock absorbers, center console assemblies, seats, common rail fuel injection system components, turbocharged engines, electric motors and control systems, active safety and autonomous driving control systems
37. Hydraulic excavators over 30 tons, full-face tunnel boring machines 6 meters and above, crawler dozers 320 horsepower and above, loaders 6 tons and above, bridge erection equipment 600 tons and above (including bridge erectors, girder transporters, girder lifters), crawler cranes 400 tons and above, all-terrain cranes 100 tons and above, Drilling rigs for rock drilling with a diameter of 100 mm or more,

400-kilowatt and above cold/hot concrete recycling equipment, 1-meter-wide and above milling machines; Key components: power-shift transmissions

, wet drive axles, slewing bearings, torque converters, electric motors for electric forklifts, electronic controls, hydraulic motors, pumps, and control valves rated at 25

MPa hydraulic motors, pumps, control valves

38. Manufacturing of solar power generation equipment and components

39. Vanadium flow battery development and production

40. Energy storage technology R&D and production applications (including pumped storage, electrochemical storage, compressed air storage, flywheel storage, hydrogen storage, thermal storage, etc.)

R&D and manufacturing of high-temperature components and control systems for large-scale, heavy-duty gas turbines rated at 41.3000 kW and above

42. R&D and manufacturing of upstream and downstream semiconductor lighting materials and related equipment

43. Development and production of precision electronic injection-molded products

44. Manufacturing of high-end home appliances including LCD TVs, digital TVs, energy-efficient refrigerators, and smart washing machines

45. Technology development and production of smart terminal products (smartphones, tablets, etc.) and key components

46. Development and production of materials for electronic products including semiconductors, optoelectronic devices, and novel electronic components

47. Manufacturing of new electronic components: high-speed, high-sensitivity electronic (gas) connectors

48. Development and production of medical and rehabilitation equipment, devices, and critical components

49. Manufacturing of natural gas compressors (including coalbed methane compressors)

50. Manufacturing of environmental protection equipment and application of related solutions

51. Resource utilization of industrial tailings, industrial production waste, and low-grade, complex, and difficult-to-process ores

52. Manufacturing of industrial process automation control systems and devices: fieldbus control systems, programmable logic controllers

(PLC), two-phase flow meters, solid flow meters, new sensors, and field measurement instruments

53. New distribution models such as commercial chain operations and cross-regional agency operations

54. Broadband services and value-added telecommunications services (limited to telecommunications services opened under China's WTO accession commitments)

55. Highway passenger transportation companies
56. Sightseeing tourism, sports aviation, and general aviation companies
57. Health consultation, health management, medical knowledge, and other healthcare information services
58. Construction and operation of urban gas, heating, and water supply/drainage pipeline networks
59. Animation creation, production, and derivative product development
60. Artistic performance training, agency services, and industrial development of cultural supplies and equipment
61. Tourist attraction (site) conservation, development, operation, and supporting facility construction

62. Health tourism development

63. Development of digital cultural and sports tourism, wellness and sports tourism, music tourism, and other products

## Guizhou Province

1. Tea cultivation, development, breeding, sales, deep processing, and breeding and promotion of new varieties
2. Development of selenium-enriched agricultural product cultivation and cultivation techniques (excluding grain crops); development and production of selenium-enriched agricultural products and foods (excluding grain crops)
3. Cultivation, development, breeding, sales, deep processing of blueberries, and breeding and promotion of new varieties
4. Cultivation, processing, and development of new pharmaceutical processes for specialty medicinal plants
5. Follow-up industrial development for national key ecological projects such as returning farmland to forests and grasslands and natural forest conservation
6. Development and application of water-saving irrigation and dryland water conservation technologies
7. Deep processing of potatoes, konjac, and other products
8. Deep processing of livestock, poultry, chili peppers, buckwheat, Chinese yam, and walnuts
9. High-end textile, knitting, and apparel processing production for cotton, wool, hemp, silk, and chemical fibers, along with R&D and testing of related products
10. Research, development, and manufacturing of sporting goods and related products
11. Production of needle coke and deep processing of crude benzene
12. Construction and operation of energy-saving technical renovation projects for fixed-bed ammonia synthesis units using advanced technologies
13. Development of M100 novel power fuel using methanol and utilization of ammonia synthesis tail gas for new energy
14. Development of industrial-grade and food-grade carbon dioxide utilizing industrial carbon dioxide waste gas
15. Adipic acid production
16. Construction and operation of coal-to-ammonia synthesis projects with an annual capacity of 300,000 tons or more, including supporting urea production, utilizing advanced technologies
17. Development, conservation, and sustainable utilization of plant and animal medicinal resources
18. Development and deep processing of specialty float glass (ultra-clear, ultra-thin, online Low-E, insulated, ultra-thick)
19. Deep processing of non-ferrous metals such as aluminum

