



Catalogue of Industries for Encouraging Foreign Investment (2022 Version)

Order of the National Development and Reform Commission and the Ministry of Commerce of the People's Republic of China (No. 52)

Status: effective

The Catalogue of Industries for Encouraging Foreign Investment (2022 Version), as deliberated and adopted at the 22nd executive meeting of the National Development and Reform Commission on July 29, 2022 and reviewed and signed by the Ministry of Commerce, and with the approval of the State Council, is hereby issued and shall come into force on January 1, 2023.

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This Catalogue is developed for the purposes of implementing the Foreign Investment Law and the regulation on its implementation, and encouraging and directing foreign investors to invest in particular industries, fields, and regions as needed for national economic and social development. This Catalogue consists of two parts, one is the Catalogue of Industries for Encouraging Foreign Investment Nationwide, and the other is the Catalogue of Priority Industries for Foreign Investment in Central and Western China.

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issued by the National Development and Reform Commission and the Ministry of Commerce on December 27, 2020 shall be repealed from January 1, 2023.

Catalogue of Industries for Encouraging Foreign Investment

I. Agriculture, Forestry, Animal Husbandry, and Fishery

1. Planting, development, and production of woody plants that contain edible oils or are used as seasonings or industrial raw materials
2. Development of cultivation technologies, planting and production of green and organic vegetables (including edible fungi and watermelon and melon), fresh fruits and nuts, and tea



3. Breeding, planting, and production of wine grapes
4. Breeding, planting, and production of raw materials of beer
5. Development of new cultivation techniques and production of crops, such as sugar crops, fruit trees, and pasture
6. Breeding and development of new varieties of plants specially used for silage in high yield and high efficiency
7. Production of flowers, and construction and operation of nurseries
8. Planting of rubber trees, oil palms, sisal, and coffee trees
9. Breeding and planting of aromatic plants, and extraction of essential oils
10. Planting and cultivation of traditional Chinese medicinal crops
11. Comprehensive utilization of crop straw resources, and development and production of organic fertilizer resources
12. Cultivation of forest resources (fast-growing and high-yield timber forests, large-diameter timber forests, bamboo forests, tea-oil trees, and other economic forests, timber forests comprising rare tree species, etc.)
13. Undergrowth ecological planting
14. Development and application of technologies for standardized large-scale breeding of livestock and poultry and intelligent breeding technology
15. Breeding of breeding livestock and poultry and aquatic offspring (excluding China's rare and endemic species)
16. Construction and operation of ecology and environment protection projects, such as preventing and controlling desertification, soil and water conservation, and land greening
17. Aqua farming, open ocean cage aquaculture, industrial aquaculture, and ecological mariculture
18. High-efficiency water-saving irrigation, farmland soil improvement and ecological management, comprehensive utilization of cultivated land reserve resources such as saline-alkali land, and green farmland construction and technology development and application; and construction of projects related to rural environment improvement, treatment of rural domestic sewage and garbage, and improvement and restoration of water ecology and environment, as well as technology development and application
19. Construction of cold chain logistics facilities for the storage and preservation of agricultural products



20. Intelligent agriculture (integrated application of software technology and equipment, and digital transformation of agricultural production, operation, and management)
21. Rural e-commerce and new rural service industries, including agricultural production services adapted to large-scale, standardized, and mechanized agricultural production, and rural life services
22. Leisure agriculture and rural tourism, construction of practice bases for leisure and sightseeing, farming experience, outdoor activity development, ecological health care and wellness, and labor education
23. Development and production of safe, efficient, and environment-friendly feeds and feed additives (including vitamins, methionine, and feed enzymes) and substitute products of antibacterial agents used for promoting animal growth

II. Mining Industry

24. Exploration and exploitation of oil and natural gas (including shale gas and coalbed methane) and utilization of mine gas
25. Development and application of enhanced oil recovery (in the form of project services) and relevant new technologies
26. Development and application of new technologies for oil exploration and exploitation in areas such as geophysical prospecting, drilling, well logging, mud logging, and downhole operation
27. Development and application of new technologies for enhancing the utilization rate of mine tailings and comprehensive application of ecological restoration technologies in mining areas
28. Exploration, mining, and ore dressing of minerals in acute shortage in China (such as leopoldite and chromite)

III. Manufacturing Industry

(I) Agricultural and Sideline Food Processing

29. Development and production of pet feeds and food
30. Processing of aquatic products, purification and processing of shellfish, and development of seaweed health food



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

(II) Food Manufacturing

32. Development and production of high-temperature sterilized milk (sterilized at 132°C for a very short time)

33. Production of cheese, processed cheese, and cheese-prepared food

34. Development and production of formula food for infants, complementary foods for infants, formula food for special medical purposes, and health food

35. Development and production of baked food (including the chocolates containing natural cocoa beans and their products), convenience food, ice cream, and related ingredients

36. Production of candy, chewing gum, reserved fruit, and yogurt

37. Processing of forest food

38. Development and production of vegetable protein bionic meat food

39. Development of new technologies for and production of natural food additives and natural spices

40. Development and production of packaging materials for sterile liquid food

(III) Alcohol, Beverage, and Refined Tea Manufacturing

41. Development and production of fruit and vegetable juice and other drinks, protein drinks, tea drinks, coffee drinks, and botanical drinks

(IV) Textile Industry

42. Production of functional industrial textiles by using non-woven, machine weaving, knitting, weaving, 3D weaving, and other techniques, composition of multiple techniques, long-term finishing, and other new technologies

43. Production of high-end textile fabrics by adopting digital and intelligent printing and dyeing technical equipment, dyeing and finishing cleaner production technology (enzyme treatment, high-efficiency short-process pretreatment, continuous open-width pretreatment of knitted fabrics, low-



temperature pretreatment and dyeing, low-salt or salt-free dyeing, low-urea printing, small bath ratio airflow or gas-liquid dyeing, digital inkjet printing, foam finishing, etc.), functional finishing technology, new dyeing processing technology, composite fabric processing technology; and development and application of intelligent cheese dyeing technical equipment

44. Processing technology and product production of special animal fiber, hemp fiber, mulberry tussah silk, color cotton, and color mulberry cocoon silk natural fibers that satisfy environmental protection requirements

45. Sorting, recycling, and utilization of waste textiles

46. Production, research, and development of textiles for therapeutic medical treatment and public health, artificial skin, absorbable sutures, hernia repair materials, new dialysis membrane materials, catheters for interventional therapy, high-end functional biomedical dressings, etc.

(V) Textile Garment and Apparel Industry

47. Production of high count cotton yarn

48. Clothing and semi-finished clothing production using the computer integrated manufacturing system

49. Production of functional and special clothing

(VI) Leathers, Furs, Feathers and Related Products and Shoemaking Industry

50. Cleaning technical processing of leathers and furs

51. Post ornament and processing of leather with new technology

52. Comprehensive use of leather wastes

53. Production of high-performance elastomer shoe materials

(VII) Wood Processing and Wood, Bamboo, Rattan, Palm Fiber, and Straw Products

54. Development of new technologies for the comprehensive utilization of three forest residues, inferior quality lumber, small-sized lumber and firewood, waste wood and bamboo, development and production of relevant new products, development and application of the technology for



pollution control and prevention in wood and bamboo production, fine particle emission reduction and dust explosion prevention

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

56. Development and production of new technologies and new products for the recycling of waste wood

(VIII) Manufacturing of Educational and Cultural Products, Arts and Crafts, and Sports and Entertainment Products

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

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

58. Processing of phenol oil, processing of absorber oil, processing of anthracene oil, processing of naphthalene oil, and preparation of high-end chemicals from coal pitch (excluding modified pitch)

(X) Manufacturing of Chemical Materials and Chemical Products

59. Development and production of new downstream products of polyvinyl chloride (PVC) and organosilicon

60. Auxiliary raw materials for the production of synthetic materials: production of hydrogen peroxide-based propylene oxide, hydrogen peroxide-based epichlorohydrin, naphthalene dicarboxylate (NDC), 1,4-Cyclohexanedimethanol (CHDM), and butadiene-based adiponitrile, hexanediamine and norbornene of 50,000 tons or more per year

61. Production of polyethylene polyamine products

62. Development and production of high-end polyolefin such as high-carbon α -olefin copolymerized metallocene polyethylene and COC/COP cyclic olefin polymer

63. Production of raw materials of synthetic fibers: 1,3-propylene glycol

64. Production of synthetic rubber: acrylate rubber, epichlorohydrin rubber, special fluorine rubber, silicone rubber, fluorosilicone rubber, thermoplastic polyurethane rubber, and other special rubbers



65. Production of engineering plastics and plastic alloys: polyphenyl thioether, polyether ether ketone, polyimide, polysulfone, polyether sulfone, polyarylate (PAR), polyphenylene ether (PPE), special polyamide (PA) and its modified materials, liquid crystal polymer, and other products
66. Fine chemicals: new catalyst products and technologies; processing technologies for the commercialization of dyes (pigments); electronic chemicals and papermaking chemicals; leather chemicals; oilfield chemicals; surfactants; safe production technology of nitrogen-protected double-shell tower for refining ethylene oxide from key raw materials; production of water treatment agents and key raw materials; production of high-solid, solvent-free, water-based, electron beam curing, UV curing, reactive adhesives, and key raw materials including high-end butyl acrylate and high-end octyl acrylate, polyester polyol and curing agents; production of sealant, adhesive tapes and key raw materials and production of efficient, safe and environment-friendly plasticizers (such as polyester plasticizers), new plastic additives such as halogen-free flame retardants, permanent antistatic agents, organic heat stabilizers and nucleating agents; production of inorganic fibers and inorganic nano materials; deep processing of pigment encapsulation; development and production of environment-friendly surface treatment technology products; and development and production of humic acid fine chemical products
67. Production of water-based inks and adhesives, electron beam curing inks, ultraviolet-curing inks, and other low-volatile inks, adhesives, environment-friendly organic solvent materials, and environment-friendly organic solvent-free materials
68. Production of natural spices, synthetic spices, single ion spices and citral, the intermediate of spice component
69. Production of high-performance coatings, adhesives, industrial coatings, high solids coatings, water-based, powder, radiation curing, solvent-free, and other low VOC content industrial coatings and supporting resins, water-based industrial coatings and auxiliary water-based resins (including high-end butyl acrylate and high-end octyl acrylate)
70. Production of high-performance fluororesin, fluorine coating materials, medical intermediates containing fluorine, zero ODP and low GWP refrigerants in compliance with international conventions, cleaning agents, blowing agents, etc.
71. Development of green technologies for the production of hydrogen fuel (hydrogen production from chemical by-products, biological hydrogen production, water-electrolytic hydrogen production from renewable energy, etc.) and storage, transportation, and liquefaction of hydrogen fuel

72. Production and supply of large, high-pressure, and high-purity industrial gas (including electronic gas)
73. Construction and operation of carbon capture, utilization and storage (CCUS) projects
74. Production of fluoride resources recovered from the phosphorus chemical industry and aluminum smelters
75. Development of new technologies for forestry chemical products and development and production of relevant new products
76. Development and production of inorganic, organic, and biological membranes for environmental protection purposes
77. Development and production of new types of fertilizers: high potassium fertilizers, compound microbial inoculants, compound microbial fertilizers, decomposition agents for straws and refuse, microbial preparations with special functions, and humic acid fertilizers
78. Development and production of new varieties, new formulations, special-purpose intermediates, or auxiliary agents of efficient, safe, and environment-friendly agricultural chemicals, and development and application of relevant cleaner production process, and production of chiral and stereospecific pesticides by oriented synthesis
79. Development and production of biological agricultural chemicals and biological control products: microbial pesticides, microbial fungicides, agricultural antibiotics, biostimulants, insect pheromones, natural enemies, and microbial herbicides
80. Comprehensive utilization, treatment, and disposal of waste gas, waste liquid, and waste residue
81. Production of organic polymer materials: aircraft skin coating, rare earth cerium sulphide red dyes, lead-free electronic packaging materials, lithographic slurry specifically for color plasma screens, microfibers with a small diameter and a large specific surface area, high-precision fuel filter paper, surface treatment self-healing materials, superhydrophobic nano-coating materials, ultra-high refractive index optical resins, co-extruded backsheets for environment-friendly recyclable solar modules and plastic materials for backsheets, automotive start-stop lead-acid battery separators, and energy storage lead-acid battery separators
82. Development, production, and application of new technologies and new products of forestry biomass energy
83. Development of low-carbon upgrading processes for petrochemical and chemical raw materials:

electrically-driven ethylene cracking; reverse water-gas shift and partial oxidation process to convert carbon dioxide and light hydrocarbons as raw materials into carbon monoxide

(XI) Pharmaceutical Industry

84. Production of new compound drugs or drugs with active ingredients (including drug substances and formulations)
85. Amino acids: production of tryptophan by using the zymotechnics process, histidine, methionine, etc.
86. Development and production of new anticarcinogenic drugs, cardiovascular and cerebrovascular drugs, and nervous system drugs
87. Production of new types of drugs employing bioengineering and biotechnology
88. Production of HIV/AIDS vaccines, Hepatitis C vaccines, contraceptive vaccines, and new vaccines for cervical carcinoma, malaria, “hand, foot and mouth” disease, etc.
89. Development and production of marine drugs
90. Production of pharmaceutical formulations: new formulations and new products employing new technologies, such as slow release, controlled release, targeting, and percutaneous absorption
91. Development and production of new excipients
92. Production of special antibacterial drug substances for animals (including antibiotics and chemically synthesized active pharmaceutical ingredients)
93. Production of new products and new formulations of antibacterial drugs, anthelmintics, insecticides, and anti-coccidiosis drugs for veterinary use
94. Development and production of new types of diagnostic reagents
95. Research, development, and production of cell therapy drugs (except in areas where foreign investment is prohibited)
96. Development and production of new key raw materials for production, such as vaccines and cell therapy drugs and large-scale cell culture products
97. Development and production of new-type drug packaging materials and technologies (neutral borosilicate pharmaceutical glass, degradable, light-resistant, and high-barrier functional materials with good chemical stability, COP cyclic olefin polymer drug packing materials, and drug delivery systems and devices with new packaging such as aerosol, powder inhalation, self-dosing, pre-

filling, and automatic mixing)

98. Development and production of drugs for rare diseases and special drugs for children

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

(XII) Chemical Fiber Manufacturing

100. Continuous copolymerization modification of differentiated and 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, and polyester produced with green catalyst, etc.]; efficient and flexible preparation technologies for the production of flame-retardant, anti-static, anti-ultraviolet, anti-bacterial, phase change energy storage, photochromic, stock solution coloring, and other differentiated and functional chemical fibers and their research and development; production of intelligent, ultra-simulation, and other functional chemical fibers; and original development of green, efficient and environment-friendly oil for high-speed spinning processing

101. Development and production of high-performance fibers and products: carbon fiber (CF), aramid fiber (AF), polysulfonamide (PSA), ultra-high molecular weight polyethylene (UHMWPE), polyphenylene sulfite fiber (PPS), polyimide fiber (PI), polytetrafluoroethylene fiber (PTFE), polybenzobisoxazole fiber (PBO), polyarylene oxadiazole fiber (POD), basalt fiber (BF), silicon carbide fiber (SiCF), polyetheretherketone fiber (PEEK), high-tenacity alkali-resisting glass fiber (HT-AR), and poly (2,5-dihydroxy-1,4-phenylenepyridodiimidazole) (PIPD) fiber

102. Production of new types of polyester for fiber or non-fiber use: polytrimethylene terephthalate (PTT), polyethylene naphthalene (PEN), polycyclohexylene dimethylene terephthalate (PCT), glycol-modified polyethylene terephthalate (PETG), and polylactic acid (PLA, using non-grain biomass as raw materials)

103. Production of biomass fibers by utilizing new types of renewable resources and environment-friendly process, including new solvent spun cellulose fibers (Lyocell), regenerated cellulose fibers using bamboo, hemp, etc. as the raw material, poly lactic acid (PLA) fibers, chitin fiber, polyhydroxyalkanoates (PHA) fibers, animal and plant protein fibers, polybutylene succinate



(PBS), etc.