20. Development of High-Performance Aluminum Alloy Series Products
21. Development and Application of Novel Short-Process Iron and Steel Smelting Technology
22. Development and Application of Non-Blast Furnace Smelting Technology (Direct Reduction Process)

23. Production of Abrasive Tools and Grinding Products
24. Development of New Rock Drilling Tools and Production of Steel Materials for Their Use
25. Manufacturing of Production Equipment for Liquor and Tea Production
26. Processing of positive and negative electrode materials for new energy batteries (Lithium Iron Phosphate, Lithium Hexafluorophosphate processing)
27. Research, Development, and Manufacturing of Upstream and Downstream Products and Related Equipment for Semiconductor Lighting Materials
28. Research and production of power lithium battery materials
29. Manufacturing of complete vehicles and special-purpose vehicles (excluding standard semi-trailers, dump trucks, tank trucks, box trucks, and flatbed trucks) (subject to the "Regulations on the Administration of Automotive Industry Investment")
30. Automotive component manufacturing: automatic transmissions with six or more gears, high-power-density drive axles for commercial vehicles, adaptive headlight systems, LED headlights, lightweight material applications (high-strength steel, aluminum-magnesium alloys, composite plastics, powder metallurgy, high-strength composite fibers, etc.), clutches, hydraulic shock absorbers, center console assemblies, seats
31. Development and manufacturing of specialized construction machinery with distinctive advantages, bridge-laying and road-paving machinery, crushing machinery, hydraulic components, CNC machine tools, energy-saving and environmental protection equipment, and products up to 4MW gas turbines
32. Development and production of series products for compound permanent magnet motor-driven oil pumps
33. Micro-motor production and manufacturing
34. Development and manufacturing of specialized mining equipment and products for complex geological conditions, including excavation, tunneling, hoisting, and underground transportation
35. Development and manufacturing of agricultural machinery suitable for western mountainous regions, including lightweight, durable, and low-consumption small-to-medium-sized cultivation and harvesting equipment, plant protection machinery, water-saving irrigation systems, small-scale drought-resistant equipment, and machinery for grain, oil crops, tea, and specialty agricultural products
36. Manufacturing of solar power generation equipment and components
37. Broadband services and value-added telecommunications services (limited to telecommunications services opened under China's WTO accession commitments)
38. Highway passenger transportation companies
39. Performance agency services
40. Construction and operation of urban gas, heating, and water supply/drainage pipeline networks
41. Comprehensive conservation of the Maotai Ecological Belt and application of remote sensing technology in the Chishui River basin
42. Protection, development, operation of tourist attractions (sites), and construction of supporting facilities
43. Production of Ethnic Minority Specialty Goods, Arts & Crafts, Silver Jewelry, Embroidery, Batik, and Other Characteristic Handicrafts and Tourist Souvenirs