104. Development and production of nylon 11, nylon 12, nylon 1414, nylon 46, nylon 56 (using non-grain biomass as raw materials), long carbon chain nylon, high-temperature resistance nylon, and other new polyamides, and differentiated, functional and high value-added modified nylon (including nylon elastomer, copolymer nylon, nylon engineering plastics, and flame-retardant nylon)

105. Development and production of anti-seepage geomembrane in landfills

(XIII) Rubber and Plastic Products Industry

106. Development, production, and application of organosilicone products

107. Development, production, and application of biodegradable plastics and their products

108. Development and production of new photoecological, multifunctional, and wide-width agricultural film and pollution-free degradable agricultural film

109. Sorting, recycling, and reuse of plastic wastes

110. Development of new soft plastic packaging technologies, and development and production of new varieties of soft plastic packaging products (including high-barrier and multifunctional film, and relevant raw materials)

(XIV) Nonmetallic Mineral Products Industry

111. Development and production of building materials characterized by energy conservation, environmental protection, waste recycling, light-weight, high-strength, high performance, and multiple functions

112. Development and production of integrated molding and die extrusion products

113. Production of energy-saving and high-efficiency chemical building materials using plastic to substitute for steel and wood

114. Intelligent manufacturing of new fabricated building components

115. Production of SBS/APP modified bitumen waterproof rolls with an annual output of 10 million square meters or more, ethylene propylene diene monomer (EPDM) rubber waterproof rolls of which the width is two meters or longer, and relevant auxiliary materials, wide polyvinyl chloride



(PVC) waterproof rolls of which the width is two meters or longer, and thermoplastic polyolefin (TPO) waterproof rolls

116. Development and production of functional glass using new technologies: infrared transmitting lead-free chalcogenide glass and products, multiple-functional windshield glass with excellent optical performance (transmittance \geq 70%), coated privacy windshield glass, sound insulation windshield glass, solar windshield glass, conductive color-changing windshield glass, electric heating windshield glass, head-up display windshield glass, vacuum glass, purification processing of raw materials for high pure (\geq 99.998%) or ultrapure (\geq 99.999%) crystals

117. Production of power generation glass for thin film batteries, glass for solar illuminators, and photovoltaic power generation glass used in construction

118. Production of alkali-free glass fiber roving (monofilament diameter $>$ 9 microns) by tank furnace wire drawing with an annual yield of 80,000 tons or more, and production of alkali-free glass fiber spun yarn (monofilament diameter \leq 9 microns) by tank furnace wire drawing with an annual yield of 50,000 tons or more, production of high-performance and special glass fibers such as superfine glass fiber (monofilament diameter \leq 5 microns), degradable glass fiber, special-shaped cross-section glass fiber, alkali-resistant glass fiber, low dielectric glass fibers, quartz glass fibers, high silica glass fibers, high strength, and high elastic glass fibers, ceramic fibers, glass fiber felt, cloth, and other products

119. Production of optical fibers and their products: optical fiber bundles for image transmission and laser optical fibers for medical treatment, super second-generation and third-generation microchannel plates, optical fiber panels, image inverters, and glass fiber cones

120. Standardized refinement of ceramics raw materials and production of high-grade decorative materials used in ceramics

121. Production of long-life, energy-saving, and environment-friendly (non-chromizing) refractory materials used in furnaces, including cement, electronic glass, ceramics, and microporous carbon bricks

122. Production of porous ceramics

123. Production of new inorganic and nonmetallic materials and products: composite materials, special ceramics, special sealing materials (including high-speed oil-seal materials), special friction materials (including high-speed friction brake products), special binding materials, special latex materials, underwater acoustic rubber products, and nanophase materials



124. Production of organic-inorganic composite cellular insulation materials, production of high-performance energy-saving insulation materials for buildings, and insulation materials for the modern centralized agricultural breeding industry

125. Production of high-tech composite materials: continuous fiber reinforced thermoplastic composite materials and prepregs, auxiliary materials for molding of resin-based composite materials with thermal resistance of more than 300°C, biodegradable resin matrix composite materials, resin-based composite materials used for additive manufacturing, resin-based composite materials (including sports products and light-weight, high-strength parts of vehicles), special-function composite materials and their products (including composite material products used in deep water or for diving and composite materials products for medical treatment and recuperation), carbon or carbon composite materials, high-performance ceramic-based composite materials and their products, metal or glass-based composite materials and their products, metal-layered composite materials and their products, ultra high pressure composite rubber hoses (pressure \geq 320MPa), large passenger aircraft tires, and polyester structural foam materials (used in lightweight and high-strength vehicle parts, core materials of wind turbine blade, building materials, and other fields)

126. Production of raw materials for precision and high-performance ceramics: ultra-fine silicon carbide (SiC) powder (purity $>$ 99%, average particle size $<$ 1 μ m), ultra-fine silicon nitride powder (purity $>$ 99%, average particle size $<$ 1 μ m), high-purity ultra-fine alumina powder (purity $>$ 99.9%, average particle size $<$ 0.5 μ m), low-temperature sintered zirconia (zro₂) powder (sintering $>$ 1350°C), high-purity aluminium nitride powder (purity $>$ 99%, average particle size $<$ 1 μ m), rutile titanium dioxide powder (purity $>$ 98.5%), white carbon black (particle size $<$ 100nm), and barium titanate (purity $>$ 99%, particle size $<$)

127. Development and production of high-quality artificial crystals and thin-film transistor products: high-quality artificially synthesized crystal (piezoelectric crystal and ultraviolet ray transmitting crystal); super-hard crystal (cubic boron nitride crystal); high-temperature resistant, highly-insulated, and artificially synthesized crystal (artificially synthesized mica); new electro-optic crystal; high-power laser crystal and large-scale scintillation crystal; diamond-film tool; ultrathin synthetic diamond saw blade with the thickness of not more than 0.3mm

128. Fine processing of nonmetallic ores (ultra-fine grinding, high purifying, refining, and modified



performance)

129. Production of ultra-high-power graphite electrodes
130. Production of pearl mica (particle size of 3-150 μ m)
131. Production of multi-dimensional and multi-directional integral fabrics and shape fabrics
132. Safe disposal of solid wastes using new dry process cement kilns and sintered wall materials
133. Recycling of building wastes
134. Comprehensive utilization of industrial by-product gypsum and other industrial waste
135. Development and application of new technologies for comprehensive utilization of nonmetal mine tailings; and ecological restoration of mines
136. Development and production of high-temperature resistant and corrosion-resistant filter materials

(XV) Nonferrous Metal Smelting and Rolling Processing

137. Production of new and high-tech nonferrous metal materials and their products: high-temperature superconducting materials; memory alloy materials (titanium nickel, copper-based and iron-based memory alloy materials); ultra-fine (nano) calcium carbide and ultra-fine (nano) crystal hard alloy; ultra-hard composite materials; precious metal composite materials; light metal composite materials; deep processing of high-performance light metals and copper alloy materials for new generation information technology industry, aerospace equipment, electric power equipment, advanced rail transit equipment, biomedicine and high-performance medical equipment, ocean engineering equipment and high-tech ships, energy-saving and new energy vehicles, high-end numerical control machines and robots, agricultural machinery equipment, energy conservation and environmental protection; foamed aluminum; sponge zirconium at the atomic energy level, and deep processing products of tungsten and molybdenum
138. Processing of rare earth high-end application products in line with the requirements of new rare earth materials
139. Production of high-performance AlTiB grain refiner

(XVI) Metal Products Manufacturing Industry



140. Research, development, and manufacturing of new light-weight and environment-friendly materials for aviation, aerospace, vessels, automobiles, and motorcycles (special-purpose aluminum sheets, aluminum-magnesium alloy materials, aluminum alloy motorcycle frames, etc.)

141. Manufacturing and processing (including painting and processing inner and outer surface of products) of metal packing products (which shall be complete products, and the thickness of container wall shall be less than 0.3 millimeter) used for packing all kinds of grain, oil, food, vegetables, fruits, beverages, and household chemical products, etc.

142. Manufacturing of steel fiber for construction

(XVII) General Equipment Manufacturing Industry

143. Manufacturing of high-end numerical control machines and their key parts and components: five-axis alignment numerical control machines, numerical control coordinate boring and milling processing centers, and numerical control coordinate grinding machines

144. Manufacturing of large-scale (loading capacity of more than one ton) multi-function controllable atmosphere heat treatment equipment, program-controlled chemical heat treatment equipment, program-controlled multi-function vacuum heat treatment equipment, vacuum heat treatment equipment with a charging capacity of over 500kg and full-fiber lining heat treatment heating furnaces

145. Manufacturing of equipment for dismantling, crushing, and post-processing and sorting of retired automobiles

146. Manufacturing of flexible transfer lines (FTL)

147. Manufacturing of high-end precision tools, nano composite coating and high-end processing equipment

148. Manufacturing of sub-micron and ultra-fine grinders

149. Manufacturing of wheeled or crawler cranes of 400 tons or more

150. Design and manufacturing of high-pressure plunger pumps and engines of working pressure ≥ 35 MPa and low-speed large-torque engines of working pressure ≥ 35 MPa

151. Manufacturing of integrated hydraulic-pressure multiple unit valve of working pressure ≥ 25 MPa and electro-hydraulic proportional servo elements

152. Design and manufacturing of valve terminal, pneumatic solenoid valve of less than 0.35W, and



high-frequency electrically-controlled gas valves of 200Hz or more

153. Production of valves of which the operating temperature is below -120°C or above 530°C

154. Design and manufacturing of hydrostatic drive devices

155. Development and manufacturing of non-contact gas film seals of pressure $>10\text{MPa}$ and dry gas seals of pressure $>10\text{MPa}$ (including experimental devices)

156. Design and manufacturing of pneumatic actuators with repeatability less than or equal to 0.03 degrees and axial runout less than or equal to 0.02mm

157. Manufacturing of noise and vibration pollution control equipment: sound barriers, mufflers, and damping spring vibration isolators

158. Development and manufacturing of macromolecule material equipment for automobiles (including friction plates, remodeled phenolic pistons, nonmetallic hydraulic master/sub-pumps, etc.)

159. Manufacturing of second-generation wheel hub bearings (THU2) for commercial vehicles, third- and higher-generation car wheel hub bearings, bearings for high- or medium-grade numerical control machines and processing centers, high-speed wire rod or plate rolling mill bearings, high-speed railway bearings, low-noise bearings with vibration below Z4, P4 or P2 level bearings of various bearings, bearings of wind turbine generator set, aircraft bearings, aircraft engine bearings, and other aviation bearings, medical CT machine bearings, deep well and ultra-deep well oil rig bearings, offshore engineering bearings, high-speed bearings for electric vehicle drive motor systems (rotation speed $\geq 12,000$ rpm), bearings of RV reducers and harmonic drive reducers for industrial robots, bearings for shield machines, machining numerical control machines, and heat treatment equipment for large bearings

160. Manufacturing of gear transmission used for wind power or high-speed rail, gear transmission agent with adjustable blades used for vessels, and large-sized and heavy-load gear boxes

161. Manufacturing of high-temperature resistant insulation materials (of F and H insulation classes) and molded insulation products

162. Development and manufacturing of accumulator bladders, and rubber and plastic seals for hydropneumatic use

163. Manufacturing of high-precision, high-strength (at the level of 12.9 or above), special-shaped, and assembly fasteners

164. Manufacturing of miniature precision transmission junction pieces (clutches)



165. Manufacturing of coupling shaft for heavy rolling mills
166. Remanufacturing of machinery such as machine tools, engineering machinery, and railroad engine equipment, remanufacturing of automobile parts and components
167. Development and manufacturing of digital cameras of 10 million pixels or more or with the 120-degree or above horizontal field, and their optical lens and photoelectric modules
168. Manufacturing of office machinery (including that for industrial use): all-in-one multifunctional office equipment (printer, copier, fax machine, and scanner), printing devices, heads of high-resolution color printers with the precision of 2,400dpi or more, and OPC drums
169. Manufacturing of film machinery: 2K, 4K digital cinema projectors, digital cinema cameras, and digital video production and editing equipment
170. Construction of facilities and manufacturing of equipment for receiving and disposing of ship pollutants at ports, construction of port hazardous chemicals and oil emergency facilities and equipment manufacturing
171. Development and application of industrial water-saving processes and technologies and manufacturing of relevant equipment

(XVIII) Special-Purpose Equipment Manufacturing Industry

172. Manufacturing of trackless equipment for mining, loading, and transport in mines: including electric-wheel mining tippers with the capacity of 200 tons or more; mobile crushers; bucket wheel excavators with the capacity of 5,000 cubic meters per hour or more; loaders for mining purposes with the capacity of eight cubic meters or more; and electrically-dragged coal mining machines of 2,500 kilowatts or more, etc.
173. Manufacturing of equipment for geophysical exploration (excluding gravity and magnetic observations) and well logging: MEME seismometers; digital telemetric seismographs; digital imaging systems and digitally controlled well logging systems; devices and apparatus for horizontal wells, directional wells, and drilling rigs; and measurement while drilling (MWD) tools
174. Manufacturing of equipment for oil exploration, drilling, collection, and transportation: floating drilling systems and floating production systems with an operating water depth of more than 1,500 meters and supporting subsea oil extraction, collection and transportation equipment
175. Manufacturing of large-caliber rotary drilling rigs with a caliber of two meters or more and



- depth of 30 meters or more, push benches with a diameter of 1.2 meters or more, complete sets of large equipment with a pull-back force of 300 tons or more for laying underground pipes and lines without digging, and underground diaphragm wall construction drilling rigs
176. Design and manufacturing of large bulldozers of 520 horsepower or more
177. Design and manufacturing of silt removers with the capacity of 100 cubic meters or more per hour, and dredging devices for dredgers with the capacity of 1,000 tons or more
178. Design and manufacturing of equipment for the construction of concrete cut-off walls used for flood prevention dikes
179. Manufacturing of earthquake prevention and disaster mitigation devices of civil engineering structure
180. Manufacturing of underwater earthwork construction machinery: bulldozers, loaders, excavators, etc. operating nine meters underwater or deeper
181. Manufacturing of equipment for the maintenance and automatic testing of highways and bridges
182. Manufacturing of equipment for operational monitoring, ventilation, disaster prevention and rescue systems of highway tunnels
183. Design and manufacturing of maintenance machinery and inspection and monitoring equipment for large-scale railway construction, railway tracks, bridges, and tunnels, and their key parts and components
184. Manufacturing of ore dressing equipment for multi-element, fine-particle, and refractory metal minerals
185. Manufacturing of the key equipment of complete sets of ethylene equipment with the annual capacity of one million tons or more: mixing granulators with the annual processing capacity of 400,000 tons or more, helical-conveyer centrifuges with a diameter of 1,000 millimeters or more, and low-flow high-head centrifugal pump
186. Design and manufacturing of metal product molds (extrusion dies for pipes, rods, and section bars made of copper, aluminum, titanium, and zirconium)
187. Design and manufacturing of punching dies for automobile body covers, large-sized injection molds for dashboard, bumper, etc., and clamps and gauges for automobiles and motorcycles
188. Design and manufacturing of production equipment for power batteries for automobiles
189. Design and manufacturing of precise die molds (punching dies with a precision of higher than



0.02 millimeter and cavity molds with a precision of higher than 0.05 millimeter)

190. Manufacturing of beer bottling equipment with the capacity of 60,000 bottles or more per hour, hot- and medium-temperature beverage bottling equipment with the capacity of 50,000 bottles or more per hour, and aseptic filling equipment with the capacity of 36,000 bottles or more per hour

191. Technology for producing and manufacturing of key equipment for amino acids, enzyme preparations, food additives, etc.

192. Manufacturing of complete sets of equipment for fodder processing with the capacity of 10 tons or more per hour and their key components

193. Manufacturing of equipment for lightweight corrugated boards and cartons with the corrugation height of 0.75 millimeter or less

194. Manufacturing of sheet-fed and multi-color offset presses (width \geq 750 millimeters; printing speed: single side and multiple color \geq 16,000 sheets per hour, and both sides and multiple color \geq 13,000 sheets per hour)

195. Manufacturing of single-width single-paper path web-fed lithographic printing presses with the printing speed of more than 75,000 bisect sheets per hour (787 \times 880 millimeters), double-width single-paper path web-fed lithographic printing presses with the printing speed of more than 170,000 bisect sheets per hour (787 \times 880 millimeters), and commercial web-fed lithographic printing presses with the printing speed of more than 50,000 bisect sheets per hour (787 \times 880 millimeters)

196. Manufacturing of multi-color wide flexographic presses (printing width \geq 1300 millimeters and printing speed \geq 350 meters per second), inkjet digital printing presses (used for publication: printing speed \geq 150 meters per minute and resolution \geq 600dpi; used for packaging: printing speed \geq 30 meters per minute and resolution \geq 1,000dpi; used for variable data: printing speed \geq 100 meters per minute and resolution \geq 300dpi)

197. Manufacturing of systems for ink color computer pre-setting, remote ink color control, water-ink speed tracking, automatic printing quality inspection and tracking, and shaftless driving technology; manufacturing of high-speed automatic pasters and feeders with the speed of 75,000 sheets per hour, remotely adjustable high-speed folding machines, automatic overprinting systems, cooling devices, silicon-adding systems, and deviation adjustment devices

198. Manufacturing of electron-gun automatic coating machines

199. Technology for and manufacturing of equipment for sheet glass deep processing



200. Manufacturing of complete sets of new paper (including pulp) making machines
201. Manufacturing of equipment featuring new leather post ornament and processing technology
202. Manufacturing of soil pollution control and repair equipment
203. Development and manufacturing of new agricultural product processing and storage equipment: new equipment for the processing, storage, preservation, grading, packaging, and drying of grains, oil bearing materials, vegetables, nuts, dried and fresh fruit products, meat products, aquatic products, and other products; agricultural product quality inspection instruments and equipment; damage-free quality inspection instruments and equipment for agricultural products; rheometers; farinographs; ultramicro crushing equipment; high-efficiency dewatering equipment; high-efficiency fruit juice condensation equipment achieving five or more effects; sterilization equipment for powder food materials; solid and semi-solid food aseptically packaging equipment; and disk-type centrifugal separators
204. Manufacturing of agricultural machinery: agricultural facilities and equipment (automatic irrigation equipment for greenhouses, equipment for automatic disposition of nutrient solutions and fertilization, high-efficiency vegetable seedling equipment, and soil nutrient analysis equipment); tractors with an engine power of 200 kilowatts or more and auxiliary farm implements; diesel engines with low fuel consumption, low noise and low emission; sprayers auxiliary to large tractors and equipped with residual droplets retrieval devices; high-performance rice transplanters; cotton picking machines and cotton picking platforms; self-propelled (hydraulically or mechanically-driven) corn combine harvesters adaptable to various row spacings; peanut harvesters; rapeseed harvesters; cane harvesters; beet harvesters; and self-propelled grape harvesters
205. Manufacturing of forestry facilities and equipment: equipment of intelligent greenhouse for seedlings and flower, precision irrigation, fertilizing and seedling, the analysis instruments for runoff of trunk-diameter roots and leaves of seedling, seed vigor and soil nutrients, etc., high-power (240KW) woodland operation chassis and its supporting machines and tools, small and medium-sized machines for multi-functional land preparation, tree planting, cultivation, felling and logging, etc., afforestation machinery at difficult sites, machines for collection, bundling, chipping and smashing of forest land remnants as well as their comprehensive utilization, large and medium-sized plant protection and spraying machines, small precision pesticide application equipment or biomimetic pesticide application robot, forest cone collection machine, oil fruit harvester, large and medium-sized tree transplanters, shrub stubble equipment, efficient pruning equipment, and rapid



measuring equipment for forest stocks

206. Manufacturing of wood processing equipment: rapid color difference identification technology and equipment, quick solid wood measuring instrument, rapid scar detection equipment, solid wood surface defect detection equipment, complete equipment and technology for sawing wood, equipment for the rapid detection of surface defects of artificial panel, online quality grading equipment, equipment for the online testing of rotary cutting veneer quality, equipment for film grinding and dust treatment of solid wood furniture paint, quick sorting equipment for panel furniture, and intelligent warehouse for furniture manufacturing

207. Manufacturing of forestry disaster monitoring equipment: rapid rescue equipment and high precision navigation and positioning equipment in forest areas, unmanned aerial vehicle fire and disaster monitoring and early warning equipment, and fire extinguishing and deinfestation equipment

208. Manufacturing of equipment for the collection, bundling, and comprehensive utilization of crop straws

209. Manufacturing of equipment for the utilization of agricultural waste as resources and of waste generated from large-scale livestock and poultry breeding as resources

210. Manufacturing of special equipment for advanced intelligent manufacturing and processing of leather, fur and their products

211. Manufacturing of agricultural equipment using fertilizer-saving, pesticide-saving, or water-saving technology

212. Manufacturing of equipment for cleaning electromechanical wells and equipment for producing cleaning agents

213. Manufacturing of electronic endoscopes

214. Manufacturing of fundus cameras

215. Manufacturing of medical imaging equipment (high-field-strength superconducting magnetic resonance imaging equipment, X-ray computed tomography imaging equipment, digital color diagnostic ultrasound equipment, etc.), medical imaging intelligent auxiliary diagnosis system and their key components

216. Manufacturing of (3D) ultrasonic transducers for medical use

217. Manufacturing of equipment for boron neutron capture therapy (BNCT)

218. Manufacturing of image-guided intensity modulated radiation therapy systems

219. Manufacturing of haemodialysis machines and hemofiltration machines
220. Manufacturing of equipment for automated biochemical monitoring equipment, automated five categories of blood analyzers, fully-automated chemiluminescence immunoassay analyzers, high-throughput DNA sequencing system, and molecular diagnostics devices
221. New technology for and manufacturing of new equipment for drug quality control
222. Development and manufacturing of new technology for analyzing, new process for extracting, and new equipment for effective constituents in natural drugs
223. Research, development, and manufacturing of equipment for the production of biomedical matching consumables
224. Manufacturing of multi-layer co-extrusion water-cooled blown film equipment for non-PVC medical infusion bags
225. Manufacturing of artificial intelligence-assisted medical equipment
226. Manufacturing of high-end radiotherapy equipment
227. Manufacturing of high-end surgical instruments, physical therapy rehabilitation equipment, and wearable intelligent health equipment
228. Manufacturing of life support equipment for critical illness
229. Manufacturing of mobile and remote diagnosis and treatment equipment
230. Manufacturing of ventilators, ECMO, monitors, and PCR machine
231. Development and production of minimally invasive surgical medical equipment: 3D imaging, electron microscopy systems, surgical robots, robotic arms, hearing aids, cochlear implants, etc.
232. Research, development, and production of holmium laser and carbon dioxide laser treatment products
233. Development and application of new stents, prostheses, and other high-end implanted interventional devices, materials, and additive manufacturing technologies
234. Production and manufacturing of emergency rescue equipment
235. Development and manufacturing of new textile machinery, key parts and components, and textile testing and experimental apparatus
236. Manufacturing of computer-aided jacquard artificial fur machines
237. Manufacturing of high and new equipment specially for producing solar cells
238. Manufacturing of carbon capture, utilization and storage (CCUS) equipment and greenhouse gas monitoring and metering equipment



239. Manufacturing of air pollution prevention and control equipment: low-NO_x combustion devices, catalyst for flue gas denitrogenation and complete sets of denitrogenation equipment, industrial organic exhaust purification equipment, diesel vehicle exhaust purification equipment, and heavy metal exhaust air treatment equipment
240. Manufacturing of water pollution prevention and control equipment: horizontal spiral centrifugal dehydrators, membrane and membrane materials, ozone generators with the capacity of 50kg/h or more, chlorine dioxide generators with the capacity of 10kg/h or more, ultraviolet disinfection devices, small domestic sewage treatment equipment used in rural areas, and heavy metal waste water treatment equipment
241. Manufacturing of solid waste treatment and disposal equipment: sewage plant sludge disposal and resource recycling equipment, landfill leachate treatment technology equipment, building waste treatment and resource recovery utilization equipment, devices for the disposal of hazardous waste, landfill biogas generation and power generation devices, ferrous waste treatment equipment, and facilities for the centralized disposal of medical waste
242. Development and manufacturing of equipment for the comprehensive utilization of red mud from the aluminum industry
243. Manufacturing of equipment for the comprehensive utilization of mine tailings
244. Manufacturing of equipment for the recycling, disposal, and reutilization of waste plastics, electrical appliances, rubber, and batteries
245. Manufacturing of reclamation equipment for waste textiles
246. Manufacturing of equipment for the remanufacturing of waste mechanical and electrical products
247. Manufacturing of waste heat, excess pressure, and residual air utilization equipment
248. Technology for and manufacturing of equipment for the environmental protection of aquatic ecosystems
249. Manufacturing of portable assembling water purification equipment
250. Manufacturing of unconventional water treatment or recycling equipment and water quality monitoring instruments
251. Manufacturing of leak test equipment and instruments for industrial water pipeline networks and equipment (appliances)
252. Development of technology and manufacturing of complete sets of equipment for seawater



- desalination and circulating cooling with the daily capacity of 100,000 cubic meters or more
253. Manufacturing of water-saving industrial equipment for high-water consumption industries such as the steel, papermaking, textile, petrochemical, chemical, and metallurgical industries
254. Manufacturing of special meteorological observation and analysis equipment
255. Development of systems of seismic stations, networks and mobile seismologic observation technology, and manufacturing of corresponding apparatus and equipment
256. Manufacturing of rolling resistance testers and establishment of tire noise laboratories
257. Manufacturing of new technology equipment for heat supply metering and temperature control devices
258. Manufacturing of equipment for hydrogen energy preparation, storage, transportation, and inspection systems
259. Manufacturing of new heavy residual oil gasification and atomizing nozzles, high-efficiency steam trap valves with the leakage rate of 0.5% or below, and high-temperature ceramic heat exchanger with the temperature of 1,000°C or above
260. Manufacturing of devices for the recovery of marine oil spilling
261. Manufacturing of equipment for the utilization of low concentration coal-mine gas and ventilation air methane
262. Development and utilization of products using clean coal technology and manufacturing of clean coal equipment (coal gasification and liquefaction)
263. Development of firefighting and rescue technologies and manufacturing of equipment for large public buildings, high-rise buildings, petrochemical facilities, forests, mountains, waters, and underground facilities
264. Manufacturing of intelligent equipment for emergency medical rescue
265. Manufacturing of sensors for hydrological monitoring
266. Design, research, development, and manufacturing of main process equipment of nuclear reactors
267. Development and production of diamond compact (PDC bits)
268. Technology for the online analysis of sand and gravel grain shapes and gradations and development and production of related equipment
269. Design and manufacturing of precise electronic molds
270. Development and production of dental implant systems for implant repair of patients with bone



loss

271. Heavy and light ice and snow equipment for ski resorts; industrial research, development, and production of special equipment such as passenger cableways, snow makers, and snow compactors