#### 44. Health and Wellness Tourism Development

## Yunnan Province

1. Cultivation, development, breeding, sales, deep processing, and breeding/promotion of new varieties for coffee, tea, oil tea, and tung oil
2. Development and application of new natural rubber
3. Production technology development and manufacturing of natural flavorings and essences
4. Follow-up industrial development for national key ecological projects such as returning farmland to forests and grasslands and natural forest conservation
5. Highland lake conservation and pollution control
6. Development and application of water-saving irrigation and dryland farming technologies
7. Developmental Management of Rural Homestays and Leisure Agriculture, Including Supporting Infrastructure Construction
8. Research, development, and manufacturing of universal power platforms and supporting agricultural machinery for hilly and mountainous regions, including tillage, transplanting, inter-row cultivation, plant protection, and harvesting
9. Highland grape breeding, cultivation, production, and winemaking
10. Beer Manufacturing Industry
11. Deep Processing of Nonferrous Metals
12. Planting and deep processing of fruits, nuts, oilseeds, spices, and beverage crops
13. Deep processing of sugarcane with a daily processing capacity of 3,000 tons or more, and comprehensive utilization of by-products such as molasses, bagasse, sugarcane leaves, filter mud, and alcohol waste liquid
14. Nutritional and Health Food Development and Production
15. Development and application of specialty edible resources
16. Processing, development, and comprehensive utilization of flax by-products in compliance with ecological and environmental requirements
17. Production of biofuels (fuel ethanol, biodiesel) using non-food crops such as cassava, jatropha, and rubber seeds
18. High-end textile, knitting, and apparel processing and production using cotton, wool, hemp, silk, and chemical fibers, along with R&D and testing of related products
19. Development and production of footwear, hats, toys, wigs, luggage, and leather goods
20. Development, conservation, and sustainable utilization of animal and plant medicinal resources
21. Production of high-end furniture using imported wood and rattan as raw materials
22. Research, development, and manufacturing of sporting goods and related products

23. Packaging decoration and other printing
24. Production of ethnic specialty goods, distinctive handicrafts, and packaging materials
25. Development and production of biomedical technologies
26. Deep processing of natural medicines, active pharmaceutical ingredients (APIs), and traditional Chinese patent medicines; processing of traditional Chinese medicine and extraction of bioactive components; production of specialty APIs and intermediates, overseas Chinese herbal medicines, and generic chemical drugs (excluding classified prescriptions)
27. Technology development and deep processing of specialty float glass (ultra-clear, ultra-thin, online Low-E, insulated, ultra-thick)
28. Production, advanced processing, and application of green aluminum, green silicon, and green titanium
29. Development and production of specialty engineering machinery, CNC machine tools, and energy-saving environmental protection equipment with distinctive advantages
30. Manufacturing of biomass power generation equipment
31. Manufacturing of solar and wind power generation equipment and components
32. Research, development, and manufacturing of green, energy-efficient, environmentally friendly, and intelligent agricultural machinery (including equipment for cleaning, grading, sorting, drying, and packaging agricultural products)
33. Research and manufacturing of mechanized integrated solutions for efficient plant protection, on-site drying, deep processing, straw treatment, and other stages of cultivation and harvesting
34. Manufacturing of complete vehicles and special-purpose vehicles (excluding standard semi-trailers, dump trucks, tank trucks, box trucks, and flatbed trucks) (subject to the "Regulations on the Administration of Automotive Industry Investment")
35. Comprehensive management of solid waste from limestone mines
36. Production and manufacturing of telecommunications equipment, smart terminals, and components for fourth-generation, fifth-generation, and subsequent mobile communication systems, along with related software and hardware R&D and technical services
37. Production, manufacturing, R&D, and technical services for new data center-related software/hardware systems, equipment, and components
38. Production, R&D, and technical services for IoT-related software/hardware systems, equipment, and components
39. Cross-border logistics and cold chain logistics
40. Broadband services and value-added telecommunications services (limited to telecommunications services opened under China's WTO accession commitments)
41. New distribution models such as commercial chain operations and cross-regional agency operations
42. Research, development, and production applications of energy storage technologies (including pumped storage, electrochemical storage, compressed air storage, flywheel storage, hydrogen storage, thermal storage, etc.)
43. Development and operation of sightseeing agriculture and leisure agriculture, along with supporting facility construction

44. Art performance training, intermediary services, and ecological tourism resource development
45. Protection, development, and operation of tourist attractions (sites) and construction of supporting facilities
46. Construction of cultural performance venues and establishment of performance brokerage agencies
47. Health and medical tourism development

### **Tibet Autonomous Region**

1. Highland specialty agricultural and livestock products (barley, cattle, sheep, etc.) cultivation, breeding, and production processing
2. Pasture and forage crop cultivation and deep processing
3. Follow-up industrial development for national key ecological projects such as returning farmland to forests and grasslands and protecting natural forests
4. Development and application of water-saving irrigation and dryland farming technologies
5. Development and utilization of salt lake resources
6. Production of natural mineral water
7. Deep processing of cashmere, sheep wool, leather products, and Tibetan carpet production
8. Establishment and operation of flower and nursery bases
9. Research and Development of Understory Resource Cultivation Techniques and Deep Processing of Understory Products
10. Development and Utilization of New Technologies for Crops such as Barley and Forage Grasses
11. Development and Utilization of Plateau-Specific Food Resources and Production Processing
12. Deep processing of natural medicines, raw pharmaceutical materials, and proprietary Chinese medicines (excluding classified formulas)
13. Production of new varieties and dosage forms of Tibetan medicine
14. Production of ethnic minority specialty goods, arts and crafts, packaging materials, daily glassware, and distinctive tourism souvenirs
15. Manufacturing of environmental protection equipment and application of solutions
16. Manufacturing of solar, geothermal, and wind power generation equipment and components
17. Production and processing of novel medical devices and medical materials
18. Mining area ecosystem restoration and reconstruction projects
19. Broadband services and value-added telecommunications services (limited to telecommunications services opened under China's WTO accession commitments)
20. Road passenger transportation companies
21. Distribution industry including commercial outlet construction, warehousing and logistics

infrastructure development, commercial chain operations, and cross-regional agency operations

22. Energy storage technology R&D and production applications (including pumped storage, electrochemical storage, compressed air storage, flywheel storage, hydrogen storage, thermal storage, etc.)
23. Construction and operation of urban gas, heating, and water supply/drainage pipeline networks
24. Development, operation, and supporting facility construction for sightseeing agriculture and leisure agriculture
25. Protection, development, operation, and supporting facility construction of tourist attractions (sites)
26. Development of hot spring resources and construction of hot spring resorts

### Shaanxi Province

1. Breeding of new crop varieties and seed production
2. Cultivation, product development, production, and deep processing of minor grains, potatoes, sweet potatoes, chili peppers, buckwheat, Chinese yam, and walnuts
3. Development of selenium-enriched specialty agricultural products (excluding grain crops)
4. Construction of Good Agricultural Practice (GAP) Production Bases for Traditional Chinese Medicinal Materials
5. Follow-up industrial development for national key ecological projects such as returning farmland to forests and grasslands, natural forest conservation, and water source protection
6. Development and application of water-saving irrigation, dryland water conservation, conservation tillage, and facility agriculture technologies
7. High-end textile, knitting, and apparel processing production of cotton, wool, hemp, silk, and chemical fibers, along with R&D and testing of related products
8. Development, Conservation, and Sustainable Utilization of Animal and Plant Medicinal Resources
9. Coal-to-chemicals utilization: coal-to-methanol-olefins and downstream coal-to-aromatics-ethylene glycol polyester production
10. Production of oil products and chemicals from coal liquefaction
11. Production and development of downstream chemical products from natural gas (excluding those listed in the restricted or prohibited categories of the Natural Gas Utilization Policy)
12. Development and production of biomedicine technologies
13. Technology Development and Deep Processing of Specialty High-Quality Float Glass (Ultra-Clear, Ultra-Thin, Online Low-E, Insulated, Ultra-Thick)
14. Production and processing of vanadium alloy products
15. Advanced processing of aluminum, magnesium, and titanium metals
16. Production of antimicrobial active pharmaceutical ingredients for animals (including antibiotics and chemically synthesized types) and animal vaccines
17. High-speed, precision CNC machine tools with five or more axes of simultaneous motion, along with supporting CNC systems, servo motors and drive units,