272. Manufacturing of polymeric dressings such as sterile vacuum sealing drainage dressing kits, bacterial cellulose membranes, and polyurethane foam dressings

273. Construction of production lines for co-extrudeduniaxially and biaxiallyoriented films with five or more layers; and construction of barrier coating production lines

(XIX) Automobile Manufacturing Industry

274. Manufacturing of automobile engines and establishment of engine research and development institutions: gasoline engines with the power of not less than 70 kilowatts per liter, diesel engines with the power of not less than 50 kilowatts per liter and the displacement of less than three liters, diesel engines with the power of not less than 40 kilowatts per liter and the displacement of three liters or more, and engines using new energy resources such as fuel cells and mixed fuels

275. Manufacturing of key automobile parts and components and research and development of key technologies: dual-clutch transmission (DCT), continuously variable transmission (CVT), automated mechanical transmission (AMT), gasoline engine turbocharger, viscous coupling (for four-wheel drive), actuator for automatic transmission (electromagnetic valve), hydraulic retarder, eddy current retarder, gas generators for automobile safety air-bags, common rail fuel injection technology (with the maximum injection pressure of more than 2,000 pa), variable geometry turbocharging (VGT) technology, variable nozzle turbocharging (VNT) technology, engine emission control devices meeting China's Phase VI pollutant emission standards, intelligent torque management (ITM) systems and coupler assembly, steer-by-wire systems, particulate trap devices, special-purpose axles for low-floor large buses, energy-absorbing steering system, low drag disc brake assemblies, aluminum steering knuckles, variable frequency air-conditioning system for large and medium buses, special rubber automobile accessories, and key parts and components of the above parts and components

276. Research, development, and manufacturing of automobile electronic devices: electronic control systems and key parts and components of engine and chassis; input (sensor and sampling system) and output (actuator) components of electronic control systems; electronic controllers for electric power steering system; embedded electronic integrated systems; electronically-controlled air springs; electronically-controlled suspension systems; electronic valve system devices;



electronic combination instrument; ABS/TCS/ESP systems; Brake-By-Wire (BBW) system; gearbox transmission control unit (TCU); tire-pressure monitoring system (TPMS); on-board diagnostics (OBD); engine anti-theft system; automatic bump-shielded system; and testing systems for automobile and motorcycle testing and maintenance; autopilot system, vehicle electronic operating system, vehicle electronic operating system application program development (APP), head-up display technology, auto avoidance steering assistant system, forward collision warning system (FCW), automatic brake control system (ABC), automatic emergency braking system (AEB), electronic parking brake system (EPB), brake-by-wire system, adaptive cruise control system (ACC), front-view camera system, and wheel speed sensors

277. Research, development, and manufacturing of key parts and components of new energy vehicles: energy-type power battery cells; battery anode material (specific capacity $\geq 180\text{mAh/g}$, cycle life of 2,000 times with not less than 80% of initial discharge capacity) and precursor materials, battery cathode material (specific capacity $\geq 500\text{mAh/g}$, cycle life of 2,000 times with not less than 80% of initial discharge capacity), battery separators (thickness $\leq 12\mu\text{m}$, porosity of 35%-60%); battery management systems, motor controller, and electronic control assembly of electric vehicles; driving motors of electric vehicles system (high-efficiency area: 85%, efficiency in working area $\geq 80\%$), vehicle DC/DC (input voltage of 100V-400V), high-power electronic devices (IGBT, voltage class $\geq 750\text{V}$, current $\geq 300\text{A}$); plug-in hybrid electromechanical coupling drive systems; fuel cells motors (mass specific power $\geq 350\text{W/kg}$), fuel cell stacks (volumetric specific power $\geq 3\text{kW/L}$), membrane electrode (platinum dosage $\leq 0.3\text{g/kW}$), proton exchange membrane (proton conductivity $\geq 0.08\text{S/cm}$), low platinum catalyst, carbon paper (resistivity $\leq 3\text{m}\Omega\cdot\text{cm}$), air compressor, hydrogen circulating pump, hydrogen ejector, humidifier, fuel cell controlling system, step-up DC/DC, 70MPa hydrogen bottle, vehicle-mounted hydrogen concentration sensor; heat pump air conditioning for electric vehicle; 32-bit and above chips specially used for motor drive control (with not less than two hardware kernels, basic frequency of not lower than 180MHz, hardware encryption and other functions, chip design in conformity with the function safety requirement of ASILC or above); integrated electric drive assembly (power density $\geq 2.5\text{kW/kg}$), high-speed reducer (maximum input speed $\geq 12,000\text{rpm}$, noise lower than 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 of new energy vehicles, etc.); aluminum plastic films of lithium batteries (thickness



152 μ m \pm 10%, outer layer peel strength \geq 6.5N/15mm, inner layer peel strength \geq 10N/15mm, peel strength of inner electrolyte resistance \geq 9.0N/15mm, and formability \geq 5.5mm)

278. Development of on-board chargers (efficiency under full load output condition \geq 95%), two-way on-board charger, off-board charging equipment (output voltage 250V~950V, efficiency within voltage range \geq 88%), as well as wireless charging and mobile charging technologies with high power density, high conversion efficiency and high suitability and equipment manufacturing

279. Research, development, and manufacturing of key parts and components of intelligent automobiles: sensor, on-board chip, central processor, on-board operating system and information control system, automobile network communication system, visual identification system, chassis-by-wire system; new-type intelligent terminal module, multi-core, heterogeneous and intelligent computing platform technology, sensor fusion sensing technology, key technologies of vehicle wireless communication, basic cloud control platform technology; new-type security isolation architecture technology, software and hardware collaborative attack recognition technology, terminal chip security encryption and application software security protection technologies, wireless communication security encryption technology, safe communication and authentication authorization technology, and data encryption technology; research and development of testing and evaluation system architecture, virtual simulation, field road testing and other technologies and verification tools, complete and system testing and evaluation methods, and construction of basic test database

280. Manufacturing of hardware and key parts and components related to L3/L4/L5 autonomous driving: lidar, millimeter wave radar, and intelligent cameras

281. Manufacturing of charging piles and energy storage charging piles, and development and manufacturing of integrated energy-saving facilities or solutions for charging/energy storage

(XX) Railway, Vessel, Aerospace, and Other Transportation Equipment Manufacturing Industry

282. Manufacturing of engine emission control devices of high-emission (>250ml) motorcycles meeting China's Phase IV emission standards for motorcycles

283. Design, manufacturing, and maintenance of civil aircrafts: aircrafts for trunk lines, regional aircrafts, and general-purpose aircrafts

284. Manufacturing and maintenance of civil aircraft parts and components



285. Design and manufacturing of civil helicopters
286. Manufacturing of civil helicopter parts and components
287. Manufacturing of ground-effect and water-effect aircrafts, and design and manufacturing of unmanned aerial vehicles and aerostats
288. Design, manufacturing, and maintenance of aircraft engines, engine parts and components, and aircraft auxiliary power systems
289. Development and production of new materials used for aerospace
290. Design and manufacturing of airborne equipment for civil aviation
291. Manufacturing of aviation ground equipment: civil airport facilities, civil airport security facilities, ground facilities for flight tests, flight simulation and training equipment, aviation test and measurement equipment, equipment for aviation ground tests, integrated test equipment for airborne equipment, special equipment for aeronautical manufacturing, special equipment for trial manufacturing of aeronautical materials, civil aircraft ground reception and application equipment, carrier rocket ground testing equipment, equipment for carrier rocket mechanics and environmental experiments, towing equipment for aircrafts without tow bars, containerized cargo loaders, and deicing equipment for aircrafts
292. Design and manufacturing of civil satellites, and manufacturing of civil satellite payloads
293. Manufacturing of civil satellite parts and components
294. Manufacturing of testing equipment for satellite-borne products
295. Design, research, and development of large and medium-sized cruise ships and small cruise ships; research, development, and manufacturing of internal decoration, digital video and audio, information systems, and other professional supporting facilities of cruise ships
296. Design, research, and development of new types of marine engineering equipment, such as deep sea offshore aquaculture platforms, large aquaculture vessels, and deep sea mineral resources exploitation equipment
297. Design, research, and development of marine LNG dual fuel power, pure battery power, hydrogen fuel cell power, methanol fuel power, ammonia fuel power, biomass fuel power, and other clean energy and new energy power
298. Design, research, and development of marine deck machinery and cabin equipment
299. Design, research, and development of vessel communication and navigation system equipment
300. Design, research, and development of yachts and specialized supporting equipment



- 301. Overall design of intelligent systems for intelligent vessels, and design, research and development of intelligent perception systems, intelligent navigation systems, intelligent energy efficiency management systems, etc.
- 302. Design, research, and development of offshore oil and gas equipment such as deep-sea oil and gas drilling platforms (ships), floating liquefied natural gas units (FLNG), and floating storage and regasification units (FSRU)
- 303. Design, research, and development of offshore wind power equipment and offshore new energy equipment (including tidal energy, wave energy, temperature difference energy, etc.)
- 304. Design, research, and development of single point mooring system, liquid cargo containment system, subsea production system, and other special systems
- 305. Design, research, and development of green intelligent equipment such as precision management and control for the construction of ship final assembly, digital shipbuilding, pre-outfitting and modularization, efficient welding, green coating, ultra-high pressure water derusting, intelligent welding production lines, intelligent segment assembly lines, and intelligent pipe processing production lines

(XXI) Electric Machinery and Equipment Manufacturing Industry

- 306. Manufacturing of key auxiliary equipment used for one million-kilowatt ultra-supercritical thermal power units: safety valves and control valves
- 307. Design and manufacturing of seals of thermal power equipment
- 308. Manufacturing of key auxiliary equipment for hydropower-generating units
- 309. Manufacturing of power transmission and transformation equipment and their key parts and components
- 310. Manufacturing of complete sets of equipment or key equipment for new energy power generation: equipment for photovoltaic power generation, solar thermal power generation, geothermal power generation, tidal power generation, wave power generation, garbage power generation, and biogas generation and power generation; and manufacturing of bulk heterojunction matrix materials
- 311. Manufacturing of Stirling generator sets
- 312. Development and manufacturing of linear motors, plane motors, and their drive systems



- 313. Manufacturing of high-tech green batteries: nickel-metal hydride (Ni-MH) batteries, nickel-zinc batteries, sodium salt batteries, silver-zinc batteries, lithium-ion batteries, solar batteries, fuel batteries, etc.
- 314. Manufacturing of refrigeration compressors for air conditioning with motor adopting DC speed control technology, refrigeration compressors for air conditioning adopting CO₂ natural refrigerants, and refrigeration equipment for air conditioning applying renewable energy (air source, water source, and ground source)
- 315. Manufacturing of solar air conditioning and heating systems and solar drying devices
- 316. Manufacturing of biomass drying pyrolysis systems and biomass gasification devices
- 317. Manufacturing of raw material pretreatment, feeding, fermentation, purification, and biogas liquid treatment equipment for biological natural gas
- 318. Manufacturing of alternating current variable voltage variable frequency traction devices
- 319. Manufacturing of high-voltage vacuum components and switchgear, intelligent medium-voltage switch components and complete sets of equipment, insulated switchgear using environment-friendly medium-voltage gas, intelligent (communicable) low-voltage electrical appliances and energy-saving power distribution transformers of amorphous alloys, rolled iron cores, etc.

(XXII) Computer, Telecommunications, and Other Electronic Equipment Manufacturing Industries

- 320. Manufacturing of HD digital camcorders and digital sound playing equipment
- 321. Manufacturing of TFT-LCD, OLED, AMOLED, laser display, quantum dots, 3D display, and other panel displays, and their materials (excluding TFT-LCD glass substrate for the first generation through the sixth generation)
- 322. Research, development, and manufacturing of polarizer base film and diffusion film
- 323. Research, development, and manufacturing of electronic book materials (electronic ink screen, etc.)
- 324. Manufacturing of silicon single crystals with a diameter of 8 inches and above
- 325. Manufacturing of silicon wafer with a diameter of 12 inches and above
- 326. Manufacturing of key parts for large-screen color projection displays, such as optical engines, light sources, projection screens, high-resolution projection tubes, and micro-display projection



modules

327. Manufacturing of laser projection equipment

328. Manufacturing of ultra-high-definition and high-tech video products: high-tech video end-to-end key software and hardware such as 4K/8K ultra-high-definition televisions, 4K cameras, monitors, interactive videos, immersive videos, VR videos, and cloud games

329. Manufacturing of digital audio and video coding and decoding equipment; equipment for digital broadcasting and television studios; equipment for digital cable television systems; digital audio broadcasting transmission equipment; digital television up-and-down converters; digital television ground broadcasting single frequency network (SFN) equipment; and equipment for satellite digital TV uplink stations

330. Design of integrated circuits; manufacturing of large-scale digital integrated circuits with a line width of 28 nanometers or less; manufacturing of analog or digital-analog integrated circuits with a line width of 0.11 micron or less, manufacturing of mask reticle, MEMS and compound semiconductor integrated circuits; and BGA, PGA, CSP, MCM, LGA, SIP, FC, WLP, and other advanced packaging and testing

331. Manufacturing of large- and medium-sized electronic computers, high-performance computers with the computing capacity of 10,000 trillion calculations per second, portable minicomputers, large analog simulation systems, industrial controlling machines and controllers

332. Research, development, and manufacturing of quantum, quasi brain, and other new mechanism computer systems

333. Development and manufacturing of key equipment for the manufacturing of super-large-scale integrated circuits

334. Manufacturing of integrated circuit packaging and testing equipment

335. Manufacturing of computer digital signal processing system and boards

336. Manufacturing of graphic and image recognition and processing systems

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

338. Manufacturing of memory systems with the capacity of 100TB or more, manufacturing of SSD solid state disk with the capacity of 8TB or more, and manufacturing of intelligent memory equipment

339. Manufacturing of computer-aided design (three-dimensional CAD) systems, electronic design automation (EDA) systems, computer-aided testing (CAT) systems, computer-aided manufacturing



(CAM) systems, computer-aided engineering (CAE) systems, and other computer application systems

340. Development and production of software products

341. Development and manufacturing of materials exclusively for electronic purposes (excluding the development and manufacturing of optical fiber preforms); development and manufacturing of lead-free solder paste used for surface mount technology (SMT), and high-purity (electronic grade) polysilicon materials

342. Manufacturing of equipment, testing instruments, tools and molds exclusively for electronic purposes

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, high molecular solid capacitors, super-capacitors, passive integrated components, high-density interconnect boards, single-layer, double-layer and flex-printed circuit boards, rigid-flex printed circuit boards, and packaging boards, and flexible circuit boards with high-density and high-thin line (line width/line spacing \leq 0.05mm), etc.