Functional components, cutting tools, measuring instruments,  
gauges, and high-end abrasives production

18. Production and processing of novel medical devices and medical materials
19. Research, development, and production of epidemic prevention and protective products and their manufacturing equipment
20. Manufacturing of power distribution switchgear and control equipment
21. Design and manufacturing of blast furnace gas energy recovery turbine units
22. Manufacturing of complete vehicles and special-purpose vehicles (excluding standard semi-trailers, dump trucks, tank trucks, box trucks, and flatbed trucks) (subject to the "Regulations on the Administration of Automotive Industry Investment")
23. Automotive component manufacturing: medium- and heavy-duty engines for commercial vehicles meeting Stage VI or higher emission standards, high-power-density drive axles, adaptive headlight systems, LED headlights, clutches, hydraulic shock absorbers, center console assemblies, seats, lightweight material applications
24. Research and development of high-voltage power transmission, transformation, and control equipment
25. Research, development, and production of integrated circuits and manufacturing equipment
26. Technology development and production of smart terminal products (smartphones, tablets, etc.) and key components
27. Production of flexible displays and display materials
28. Research, development, and production of contact display and communication terminal products and components
29. New distribution models including commercial chain operations and cross-regional agency operations
30. Broadband services and value-added telecommunications services (limited to telecommunications services opened under China's WTO accession commitments)
31. Highway passenger transportation companies
32. Conference and exhibition planning, preparation, and related services
33. Higher education institutions
34. Animation creation, production, and derivative product development
35. Construction and operation of urban gas, heating, and water supply/drainage pipeline networks
36. Sports Event Operations (excluding esports) and Sports Fitness & Leisure Services
37. Development and operation of sightseeing agriculture and leisure agriculture, along with supporting facility construction
38. Wellness and leisure services, leisure tourism, and other leisure industries
39. Travel agencies

40. Protection, development, and operation of tourist attractions (sites) and construction of supporting facilities

41. Projects involving resource-intensive processing and successor industries for resource-depleted cities

## Gansu Province

1. Water-saving irrigation and dryland water-saving technologies, development and application of conservation tillage techniques
2. Development and production of melon, fruit, vegetable, and flower seeds
3. Large-scale, standardized cultivation, breeding, and deep processing of distinctive agricultural and livestock products with competitive advantages in cold and arid agriculture along the modern Silk Road
4. Wood processing utilizing overseas resources
5. Cultivation, Breeding, and Processing of Specialty Chinese Medicinal Herbs; Construction of Good Agricultural Practice (GAP) Production Bases for Chinese Medicinal Herbs
6. Production and development of downstream chemical products from natural gas (excluding those listed in the restricted or prohibited categories of the Natural Gas Utilization Policy)
7. Extended processing of petroleum and chemical industries
8. Comprehensive utilization of waste gases, liquids, and residues from chemical raw materials
9. Research, development, and production of epidemic prevention and protective products and related production equipment
10. Research, development, and production of biomedicines, pharmaceutical intermediates, and biological agents
11. Development and production of medical equipment and key components
12. Research, development, and manufacturing of production equipment for carbon-based materials (graphene, carbon fiber (composites), etc.) (including chemical vapor deposition, carbonization sintering, etc.), as well as R&D, production, and manufacturing of end products for carbon-based materials (graphene, carbon fiber (including composites), etc.)
13. Advanced processing of non-ferrous metals such as aluminum, copper, and nickel
14. Production of high-tech non-ferrous metal materials and products: aluminum foil for lithium battery electrodes, electrolytic copper foil, high-performance copper-nickel alloys
15. Titanium alloy processing
16. Manufacturing of high-density, high-precision, complex-shaped powder metallurgy components and chains for automobiles, construction machinery, etc.
17. Manufacturing of high-end equipment such as petroleum drilling, extraction, refining, and chemical processing equipment
18. Manufacturing of complete vehicles and special-purpose vehicles (excluding standard semi-trailers, dump trucks, tank trucks, box trucks, and flatbed trucks) (subject to the "Regulations on the Administration of Automotive Industry Investment")
19. Production of stainless steel products
20. Development of high-performance aluminum alloy series products
21. Development and Application of Novel Short-Process Iron and Steel Smelting Technology
22. Lithium-ion Battery Development and Production

23. Integrated Circuit R&D, Packaging, and Testing
24. Production and R&D of CNC machine tools and metal-cutting machine tools
25. Manufacturing of self-lubricating bearings, various mechanical bearings, and components
26. Production of high, medium, and low voltage power transmission and distribution equipment
27. Automotive component manufacturing: 6-speed and above automatic transmissions, high-power-density drive axles for commercial vehicles, adaptive headlight systems, LED headlights, lightweight material applications (high-strength steel, aluminum-magnesium alloys, composite plastics, powder metallurgy, high-strength composite fibers, etc.), clutches, hydraulic shock absorbers, center console assemblies, seats
28. Solar and wind power generation and equipment manufacturing
29. New Distribution Industries: Commercial Chain Operations, Cross-Regional Agency Management, etc.
30. Animation creation, production, and derivative product development
31. Urban gas, thermal energy, and water supply/drainage pipeline network construction and operation
32. Sports venue construction, sports event operations (excluding esports), and sports fitness/leisure services
33. Wellness and leisure services, leisure tourism, and other leisure industries
34. Protection, development, and operation of tourist attractions (sites) and construction of supporting facilities

## Qinghai Province

1. Protection, cultivation, breeding, processing, and utilization of plateau flora and fauna resources
2. Cultivation and deep processing of goji berries, barley, etc.
3. Feed processing
4. Follow-up industrial development for national key ecological projects such as returning farmland to forests and grasslands, returning grazing land to grasslands, natural forest conservation, soil and water conservation, and comprehensive water ecosystem management
5. Water-saving irrigation and dryland water conservation technologies, conservation tillage techniques, facility agriculture technologies, and photovoltaic agriculture technology development and application
6. Establishment of organic natural agricultural and livestock product bases and deep processing of products
7. Design and production of specialty handicrafts, arts and crafts, and tourist souvenirs
8. Production of long-lasting, energy-efficient, environmentally friendly refractory materials
9. Advantageous non-metallic mineral products such as quartz and gypsum, and their deep-processed products (excluding exploration and mining)
10. Deep processing of non-ferrous metals such as copper, aluminum, and magnesium
11. Advanced processing of titanium metal

12. Refined processing of nickel metal
13. Research, development, and production of new metal alloy materials including aluminum-based, magnesium-based, titanium-based, lithium-based, and nickel-based alloys
14. Production of new varieties and dosage forms of Chinese and Tibetan medicines
15. Technology development and deep processing of specialty float glass (ultra-clear, ultra-thin, online Low-E, insulated, ultra-thick)
16. Production of engineering plastics such as polyacetal and polyphenylene sulfide
17. Downstream deep processing products of olefins
18. Resource utilization of industrial tailings, industrial production waste, and low-grade, complex, and difficult-to-process ores
19. Manufacturing of complete vehicles and special-purpose vehicles (excluding standard semi-trailers, dump trucks, tank trucks, box trucks, and flatbed trucks) (subject to the "Regulations on the Administration of Automotive Industry Investment")
20. Research, development, and manufacturing of upstream and downstream semiconductor lighting materials and related equipment
21. Manufacturing of solar and wind power generation equipment and components
22. Development and application of photovoltaic power generation system integration technology
23. Production of lithium battery products and R&D/manufacturing of specialized equipment
24. Broadband services and value-added telecommunications services (limited to telecommunications services opened under China's WTO accession commitments)
25. Highway passenger transportation companies
26. Construction and operation of water conservancy projects
27. Construction and operation of urban and rural gas, heating, and water supply/drainage pipeline networks
28. New distribution industries such as commercial chain operations and cross-regional agency operations
29. Construction of sports venues and facilities, operation of sporting events (excluding e-sports), and sports fitness and leisure services
30. Conservation-oriented development and operation of ecotourism resources and construction of supporting facilities