344. Manufacturing of touch control system (touch control screens, touch components, etc.)

345. Research, development, and manufacturing of virtual reality (VR), augmented reality (AR), and mixed reality (MR) equipment

346. Manufacturing of high-brightness light-emitting diodes (LEDs) with the luminous efficiency of more than 1,401m/W, LED epitaxial wafers (blue light) with the luminous efficiency of more than 1,401m/W, and white luminous tubes with the luminous efficiency of more than 1,401m/W and the power of more than 200mW

347. Development and production of key parts of high-density digital disk drives

348. Production of recordable disks

349. Research, development, and manufacturing of 3D printing equipment and their key parts and components

350. Manufacturing of equipment for satellite communication systems

351. Manufacturing of optical communication measuring instruments and optical transceivers with the speed of 40Gbps or more

352. Manufacturing of ultra-wideband (UWB) communication equipment



353. Manufacturing of equipment for wireless local area networks (including WAPI supportive) and wide area networks
354. Manufacturing of time division multiplex equipment (TDM) with the rate of 100Gbps or more, dense wavelength division multiplexing equipment (DWDM), broadband passive network equipment (including EPON, GPON, WDM-PON, etc.), next-generation DSL silicon and equipment, optical cross connect (OXC) equipment, automatically switched optical network (ASON) equipment, and transmission equipment for SDH optical fiber communication at more than 40Gbps
355. Development and manufacturing of next generation Internet system equipment, terminal equipment, testing equipment, software, and chips based on IPv6
356. Development and manufacturing of the fourth and the fifth generations and subsequent mobile communication cell phones, base stations, core network equipment, optical transmission equipment, and network testing equipment
357. Development and manufacturing of vision sensors (digital camera, digital cam, 3D sensor, laser radar, millimeter wave radar, etc.) applied to fifth-generation mobile terminals (mobile phones, automobiles, unmanned aerial vehicles, virtual reality, enhanced display, etc.) and their core parts and components (optical lens and lens, laser devices, sensitive chips, motors, optronics modules, etc.), and IoT terminals
358. Development of cloud computing equipment (including high-precision mechanical parts of servers, storage device cloud, cloud service equipment, etc.), software and system
359. Development and manufacturing of (two-way) high-end routers with the overall processing capacity of more than 6.4Tbps and switches with the exchange capacity of more than 40Tbps
360. Manufacturing of equipment for air traffic control systems
361. Development and manufacturing of auxiliary electronic teaching equipment for traditional Chinese medicine that is based on sound, light, electricity, touch control, and other computer information technologies, virtual pathological and physiological human model equipment
362. Manufacturing of smart consumer equipment such as wearable smart devices and smart unmanned aerial vehicles
363. Manufacturing of smart home platform system and equipment
364. Development and production of electronic grade fiberglass fabric exclusively for copper clad plate



365. Development and research and production of key software and data interworking technology of different equipment interfaces, etc.
366. Wafer manufacturing and regeneration
367. Research, development, and manufacturing of smart healthcare products for the elderly (manufacturing of articles and ancillary products for the elderly, manufacturing of medical apparatus and rehabilitation aids for the elderly, manufacturing of intelligent and wearable devices for the elderly, etc.)
368. Production of organic polymer materials: lithium-ion battery separators; production of high-tech nonferrous materials and their products: compound semiconductor materials (gallium arsenide, gallium phosphide, indium phosphide, and gallium nitride)
369. Development and production of high-purity electronic chemicals and high-performance photoresist
370. Development and production of functional glass using new technologies: electromagnetic wave shielding glass, glass substrate for microelectronic use, electronic-grade large-scale quartz glass products (such as pipes, plates, crucibles, and utensils), 10.5-generation or above TFT-LCD substrate glass, high-performance lithium alumina glass, OLED glass, touch sensors, flexible glass, and other glass used for electronic information display, extreme materials and products for use in information technologies (including quartz glass sleeves and ceramic wafers for waveguide-grade, high-precision optical fiber preform rods)
371. Research, development, and production of sapphire substrate

(XXIII) Manufacturing of Instruments and Meters

372. Manufacturing of soil moisture monitoring equipment
373. Manufacturing of industrial process automatic control systems and devices: fieldbus control systems, large-scale programmable logic controller (PLC), two-phase flow meters, solid flow meters, and new-type sensors and field measuring meters
374. Manufacturing of automated, intelligent, and multifunctional material mechanical performance testing equipment, industrial CT, three-dimensional ultrasonic flaw detectors, and other non-destructive testing equipment
375. Development and manufacturing of large precision instruments and high-resolution



microscopes (with the resolution of less than 200nm)

376. Manufacturing of high-precision digital voltmeters and ammeters (with a span of seven and a half bits or more)

377. Manufacturing of reactive power auto-compensation devices

378. Manufacturing of new instruments and equipment for production safety

379. Manufacturing of VXI bus automatic testing systems (in conformity to IEEE1155 international standards)

380. Development and manufacturing of coal mine underground monitoring and hazard forecasting systems, and coal safety testing and comprehensive management systems

381. Manufacturing of engineering surveying and geophysical observation equipment

382. Manufacturing of environmental monitoring instruments

383. Manufacturing of wireless remote intelligent water meters

384. Manufacturing of intelligent monitoring instruments for the safety of reservoir dam

385. Manufacturing of instruments and equipment for hydrological data collection, processing and transmission, and for early warnings on flood control

386. Manufacturing of instruments and equipment for marine exploration monitoring

387. Manufacturing of leakage monitoring instrument for municipal pipeline network and water pipeline

388. Research, development, and manufacturing of nuclear instruments and meters

389. Development and production of glow discharge mass spectrometers

390. Development and production of transmission electron microscopes

(XXIV) Comprehensive Utilization of Waste Resources

391. Coal dressing, and comprehensive utilization of coal ash (including desulfurized gypsum) and coal gangue, etc.

392. Production of completely biodegradable materials

393. Recycling and treatment of waste electrical and electronic products, automobiles, mechanical and electrical equipment, rubber, metals, and batteries

394. Comprehensive utilization of red mud and other smelting wastes

395. Recycling of decommissioned wind turbine blades and waste photovoltaic modules



396. Comprehensive utilization of sediments of the Yellow River

IV. Power, Thermal Power, Gas and Water Production and Supply Industries

397. Construction and operation of supporting and regulating power supplies by means of ultra-supercritical power plants with a unit generating capacity of 600,000 kilowatts or more

398. Construction and operation of power plants for co-generation of back-pressure, power plants for heat, electricity and cooling multi-generation, and (ultra) supercritical power plants with co-generation units of 300,000 kilowatts or more

399. Construction and operation of clean coal power generation projects using circulating fluidized bed, pressurized fluidized bed, and integrated coal gasification combined cycle, as well as low calorific value coal power generation projects using gangue, middling, coal slurry, etc. with a unit generating capacity of 300,000 kilowatts or more

400. Construction and operation of large-sized hydroelectric power stations with the main purpose of power generation and pumped storage power station

401. Construction and operation of nuclear power stations

402. Construction and operation of new energy power stations (including solar energy, wind energy, geothermal energy, tidal energy, tidal current energy, wave energy, biomass energy, etc.)

403. Construction and operation of natural gas peaking power stations and natural gas distributed energy stations in areas with guaranteed gas sources

404. Development and application of complementary system of gas power generation and renewable power generation

405. Construction and operation of waste incineration power plants

406. Construction and operation of clean energy micro-grids

407. Construction and operation of regional energy supply (cooling, heating) projects driven by natural gas, electric power, and renewable energy

408. Seawater utilization (direct utilization or seawater desalination) and brackish water utilization

409. Consulting, design, investment, construction, and operation of water supply plants

410. Consulting, design, investment, construction, and operation of renewable water plants

411. Consulting, design, investment, construction, and operation of sewage treatment plants, consulting, design, investment, construction, and operation of sludge treatment and disposal



facilities

412. Construction and operation of vehicle charging stations and battery replacement stations

413. Construction and operation of hydrogen filling stations

414. Construction and operation of bio-natural gas projects

415. Research, development, application, and production of green plant insulating oil

416. Research, development, manufacturing, construction, and operation of new energy storage equipment (including lithium-ion batteries, flow batteries, compressed air, flywheel, hydrogen energy storage, and various energy storage technologies)

417. Source-network-load-storage integration and construction of multi-energy complementary power supply

V. Transportation, Warehousing, and Postal Services Industries

418. Construction and operation of the network of trunk railway lines and railway siding

419. Construction and operation of intercity railways, city (suburb) railways, railways for resource development and branch railways, and related bridges, tunnels, and station facilities, and construction of ferries

420. Comprehensive maintenance of infrastructures of high-speed railway lines and intercity railways

421. Construction and operation of highways, independent bridges, and tunnels

422. Road freight companies

423. Construction and operation of public dock facilities in ports

424. Construction and operation of civil airports (excluding air traffic control)

425. Public air transportation companies

426. General airline companies for agriculture, forestry, and fishery

427. International marine transportation companies

428. International maritime transportation of cruise passengers

429. Construction of international container multimodal transportation and transfer facilities, research, development, promotion, and application of rapid transfer and reloading equipment and standardized carrying units

430. International ship management agencies and crew dispatch agencies



- 431. Construction and operation of oil (gas) pipelines and oil (gas) depots (excluding aviation oil pipelines and oil depots)
- 432. Construction and operation of coal pipeline transportation facilities
- 433. Construction of warehousing facilities related to logistics business, especially the construction and operation of elevated three-dimensional automatic warehousing facilities, and integrated warehousing facilities related to packaging, processing, and distribution services
- 434. Research, development, and application of scientific and technological equipment and green packages relating to express delivery services, and research, development, and application of green logistics facilities and equipment
- 435. Construction and operation of pallet and container unit sharing system
- 436. Rural and community logistics distribution
- 437. Provision and application of logistics and related technical services, such as common distribution of general commodities, cold-chain logistics of live and fresh agricultural products, and low-temperature distribution of special medicine
- 438. Construction of logistics centers for the import and export of bulk commodities
- 439. Construction of rural road passenger transport facilities and rural road passenger transport companies

VI. Wholesale and Retail Industries

- 440. E-commerce retail (including cross-border e-commerce, excluding drugs, medical apparatus, and other commodities subject to special administration by laws and regulations)
- 441. E-commerce supply chain companies (including cross-border e-commerce, excluding drugs, medical apparatus, and other commodities subject to special administration by laws and regulations)
- 442. Construction of unified distribution and retail network of commerce and trade enterprises and catering enterprises
- 443. Helium operation
- 444. Construction and operation of vehicle CNG filling stations
- 445. Wholesale and retail of imported automobiles
- 446. Cultural and creative product retail industry



VII. Information Transmission, Software, and Technology Service Industries

447. E-commerce system development and application services, construction and operation of various professional asset trading platforms

448. Online education, online medical, online office system development and application services

VIII. Leasing and Commercial Services Industries

449. International economic, scientific and technological, environmental protection and logistics information, commercial, accounting, and tax consulting services

450. Engineering consulting services

451. Engagement, by way of undertaking outsourced services, in outsourced information technology and business process services, including system application management and maintenance, information technology support management, bank back-office services, financial settlement, software development, off-shore call centers, and data processing

452. Maintenance and repair of modern high-end equipment, transformation and integration of digital production lines, professional maintenance services, and supply chain services

453. Conference, exhibition, and related services

454. Venture capital enterprises

455. Intellectual property rights services

456. Home services

457. Human resource services

458. Postpartum maternal and infant care services at confinement centers

459. Tourism convention and exhibition

460. Language service industry (including translation, localization services, language technology development and application, language resource services, etc.)

IX. Scientific Research, Development, and Product and Technological Services Industries

461. Research and development of bioengineering and biomedical engineering technologies, and biomass energy development technologies

462. Research and development of DNA encoding compound library technologies
463. Scientific research and technical services of veterinary and pet nutrition
464. Research, development, and application of intelligent devices, robots, neural network chips, neuron sensors, and other artificial intelligence technologies
465. Research and development of isotope, radiation, and laser technology
466. Research and development of marine development and marine energy exploitation technology, technology for the comprehensive utilization of marine chemical resources, technology for the development and intensive processing of related products, and technology for the development of marine medicines and biochemical products
467. Research and development of ocean monitoring technology (ocean tidal waves, weather, environmental monitoring) and technologies for the exploration and assessment of seabed detection and oceanic resources
468. Research and development of technologies of high value-added utilization of seawater chemical resources, including the production of salt and extraction and deep processing of potassium, bromine, magnesium, and lithium by comprehensively utilizing desalinated dense seawater
469. Research and development of offshore oil pollution cleaning and ecology recovery technology and relevant product development, technology for the prevention and treatment of sea water eutrophication, technology for the prevention and treatment of marine life explosive growth disaster, and coastal zone ecology and environment recovery technology
470. Research, development, and application of technologies for energy saving, environmental protection, and circular economy
471. Research, development, and application of technologies for recycling and comprehensive utilization of resources, and for recycling emissions and discharges from enterprise production
472. Research and development of environmental pollution control and monitoring technology
473. Development of and services for cleaner production technologies, clean operation of traditional energy, engineering construction and technical services, and cleaner production evaluation, certification, and review
474. Carbon capture, utilization and sequestration (CCUS) technology development and services
475. Research, development, and utilization of technologies for green building land saving and outdoor environment, energy conservation and energy utilization, water conservation and water



resource utilization, materials saving and materials resource utilization, indoor environment and operation management

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

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

478. New products and technologies for energy efficiency in chemical fiber production and printing and dyeing processing and for the disposal of waste gas, waste liquid, and waste residue

479. Research, development, and application of technology for the comprehensive utilization of phosphogypsum

480. Research and development of desertification prevention and control and sandy wasteland restoration technologies

481. Research and development of comprehensive management technology for grassland-livestock balance

482. Research, development, and application of technologies for the comprehensive utilization of waste resources in modern animal husbandry

483. Research, development, and application of new pesticide application technology

484. Research and development of civil satellite application technology

485. Inspection, testing, and authentication services

486. Research and development centers

487. High and new technology, new product development, and enterprise incubation centers

488. Research, development, and application of 5G mobile communication technologies

489. Research, development, and application of technologies for the Internet of Things

490. Research, development, and application of blockchain technology

491. Industrial design, architectural design, costume design, and other creative industries

492. Service for the formulation of urban-rural planning (excluding services for the overall planning of cities and townships)

493. Low-carbon, environment-friendly, green, energy-saving, and water-saving advanced system integration technologies and services

494. Development and application of environment-friendly technologies

495. Professional design services



X. Water Conservancy, Environmental, and Public Facilities Management Industries

- 496. Water environment control of rivers and lakes as well as water ecological restoration, management, protection, and operation
- 497. Construction and operation of urban enclosed roads
- 498. Construction and operation of urban subway, light railway, and other track transport
- 499. Construction and operation of garbage treatment plants, hazardous waste treatment and disposal plants (incineration plants and landfills), and environmental pollution treatment and control facilities
- 500. Construction and operation of urban parking facilities
- 501. Construction and operation of taxi, trolley, bus, and other public transportation system

XI. Education

- 502. Non-academic vocational training institutions
- 503. Non-academic language training institutions (except for those for primary and secondary school students and preschool children aged from 3 to 6)
- 504. Non-academic art training institutions (except for those for primary and secondary school students and preschool children aged from 3 to 6)
- 505. Vocational schools and colleges (including technical schools)

XII. Health and Social Work

- 506. Service institutions for the elderly, the disabled, and children (except for child welfare institutions, minor rescue and protection institutions, and adoption registration institutions)
- 507. Elderly care services (including home-based community elderly care services, institutional elderly care services, and construction and operation of elderly care institutions and community elderly care service institutions, etc.)
- 508. Medical institutions
- 509. Mental rehabilitation institutions
- 510. Psychological counseling institutions



511. Rehabilitation institutions for children with autistic disorder

512. Renovation of homes suitable for the elderly, renovation of a suitable environment for the elderly, and renovation of public facilities suitable for the elderly and barrier-free renovation

513. Professional education related to elderly care services, training of elderly care service skills, training of home-based elderly care skills, and elderly education

XIII. Cultural, Tourism, Sports, and Entertainment Industries

514. Operation of performance venues

515. Operation of sports grounds, body-building, contest performance, sports training, and intermediary services

516. Tourism infrastructure construction and tourism information services

517. Scenic area management, intelligent scenic area construction, and service industry

518. Construction, operation, and management of outdoor sports camps and other fitness venues and facilities

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

Catalogue of Priority Industries for Foreign Investment in Central and Western China

Shanxi Province

1. Cultivation and deep processing of pasture and forage crops

2. Planting of minor grain crops and potatoes and product development and production

3. Subsequent industrial development of national key ecological projects, such as returning farmland to forests and grassland and protection of natural forests

4. Development and application of water-saving irrigation and dry farming water-saving technologies and conservation tillage technologies

5. Restoration and reconstruction projects of the ecosystem in mining areas

6. Comprehensive utilization (excluding prospecting and exploitation) of nonmetallic ores (kaolin, limestone, silica, and quartz sand)

7. Research, development, and manufacturing of the production equipment (meteorological precipitation, carbide sintering, etc.) for graphene, carbon fibers (composite materials), and other

carbon-based materials

8. Comprehensive development and utilization of coalbed methane and coal-associated resources
9. Production of coal-based liquid fuel
10. Comprehensive utilization of coke by-products
11. Processing and production of high-grade textiles, knits, and garments made of cotton, wool, hemp, silk, and chemical fiber, as well as research, development, and testing of related products
12. Deep processing of crude drugs, API, and Chinese patent drugs (containing no confidential prescriptions)
13. Production of basalt fiber
14. Technological development and product production of high-grade glass products and high-tech ceramics (including industrial ceramics)
15. Technological development and deep processing of high-quality float glass of special varieties (ultra-clear, ultra-thin, online Low-E, hollow, and ultra-thick)
16. Comprehensive utilization, fine processing, and application (excluding prospecting and exploitation) of nonmetallic ores (bauxite, mirabilite, refractory clay, and perlite)
17. Intensive processing of magnesium, aluminum, and other nonferrous metals
18. Production of stainless steel products
19. Manufacturing of auto parts and components: automatic transmission with six gears or more, high-power and density drive axles for commercial vehicles, adaptive front-lighting systems, LED front-lighting, application of lightweight materials, clutches, hydraulic shock absorbers, central control panel assembly, seats, motors and control systems, active safety and automatic driving control systems, fuel cell systems, and their parts and components
20. Development and production of new steel materials such as steel used for high-speed trains and amorphous strips
21. Production of aluminum alloy materials and products
22. Production of steel cord rubber conveyer belts
23. Production of hydraulic technical systems and molds
24. Manufacturing of small- and medium-sized agricultural machinery and auxiliary equipment suited for dry or mountain land
25. Design and manufacturing of container-type energy storage tanks for photovoltaic solar power stations



26. Production of high-speed and precision numerical control machines with the simultaneous motion of three axes or more and auxiliary numerical control systems, servo motors and driving devices, functional components, cutting tools, measuring tools, measuring instruments, as well as high-grade grinding tools and grinding materials
27. Production of fully mechanized mining equipment and explosion-proof mechanical and electrical products for large coal mines
28. Production of nuclear power material transfer equipment and its auxiliary equipment
29. Production and processing of new types of medical apparatus and equipment and medical materials
30. Manufacturing of power supply and distribution equipment for metal mines, including design and manufacturing of IP65 grade outdoor electrical equipment, design and manufacturing of outdoor prefabricated electrical rooms, design and manufacturing of unattended prefabricated electrical rooms, design and manufacturing of mobile electrical rooms, design and manufacturing of outdoor/underground skid-mounted high and low voltage distribution centers, and manufacturing and programming of PLC programmable systems
31. Technological development and production of smart phones, tablet PCs, and other intelligent terminal products, and their key parts and components
32. Production of optical communication products
33. Power generation, heat supply, and other comprehensive utilization of the waste heat of middling coal and coke oven gas
34. Comprehensive utilization of thermal power plant waste, etc.
35. Development, production, and utilization of geothermal energy
36. Broadband services and value-added telecommunications services (limited to telecommunications services to be open based on China's commitments upon accession to the WTO)
37. Companies engaged in the highway transportation of passengers
38. Construction and operation of pipe networks for urban gas supply, heating power, and water supply and drainage
39. Research, development, production, and application of energy storage technologies (including pumped storage, electrochemical energy storage, compressed air energy storage, flywheel energy storage, hydrogen energy storage, thermal energy storage, etc.)



40. Development, production, and utilization of biomass energy
41. Industrialized development of artistic performance training, intermediary services, cultural supplies and equipment, etc.
42. Protection, development, and operation of tourist attractions (spots) and construction of their supporting facilities
43. Development, development, and utilization of cultural tourism and healthcare and elderly care industries

Inner Mongolia Autonomous Region

1. Construction of vegetable bases with standardized facilities and intensive vegetable nurseries
2. Planting and deep processing of forage feeds and crops
3. Production and processing of green workstock products (milk, meat, cashmere, fur and wool, potatoes, fruits and vegetables)
4. Traditional Chinese medicines growing in deserts, ecological economic forests in desert areas, melons and fruits in desert areas, equipment-backed agriculture in desert areas, building materials in desert areas, new energy in desert areas, tourism and recreation in desert areas, and other desert industries
5. Subsequent industrial development of national key ecological projects, such as returning farmland to forests and grassland, returning grazing land to grassland and protection of natural forests, returning farmland to lakes, returning farmland to wetland, desertification prevention and control, etc.
6. Development and application of water-saving irrigation and dry farming water-saving technologies, technologies for conservation tillage, transformation of farmland of middle or low yields, improvement of saline-alkali soil, etc.
7. Deep processing of copper, lead, zinc, magnesium, aluminum, and other nonferrous metals
8. Comprehensive utilization, fine finishing, and application (excluding prospecting and exploitation) of nonmetallic ores (Kaolin, andalusite, bentonite, dolomite, graphite, perlite, and zeolite)
9. Production and processing of high-grade textiles, knits, and garments made of cotton, wool, velvet, hemp, silk, and chemical fiber, as well as research, development, and testing of related



products

10. Comprehensive development and utilization of coalbed methane and coal-associated resources
11. Development and utilization of products using clean coal technology and supporting processing services (coal gasification, liquefaction, coal water slurry, and industrial coal)
12. Development and utilization of downstream chemical products of natural gas (excluding those included in the categories where foreign investment is restricted or prohibited in the Policies on the Utilization of Natural Gas)
13. Development and application of comprehensive utilization technologies such as using ethylene and chlorine to produce PVC of 300,000 tons or more per year through oxychlorination and producing chlorine using waste hydrochloric acid
14. Development and production of high-performance silicone oil, silicone rubber, resin, high-quality fluororesin, high-performance fluororubber, fluorine-containing fine chemicals, high-quality fluorine-containing inorganic salt, etc.
15. Production and application of silicon materials
16. Development, protection, and sustainable utilization of animal and plant medicinal resources: construction of bases for planting genuine Inner Mongolia medicinal materials and characteristic traditional Mongolian medicinal materials, construction of bases for the conservation of endangered medicinal plants, construction of seed and seedling bases, and construction of the research and development centers of factories for extracts from genuine medicinal materials
17. Production of articles specially needed by ethnic minorities, arts and crafts, packaging containers and materials, glass products for daily use, and characteristic tourist commodities and souvenirs
18. Production and application of carbon fiber products
19. Manufacturing of natural gas compressors (including coalbed methane compressors)
20. Processing of special buckles for high-performance oil and gas steel pipes
21. Research and development of Mongolian medicine and Mongolian medical equipment
22. Manufacturing of complete automobiles and manufacturing of special purpose vehicles (excluding ordinary semi-trailers, dumpers, tank trucks, van vehicles, and box/stake trucks) (which shall be governed by the Provisions on the Administration of Investment in the Automobile Industry)
23. Manufacturing of auto parts and components: automatic transmission with six gears or more,



high-power and density drive axles for commercial vehicles, adaptive front-lighting systems, LED front-lighting, application of lightweight materials (high-strength steel, aluminum-magnesium alloy, composite plastics, powder metallurgy, high-strength composite fibers, etc.), clutches, hydraulic shock absorbers, central control panel assembly, and seats

24. Research, development, production, and application of energy storage technologies (including pumped storage, electrochemical energy storage, compressed air energy storage, flywheel energy storage, hydrogen energy storage, thermal energy storage, etc.)

25. Manufacturing of the equipment for power generation by solar energy and wind power, and their parts and components

26. Power generation, heat supply, and other comprehensive utilization of the waste heat of middling coal and coke oven gas

27. Broadband services and value-added telecommunications services (limited to telecommunications services to be open based on China's commitments upon accession to the WTO)

28. Companies engaged in the highway transportation of passengers

29. Construction and operation of pipe networks for urban gas supply, heating power, and water supply and drainage

30. Institutions of higher learning

31. Animation creation and production and derivative development

32. Construction of cultural performance venues, training for performing arts, and other services

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

34. Development of health care and medical tourism

35. Development, construction, and operation of ecotourism resources of ice and snow, forests, grassland and deserts

36. Protection, development, and operation of tourist attractions (spots) and construction of their supporting facilities

37. Projects such as intensive resource processing and alternative industries in resource-exhausted cities

Liaoning Province



1. Development and application of water-saving irrigation and dry farming water-saving technologies and conservation tillage technologies
2. Subsequent industrial development of national key ecological projects, such as returning farmland to forests and grassland
3. Development and application of digital and intelligent livestock and poultry breeding technology
4. Construction of high-quality malt production bases and beer production
5. Processing and comprehensive utilization of magnesium and zircon
6. Processing and production of high-grade textiles, knits, garments and accessories made of cotton, wool, hemp, silk, and chemical fiber, as well as research, development and testing of related products
7. Development and production of biomedical technology, deep processing of crude drugs, API, and Chinese patent drugs (containing no confidential prescriptions)
8. Production of high-performance radial tires: tubeless radial truck tires, passenger car radial tires (15 inches or more) of low section, aspect ratio (less than 55 series), big wheel felloes and high performance, aircraft tires, and agricultural radial tires
9. Melting and intensive processing of aluminum alloy and titanium alloy
10. Production of stainless steel products
11. Manufacturing of metal packaging, automatic stereoscopic warehouses, and warehouse logistics equipment
12. Manufacturing of environmental protection equipment (air pollutants, sewage, and solid waste treatment equipment) and application of related solutions
13. Manufacturing of intelligent measurement and control devices and their key parts and components
14. Manufacturing of servomechanism installation of high-grade numerical control machines
15. Manufacturing of auto parts and components: automatic transmission with six gears or more, high-power and density driving axles for commercial vehicles, adaptive front-lighting systems, LED front-lighting, application of lightweight materials (high-strength steel, aluminum-magnesium alloy, composite plastics, powder metallurgy, high-strength composite fibers, etc.), clutches, hydraulic shock absorbers, central control panel assembly, seats, active and passive safety devices for automobiles, start and stop motors of automobiles, as well as driving devices and control



- systems of new energy vehicles, and online self-adhesive production of stators and rotors for high-efficiency and ultra-high-efficiency motors
16. Production and processing of new medical apparatus and equipment and medical materials
 17. Deep processing of high-precision copper, aluminum, and alloy plates and strips
 18. Design, research, development, and manufacturing of non-volatile memory
 19. Production and processing of compound semiconductor materials
 20. Development and application of products related to digital medical systems, community care, and personal health maintenance
 21. Research, development, production, and application of energy storage technology (including pumped storage, electrochemical energy storage, compressed air energy storage, flywheel energy storage, hydrogen energy storage, thermal energy storage, etc.)
 22. Development, production, and utilization of biomass energy
 23. Ship management, shipping brokerage, and other modern high-end shipping service industries
 24. Road transport of passengers
 25. Construction and operation of road freight transport station facilities
 26. Provision and application of cold chain logistics and related technical services for live and fresh agricultural, forestry, animal husbandry, and fishery products
 27. Broadband services and value-added telecommunications services (limited to telecommunications services to be open based on China's commitments upon accession to the WTO)
 28. Construction and operation of pipe networks for urban gas supply, heating power, and water supply and drainage
 29. Transformation, research and development, promotion and application of water conservation technology
 30. Development of digital audio and video and digital home products (excluding cable television networks and online audio and video program services)
 31. Institutions of higher learning
 32. Protection, development, and operation of tourist attractions (spots) and construction of their supporting facilities
 33. Projects such as intensive resource processing and alternative industries in resource-exhausted cities