### **Ningxia Hui Autonomous Region**

1. Potato seed production
2. Breeding and production of melon, fruit, vegetable, and flower seeds
3. Follow-up industrial development for national key ecological projects such as returning farmland to

forests and grasslands, returning grazing land to grasslands, and natural forest conservation

4. Development and application of water-saving irrigation, dryland water-saving techniques, and conservation tillage technologies
5. Cultivation and deep processing of goji berries, grapes, potatoes, minor grains, and other crops
6. Desert medicinal herbs, desert ecological economic forests, desert melons and fruits, desert facility agriculture, sand-based building materials, desert

New energy and desert tourism industries

7. Feed processing
8. Deep processing of high-end dairy products such as milk protein and casein
9. High-end textile, knitting, and apparel processing of cotton, wool, hemp, silk, and synthetic fibers, along with R&D and testing of related products
10. Creative design and production of tourism crafts
11. Development and production of high-performance silicone oils, silicone rubbers, resins, high-quality fluororesins, high-performance fluororubbers, fluorinated specialty chemicals, and high-quality fluorinated inorganic salts
12. Development and production of carbon-based materials and carbon fibers
13. Spandex fiber manufacturing
14. Advanced processing of rare metal materials such as tantalum and niobium
15. Research, development, and production of new materials including aluminum alloys, magnesium alloys, silicon, and manganese alloys
16. Development and production of green electrode paste and cold-paddle paste
17. Manufacturing of battery and electronic specialty materials
18. Manufacturing of liquid crystal display materials and organic electroluminescent display materials
19. Production of high-performance radial tires: all-steel radial tires, tubeless radial truck tires, low-profile and flat tires (below 55 series), large-rim high-performance passenger radial tires (15 inches and above), aviation tires, and agricultural radial tires
20. Manufacturing of complete motor vehicles and special-purpose vehicles (excluding standard semi-trailers, dump trucks, tank trucks, box trucks, and flatbed trucks) (subject to the "Regulations on the Administration of Investment in the Automobile Industry")
21. High-speed, precision CNC machine tools with three or more coordinated axes, along with supporting CNC systems, servo motors and drive units, functional components, cutting tools, measuring tools, measuring instruments, and high-end abrasives production
22. Mining equipment for mines with an annual capacity of 5 million tons or more and comprehensive mining equipment for thin coal seams; key equipment for large-scale open-pit mines with an annual capacity of 10 million tons or more
23. Research, development, and production of intelligent goji berry harvesting machinery
24. Solar power generation systems, wind farm construction and operation
25. Technology development for automated control, intelligent instruments, gauges, and valves in special environments
26. Broadband services and value-added telecommunications services (limited to telecommunications services opened under China's WTO accession commitments)
27. Road passenger transportation companies

28. International multimodal freight transport, road-rail-sea multimodal transport, international road freight transport, and international logistics supply chain management
29. Higher education institutions
30. Travel agencies
31. Construction and operation of urban gas, heating, and water supply/drainage pipeline networks
32. Wellness and leisure services, tourism and leisure resorts, and other leisure industries
33. Protection, Development, and Operation of Tourist Attractions (Sites) and Construction of Supporting Facilities