34. Development of hot spring resources, and construction and operation of hot spring resorts

Jilin Province

1. Development and application of water-saving irrigation and dry farming water-saving technologies, technologies for conservation tillage, transformation of farmland of middle or low yields, improvement of saline-alkali soil, etc.
2. Development and production of coarse cereals and beans such as oats, quinoa, mung beans, and small red beans
3. Development and production of special ecological food and drinks of the Changbai Mountain such as ginseng, pilose antler, vitis amurensis, nuts, wild vegetables, blueberry, fungi, rana, tussah, honey, schisandra, dandelion, etc.
4. Wood processing by using overseas resources
5. Livestock and poultry breeding, production, and processing
6. Beer manufacturing industry
7. Production of drinking natural mineral water
8. Development and comprehensive utilization (excluding prospecting and exploitation) of diatomaceous earth resources
9. Deep processing technology development and product production of animal bone products
10. Processing and production of high-grade textiles, knits, garments, and semi-finished garments made of cotton, wool, hemp, silk, and chemical fiber, as well as research, development, and testing of related products
11. Extraction of Montan wax
12. Development, protection, and sustainable utilization of animal and plant medicinal resources
13. Research, development, production, and processing of degradable bio-based materials and products
14. Development and production of glufosinate and glufosinate intermediates
15. Technological development and deep processing of high-grade float glass of special varieties (ultra-clear, ultra-thin, on-line Low-E, hollow, and ultra-thick)
16. Production of carbon fiber precursor and carbon fiber and production of auxiliary materials, carbon fiber composite and the products required for their production



17. Production of viscose staple fiber and viscose filament yarn
18. Production and development of new basalt fiber materials
19. Production of high-performance radial tires: tubeless radial truck tires, passenger car radial tires (15 inches or more) of low section, aspect ratio (less than 55 series), big wheel felloes and high performance, aircraft tires, and agricultural radial tires
20. Production of aluminum alloy materials and products
21. Production of LED, new-type components, and other energy-saving products
22. Biomedical technology development and production, and production of modern Chinese medicine products
23. Development and production of medical equipment and their key parts and components
24. Production of items for ice and snow sports and tourists
25. Manufacturing of ropeway cable cars, recreational facilities, and other tourist equipment
26. Production and manufacturing of heat exchangers
27. Manufacturing of auto parts and components: automatic transmission with six gears or more, high-power and density drive axles for commercial vehicles, adaptive front-lighting systems, LED front-lighting, application of lightweight materials (high-strength steel, aluminum-magnesium alloy, composite plastics, powder metallurgy, high-strength composite fibers, etc.), clutches, hydraulic shock absorbers, central control panel assembly, and seats
28. Development of automobile wire harness processing technology and product production
29. Manufacturing of special purpose vehicles (excluding ordinary semi-trailers, dumpers, tank trucks, van vehicles, and box/stake trucks) (which shall be governed by the Provisions on the Administration of Investment in the Automobile Industry)
30. Technological development and production of smart phones, tablet PCs, and other intelligent terminal products, and their key parts and components
31. Development, production, and utilization of biomass energy
32. Broadband services and value-added telecommunications services (limited to telecommunications services to be open based on China's commitments upon accession to the WTO)
33. Companies engaged in the highway transportation of passengers
34. Automobile financial services
35. Construction and operation of pipe networks for urban gas supply, heating power, and water



supply and drainage

36. Institutions of higher learning

37. Animation creation and production and derivative development

38. Development of ice and snow tourist resources, and construction and operation of ski resorts, hotels, and other supporting facilities

39. Protection, development, and operation of tourist attractions (spots) and construction of their supporting facilities

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

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

42. Projects such as intensive resource processing and alternative industries in resource-exhausted cities

43. Artistic performance training and intermediary services

Heilongjiang Province

1. Subsequent industrial development of national key ecological projects, such as returning farmland to forests and grassland and protection of natural forests

2. Research, development, and innovation of black land protection and utilization technology

3. Development and application of water-saving irrigation and dry farming water-saving technologies and conservation tillage technologies

4. Restoration and reconstruction projects of the ecosystem in mining areas

5. Wood processing and woodwork production by making use of overseas resources

6. Beneficiation and comprehensive utilization of manganese and iron ore

7. Breeding and processing of high-grade beef cattle

8. Production of drinking natural mineral water and natural soda water

9. Intensive processing of beet sugar with the daily processing of beets of 3,000 tons or more and comprehensive utilization of their by-products

10. Planting and deep processing of potatoes

11. Production of green food

12. Production of milk powder, cream, cheese, liquid milk, functional milk, and other dairy



products

13. Production and processing of nutritional soybean milk powder, traditional bean products, functional protein products, soy lecithin, and other non-transgenic soybean products
14. Development and production of biomedical technology, deep processing of crude drugs, API, and Chinese patent drugs (containing no confidential prescriptions)
15. Production of articles specially needed by ethnic minorities, arts and crafts, and characteristic tourist commodities and souvenirs
16. Production of items for ice and snow sports and tourists
17. Research, development, and production of artistic ceramics, ceramics for daily use, and industrial ceramics
18. High-end application and intensive processing of graphite
19. Comprehensive utilization (excluding prospecting and exploitation) of nonmetallic ores (kaolin, limestone, silica, and quartz sand)
20. Research and development of new non-metallic mineral materials industry and technology
21. Research, development, and manufacturing of graphene, carbon fibers (including composite materials), and other carbon-based materials, and manufacturing of end products
22. Development and production of new silicon-based and photovoltaic materials
23. Processing of titanium products
24. Manufacturing of cutting and peeling tools, measuring tools, and cutting tools
25. Production of modern agricultural equipment and supporting agricultural machinery: supporting parts and components of high-powered tractors, rice transplanters, and other planting machinery, corn harvesters, grain combine harvesters, and other harvesters and their supporting parts and components
26. Production of high-performance radial tires: tubeless radial truck tires, passenger car radial tires (15 inches or more) of low section, aspect ratio (less than 55 series), big wheel felloes and high performance, aircraft tires, and agricultural radial tires
27. Research, development, and manufacturing of gas turbines
28. Manufacturing of ice and snow clearing equipment
29. Manufacturing of precision and ultra-precision machine tools
30. Manufacturing of special purpose vehicles (excluding ordinary semi-trailers, dumpers, tank trucks, van vehicles, and box/stake trucks) (which shall be governed by the Provisions on the



Administration of Investment in the Automobile Industry)

31. Manufacturing of auto parts and components: automatic transmission with six gears or more, high-power and density drive axles for commercial vehicles, adaptive front-lighting systems, LED front-lighting, application of lightweight materials (high-strength steel, aluminum-magnesium alloy, composite plastics, powder metallurgy, high-strength composite fibers, etc.), clutches, hydraulic shock absorbers, central control panel assembly, seats, and electronic instrument cluster
32. Development and production of medical equipment and their key parts and components
33. Development, production, and utilization of biomass energy
34. Production of nuclear power equipment: research, development, and production of key supporting parts and components such as nuclear power motors, cables, and internal components of nuclear reactors
35. Manufacturing of equipment for the intelligent power grid management control system
36. Industries relating to the digital economy (not involving online audio and video program services): digital commerce, intelligent logistics, and other Internet production services, research and development of intelligent manufacturing technologies, construction of public service platforms and enterprise innovation empowerment centers, and animation and other digital content services
37. Broadband services and value-added telecommunications services (limited to telecommunications services to be open based on China's commitments upon accession to the WTO)
38. Companies engaged in the highway transportation of passengers
39. Institutions of higher learning
40. Construction and operation of pipe networks for urban gas supply, heating power, and water supply and drainage
41. Animation creation and production and derivative development
42. Industrialized development of cultural performance, training for performing arts, intermediary services, and other services
43. Construction of sports venues and facilities, operation of sports events (excluding electronic sports), and sports, fitness, and leisure services
44. Development of tourism resources including forest, ice and snow, and 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 (spots) and construction of their supporting facilities
47. Development and operation of sightseeing agriculture and leisure agriculture and construction of their supporting facilities
48. Projects such as intensive resource processing and alternative industries in resource-exhausted cities
49. Healthcare and elderly care industry
50. Cold region characteristic biological industry, cold regions test, and other cold region industries

Anhui Province

1. Development and application of water-saving irrigation and dry farming water-saving technologies and conservation tillage technologies
2. Comprehensive utilization (excluding prospecting and exploitation) of kaolin, coalbed methane (mash gas), mine water, natural coke, and other coal-associated resources
3. Comprehensive utilization (excluding prospecting and exploitation) of nonmetallic ores (calcite, bentonite, kaolin, attapulgite clay, limestone, and quartz sand)
4. Production of green food
5. Processing and production of high-grade textiles, knits, and garments made of cotton, wool, hemp, silk, and chemical fiber, as well as research, development, and testing of related products
6. Research, development, and production of functional and environment-friendly recycled polyester filament yarn
7. Manufacturing of leather shoes, sports shoes, and other finished products of shoes
8. Deep processing of crude drugs, API, and Chinese patent drugs (containing no confidential prescriptions)
9. Deep processing of coal tar
10. Research, development, and manufacturing of nano materials and other new materials
11. Production of long-life, energy-saving, and environment-friendly refractory materials
12. Deep processing and comprehensive utilization of copper, zinc, aluminum, and other nonferrous metals
13. Manufacturing of high-grade seamless steel tubes and oil well pipes



14. Printing of printed matters for packaging and decoration
15. Technological development and deep processing of high-quality float glass of special varieties (ultra-clear, ultra-thin, online Low-E, hollow, and ultra-thick)
16. Production of biological liquid fuel (fuel ethanol and biodiesel) using cassava, coral plant, rubber seed, and other non-grain plants as raw materials
17. Production of high-performance radial tires: truck tires, tubeless radial truck tires, passenger car radial tires (15 inches or more) of low section, aspect ratio (less than 55 series), big wheel felloes and high performance, aircraft tires, and agricultural radial tires
18. Manufacturing of high-end medical apparatus and medical dressings
19. Manufacturing of auto parts and components: automatic transmission with six gears or more, high-power and density drive axles for commercial vehicles, adaptive front-lighting systems, LED front-lighting, application of lightweight materials (high-strength steel, aluminum-magnesium alloy, composite plastics, powder metallurgy, high-strength composite fibers, aluminum matrix composites, etc.), clutches, hydraulic shock absorbers, central control panel assembly, seats, and bearings
20. Manufacturing of complete sets of new dry process cement equipment
21. Development and manufacturing of electric forklifts, hydraulic excavators with the capacity of 30 tons or more and their parts and components
22. Research, development, and manufacturing of gas turbines
23. Integrated mining equipment for mines with the annual production of five million tons or more and thin coal seams and key equipment for large open-pit mines with the annual production of ten million tons or more; the distributed control system (DCS) used for complete sets of large metallurgical equipment and other major technical equipment
24. Manufacturing of ore dressing equipment for refractory metal minerals and complete sets of large metallurgical equipment
25. Development and production of medical equipment and their key parts and components
26. Development and production of household appliances meeting the national level 1 or level 2 energy efficiency
27. Research, development, and manufacturing of the upstream and downstream products of semiconductor lighting materials and related equipment
28. Manufacturing of integrated circuit materials, equipment and chips, and research, development,



and manufacturing of compound semiconductor materials and devices

29. Research, development, and manufacturing of flat panel displays and upstream and downstream materials, parts and components and equipment

30. Technological development and production of smart phones, tablet PCs, and other intelligent terminal products, and their key parts and components

31. Research, development, and manufacturing of smart voice, quantum communication and other equipment

32. Manufacturing of base materials for assemblies, parts and components, such as adhesive film (EVA), photovoltaic glass, back plates, and junction box

33. Research, development, and production of new materials for energy conversion in the new energy field

34. Creative industries such as 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. Companies engaged in the highway transportation of passengers

38. Travel agencies

39. Institutions of higher learning

40. Animation creation and production and derivative development

41. Construction and operation of pipe networks for urban gas supply, heating power, and water supply and drainage

42. Protection, development, and operation of tourist attractions (spots) and construction of their supporting facilities

43. Projects such as intensive processing of resources and alternative industries in resource-exhausted cities

Jiangxi Province

1. Planting and deep processing of navel orange, tangerine, sweet pomelo, tea, cornus wilsoniana wanaer, tea-oil tree, ramie, bamboo, Chinese yam, allium chinensis, lotus, kudzu vine, peanuts, sesame, wormwood, and other characteristic and dominant plants, as well as genuine crops that can



be used as both medicinal materials and food

2. Primary or deep processing of garden flowers
3. Production of drinking natural mineral water
4. Development and production of selenium-enriched agricultural products and food
5. Copper ore dressing, and extraction, intensive processing, and cyclic utilization of the associated elements thereto
6. Intensive processing of kaolin, konilite, wollastonite, sepiolite, dolomite used in the chemical industry, granite, bluestone, and other nonmetallic mineral products
7. Research, development, and production of fluorine/silicon organic materials
8. Processing and production of high-grade textiles, knits, and garments made of cotton, wool, hemp, silk, and chemical fiber, as well as research, development, and testing of related products
9. Design of wooden furniture and processing of wooden furniture by using overseas timber resources
10. Production of handicrafts, gardening supplies, and bamboo and wood products
11. Development and production of suitcases and bags and clothing accessories
12. Manufacturing of leather shoes, sports shoes, and other finished products of shoes
13. Construction of single forestry-paper integrated production lines for chemical wood pulp with the annual production of 300,000 tons or more, chemical mechanical wood pulp with the annual production of 100,000 tons or more, chemical bamboo pulp with the annual production of 100,000 tons or more, and corresponding supporting paper and paperboard production lines (excluding newsprint and art paper), and construction of the single paper pulp production lines adopting cleaner production process, using non-wood fiber as raw materials and with the annual production of 100,000 tons or more
14. Production of biological liquid fuel by using cassava plants with the annual production of 100,000 tons or more
15. Deep processing by using tungsten, nickel, cobalt, tantalum, niobium, and other rare metal resources, production of application products and cyclic utilization
16. Development and application of comprehensive utilization technologies such as using ethylene and chlorine to produce PVC of 300,000 tons or more per year through oxychlorination and producing chlorine using waste hydrochloric acid
17. Research, development, and production of crude drugs, API, and Chinese patent drugs