### Xinjiang Uygur Autonomous Region (including Xinjiang Production and Construction Corps)

1. Modern Standardized Beef Cattle and Sheep Breeding
2. Development and operation of leisure agriculture and construction of supporting facilities
3. Follow-up industrial development for national key ecological projects such as returning farmland to forests and grasslands, returning grazing land to grasslands, and natural forest conservation
4. Development and application of water-saving irrigation and dryland water-saving technologies, conservation tillage techniques, facility agriculture, and organic agriculture
5. Cultivation and deep processing of high-quality specialty agricultural products such as premium tomatoes, sugar beets, fragrant pears, grapes, watermelons and cantaloupes, red dates, walnuts, apricots, pomegranates, chili peppers, and goji berries
6. Processing of grape by-products (grape leaves, grape seeds, etc.)
7. Establishment of premium wine grape bases (supply bases for grape must and grape distillates) and production of wines (dry wines, ice wines, traditional Muscat wines)
8. Production of high-end nutritional formulas, premium industrial milk powder, cheese, casein, cream, condensed milk, yogurt, and other solid/semi-solid dairy products
9. Feed processing
10. Cultivation of flax, sea buckthorn, lavender, and roses, and production of their derived products
11. Manufacturing of textile and apparel accessories and components
12. High-end textile, knitting, and apparel processing of cotton, wool, hemp, silk, and synthetic fibers; R&D and testing of related products
13. Development and production of footwear, hats, toys, wigs, luggage, and leather goods
14. Comprehensive utilization of non-metallic minerals including marble, Dongling jade, vermiculite, mica, asbestos, magnesite, limestone, and staurolite (excluding exploration and development)

15. High-end applications and deep processing of graphite
16. Development of coal processing and application technologies
17. Comprehensive utilization of oil and gas associated resources
18. Recovery and utilization of vented natural gas
19. Cultivation, processing, and new pharmaceutical manufacturing techniques for specialty medicinal plants
20. Production of Ethnic-Specific Goods, Arts and Crafts, Packaging Materials, Daily-Use Glassware, Handmade Carpets, Jade Carvings, Ethnic Embroidery, and Other Unique Handicrafts and Tourist Souvenirs
21. Production and Processing of New Medical Devices and Materials
22. Development and deep processing of specialty float glass (ultra-clear, ultra-thin, online Low-E, insulated, ultra-thick)
23. Research, development, and production of aluminum-based, silicon-based, and polymer-based new materials
24. Deep processing of non-ferrous metals such as copper, zinc, and aluminum
25. Manufacturing of agricultural by-product processing equipment
26. Production of intelligent modern agricultural equipment and supporting farm implements
27. Manufacturing of specialized shearing machinery, including: flexible shaft shears, rigid shaft shears, electric shears, and supporting shearing blades and components
28. Assembly of electronic products including electronic components, mobile phones, smart wearables, and computer peripherals
29. Manufacturing of environmental protection equipment and application of related solutions
30. Manufacturing of complete vehicles and special-purpose vehicles (excluding standard semi-trailers, dump trucks, tank trucks, box trucks, and flatbed trucks) (subject to the "Regulations on the Administration of Automotive Industry Investment")
31. Development and production of specialized equipment for processing coarse grains
32. Manufacturing of solar and wind power generation equipment and components
33. Manufacturing of special equipment for petroleum and mining
34. Smart grid equipment and electrical integrated control system equipment manufacturing
35. Manufacturing of small-scale snow removal equipment
36. Comprehensive utilization of solid waste from steel metallurgy, desulfurization gypsum, coal fly ash, calcium carbide slag, and related products; manufacturing of complete sewage purification treatment equipment
37. Comprehensive utilization of chemical raw material waste gas, waste liquid, and waste residue
38. Broadband services and value-added telecommunications services (limited to telecommunications services opened under China's WTO accession commitments)

39. Highway passenger transportation companies
40. New Distribution Industries Including Commercial Chain Operations and Cross-Regional Agency Management
41. Machinery and equipment leasing
42. Construction and operation of urban gas, heating, and water supply/drainage pipeline networks
43. Travel agencies
44. Health and medical tourism development
45. Protection, development, and operation of tourist attractions (sites) and construction of supporting facilities
46. Production of winter sports and tourism equipment
47. Desert tourism, desert wellness, desert ecological agriculture, sand-based building materials, and other desert economy industries