(containing no confidential prescriptions), and initial development and utilization of drugs with generic names to meet China's needs for the prevention and treatment of serious and frequently-occurring diseases

18. Research, development, and production of art ceramics, ceramics for daily use, and industrial ceramics
19. Production of high-performance radial tires: tubeless radial truck tires, passenger car radial tires (15 inches or more) of low section, aspect ratio (less than 55 series), big wheel felloes and high performance, aircraft tires, and agricultural radial tires
20. Printing of printed matters for packaging and decoration
21. Research, development, and production of communication terminal products as well as their parts and components
22. Manufacturing of copper clad laminate of new electronic components
23. Manufacturing of auto parts and components: automatic transmission with six gears or more, high-power and density drive axles for commercial vehicles, adaptive front-lighting systems, LED front-lighting, application of lightweight materials (high-strength steel, aluminum-magnesium alloy, composite plastics, powder metallurgy, high-strength composite fibers, etc.), clutches, hydraulic shock absorbers, central control panel assembly, and seats
24. Development and production of medical equipment and their key parts and components
25. Production of air conditioners and energy-efficient compressors and their parts and components
26. Manufacturing of solar energy power generation equipment and their parts and components
27. Research, development, manufacturing, and engineering installation of distributed energy storage equipment based on new energy batteries such as lithium batteries, sodium batteries, and aluminum batteries
28. Research, development, and production of upstream and downstream products of semiconductor chips
29. Research, development, and manufacturing of upstream and downstream products of semiconductor lighting materials and related equipment
30. Research, development, and manufacturing of special equipment for producing lithium batteries and other lithium products
31. Research, development, application, and manufacturing of optical components and film-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 to be open based on China's commitments upon accession to the WTO)
34. Companies engaged in the highway transportation of passengers
35. New circulation industries such as commercial chain operations and cross-regional agency operations
36. Vocational and skills training services based on virtual reality (VR) and augmented reality (AR) devices
37. Animation creation and production and derivative development
38. Health care and leisure services, leisure tourism, and other leisure industries
39. Protection, development, and operation of tourist attractions (spots) and construction of their supporting facilities
40. Cultural creativity based on virtual reality (VR) or augmented reality (AR) devices (excluding online audio and video program services), including the development of software and hardware, and design, production, and sale of relevant virtual products and real peripheral products

Henan Province

1. Planting and processing of high-quality tea, willow twig, garlic, peanut, chrysanthemum, honeysuckle, raspberry, cornus officinalis, kiwifruit, mushroom paste, vermicelli, sesame, edible fungi, citrus, apricot pear, soft seed pomegranate, and other advantageous and special agricultural products and products for use of medicines and food
2. Subsequent industrial development of national key ecological projects, such as returning farmland to forests and grassland and protection of natural forests
3. Development and application of water-saving irrigation and dry farming water-saving technologies and conservation tillage technologies
4. Production of seasoned noodles and rice products
5. Intensive processing of copper, magnesium, zinc, aluminum, lead, precious metals, and other nonferrous metals
6. Processing and production of high-grade textiles, knits, and garments made of cotton, wool,



hemp, silk, and chemical fiber, as well as research, development, and testing of related products

7. Development and production of products of coalbed methane (coal mine gas) extraction and utilization technologies

8. Comprehensive utilization of coke by-products

9. Production of products made of superhard materials

10. Deep processing of crude drugs, API, and Chinese patent drugs (containing no confidential prescriptions)

11. Digitalized printing of printed matters for packaging and decoration

12. Technological development and deep processing of high-quality float glass of special varieties (ultra-clear, ultra-thin, online Low-E, hollow, and ultra-thick)

13. Production of high-performance radial tires: tubeless radial truck tires, passenger car radial tires (15 inches or more) of low section, aspect ratio (less than 55 series), big wheel felloes and high performance, aircraft tires, and agricultural radial tires

14. Research, development, and manufacturing of the production equipment (meteorological precipitation, carbide sintering, etc.) for graphene, carbon fibers (composite materials), and other carbon-based materials, research, development, and manufacturing of graphene, carbon fibers (including composite materials), and other carbon-based materials, and manufacturing of end products

15. Production, research, development, and testing of hydraulic pipe industry

16. Manufacturing of auto parts and components: automatic transmission with six gears or more, high-power and density drive axles for commercial vehicles, adaptive front-lighting systems, LED front-lighting, application of lightweight materials (high-strength steel, aluminum-magnesium alloy, composite plastics, powder metallurgy, high-strength composite fibers, etc.), clutches, hydraulic shock absorbers, central control panel assembly, and seats

17. Production and processing of new medical apparatus and equipment and medical materials

18. Research, development, and production of epidemic prevention and protection products and their production equipment

19. Production, processing, and application of silicon-based materials

20. Production of high-speed and precision numerical control machines with the simultaneous motion of three axes or more and auxiliary numerical control systems, servo motors and driving devices, functional components, cutting tools, measuring tools, measuring instruments, as well as



high-grade grinding tools and grinding materials

21. Production of modern intelligent agricultural equipment and supporting agricultural machinery

22. Manufacturing of wheel tractors equipped with buncher of 300 horsepower or more, and key components of tractors of 300 horsepower or more: engine, gearbox, united hydraulic joint control system, and two-input two-output speed regulation for tractors with buncher

23. Integrated mining equipment for mines with the annual production of five million tons or more and thin coal seams and key equipment for large open-pit mines with the annual production of ten million tons or more; complete sets of drilling rigs such as drilling rigs for deep well of 12,000 meters or more, polar drilling rigs, desert rigs for deep well of extended reach, drilling rigs used in swamps where entry is difficult, marine rigs, truck-mounted drill rigs and drilling rigs used in special drilling process

24. Manufacturing of automation equipment for the integrated management of electric energy

25. Production and manufacturing of solar photovoltaic products

26. Technological development, and production of smart phones, tablet PCs, and other intelligent terminals, and their key parts and components

27. Manufacturing of air conditioners, refrigerators, and energy-efficient compressors and their parts and components

28. Biomedical technology development and production

29. Development, production, and utilization of biomass energy

30. Broadband services and value-added telecommunications services (limited to telecommunications services to be open based on China's commitments upon accession to the WTO)

31. Construction and operation of road freight transport station facilities

32. Companies engaged in the highway transportation of passengers

33. Creative design, industrial design, and software design and production

34. Institutions of higher learning

35. Animation creation and production and derivative development

36. Construction and operation of pipe networks for urban gas supply, heating power, and water supply and drainage

37. Development and operation of sightseeing agriculture, leisure agriculture, and protected agriculture and construction of their supporting facilities



38. Development of health care and medical tourism
39. Protection, development, and operation of tourist attractions (spots) and construction of their supporting facilities

Hubei Province

1. Development of characteristic industries of agriculture, forestry, animal husbandry, and fishery, research and development, processing, and export (excluding grain crops)
2. Seed selection and breeding of new crop varieties and seed production
3. Tea planting, processing, and purchasing services
4. Development and application of conservation tillage technologies
5. Production of drinking natural mineral water
6. Development and production of selenium-enriched agricultural products and food
7. Development of high-grade textile and garment techniques and technologies
8. Production of non-woven fabrics and medical textiles
9. Development, protection, and sustainable utilization of animal and plant medicinal resources and health care products, research and development of plant flower, root and rhizome products, and deep processing of seed oil extraction
10. Processing and production of high-grade textiles, knits, and garments made of cotton, wool, hemp, silk, and chemical fiber, as well as research, development, and testing of related products
11. Manufacturing of leather shoes, sports shoes, and other finished products of shoes
12. Printing of printed matters for packaging and decoration
13. Biomedical technology research, development, and production
14. Research, development, and manufacturing of the production equipment (meteorological precipitation, carbide sintering, etc.) for graphene, carbon fibers (composite materials), and other carbon-based materials, research, development, and manufacturing of graphene, carbon fibers (including composite materials), and other carbon-based materials, and manufacturing of end products
15. Intensive processing of turquoise
16. Extended processing and recycling of copper mines and other nonferrous metal products
17. Technological development and deep processing of high-grade glass of special varieties (ultra-



clear, ultra-thin, on-line Low-E, hollow, and ultra-thick)

18. Production and manufacturing of clocks and watches

19. Production of ceramic sanitary ware products

20. Manufacturing of air conditioners and energy-efficient compressors and their parts and components

21. Manufacturing of energy-saving, water-saving, and environmental protection equipment and application of related solutions

22. Development and manufacturing of auto parts and components: automatic transmission with six or more gears, high power density driving axles for commercial vehicles, adaptive front-lighting systems, LED front-lighting, application of lightweight materials (high-strength steel, aluminum-magnesium alloy, carbon fibers, composite plastics, powder metallurgy, high-strength composite fibers, etc.), clutches, hydraulic shock absorbers, automotive power steering gears, central control panel assembly, seats, products related to the common rail fuel injection system, turbocharged engines, motors and control systems, active safety and automatic driving control systems and their key parts and components

23. Fully-wrapped carbon fiber reinforced cylinders with a plastic liner for the on-board storage of compressed hydrogen as fuel for vehicles

24. Production of high-performance radial tires: tubeless radial truck tires, passenger car radial tires (15 inches or more) of low section, aspect ratio (less than 55 series), big wheel felloes and high performance, aircraft tires, and agricultural radial tires

25. Production of high-speed and precision numerical control machines with the simultaneous motion of three axes or more and auxiliary numerical control systems, servo motors and driving devices, functional components, cutting tools, measuring tools, measuring instruments, as well as high-grade grinding tools and grinding materials

26. Manufacturing of special steel cables and wireropes (average tensile strength $>2,200$ MPa)

27. Development and manufacturing of laser medical equipment

28. Manufacturing of high-end oil and gas exploitation equipment (fracturing equipment for petroleum machinery)

29. Development and application of products related to digital medical systems, community care, and personal health maintenance

30. Production of flexible displays and display materials



31. Manufacturing of solar energy power generation equipment and their parts and components
32. Development and manufacturing of photoelectron technologies and products (including optical fiber preform and light-emitting diode (LED))
33. Manufacturing of integrated circuit materials, equipment and chips, and research, development, and manufacturing of compound semiconductor materials and devices
34. Processing of lithium resources and research, development, and manufacturing of related lithium products
35. Comprehensive utilization of the waste gas, waste liquid, and waste residue of pharmaceutical and chemical raw materials
36. Production and processing of new medical apparatus and equipment and medical materials
37. Research, development, and production of epidemic prevention and protection products
38. Development and construction of the enterprise food safety traceability system
39. Development, production, and utilization of biomass energy
40. Research, development, production, and application of energy storage technology (including pumped storage, electrochemical energy storage, compressed air energy storage, flywheel energy storage, hydrogen energy storage, thermal energy storage, etc.)
41. Broadband services and value-added telecommunications services (limited to telecommunications services to be open based on China's commitments upon accession to the WTO)
42. Companies engaged in the highway transportation of passengers
43. Development and application of integrated optical storage and charging system and new energy vehicle charging equipment technology
44. New circulation industries such as commercial chain operations and cross-regional agency operations
45. Animation creation and production and derivative development
46. Construction and operation of pipe networks for urban gas supply, heating power, and water supply and drainage
47. Protection, development, and operation of tourist attractions (spots) and construction of their supporting facilities
48. Development of health and medical care tourism



Hunan Province

1. Development and application of water-saving irrigation and dry farming water-saving technologies and conservation tillage technologies
2. Planting and processing of camellia oleifera and other woody oil plants
3. Development and building of the enterprise food safety traceability system
4. Construction and operation of the entire industry chain of agriculture, animal husbandry, and food industries
5. Processing and production of high-grade textiles, knits, and garments made of cotton, wool, hemp, silk, and chemical fiber, as well as research, development, and testing of related products
6. Manufacturing of leather shoes, sports shoes, and other finished products of shoes
7. Development and production of suitcases and bags, toys, wigs, and special handicrafts
8. Development and manufacturing of high-end environment-friendly bamboo and wood furniture, restructured bamboo, outdoor bamboo, disposable tableware, and bamboo fiber products
9. High-performance concrete admixture
10. Intensive processing of manganese and zinc
11. Production of bismuth chemical compounds
12. Deep processing of aluminum-based light metal materials
13. Research, development, and production of art ceramics, ceramics for daily use, and industrial ceramics
14. Deep processing of crude drugs and Chinese patent drugs (containing no confidential prescriptions)
15. In-depth development of hormonal drugs
16. Technological development and deep processing of high-quality glass of special varieties (ultra-clear, ultra-thin, online Low-E, hollow, ultra-thick, etc.)
17. Processing of large-diameter steel pipes, such as high-end hot-rolled seamless steel pipes for high-end buildings, pipes for nuclear power generation, seamless steel pipes for supercritical high pressure boilers, and branch pipes for finished oil products
18. Production of high-performance radial tires: tubeless radial truck tires, passenger car radial tires (15 inches or more) of low section, aspect ratio (less than 55 series), big wheel felloes and high performance, aircraft tires, and agricultural radial tires



19. Intensive processing of cemented carbides
20. Bi-metal high-speed cutting tools
21. Research, development, and manufacturing of thermal management systems and control systems of new energy vehicles, including research, development, and manufacturing of electric drive thermal management system, battery thermal management system, passenger cabin thermal management system and their control systems
22. Development and manufacturing of auto parts and components and automobile electronic devices: automatic transmission with six gears or more, high-power and density driving axles for commercial vehicles, adaptive front-lighting systems, LED front-lighting, application of lightweight materials (high-strength steel, aluminum-magnesium alloy, carbon fibers, composite plastics, powder metallurgy, high-strength composite fibers, etc.), clutches, hydraulic shock absorbers, central control panel assembly, seats, products related to the common rail fuel injection system, turbocharged engines, motors and control systems, and active safety and automatic driving control systems
23. Production of high-speed and precision numerical control machines with the simultaneous motion of three axes or more and auxiliary numerical control systems, servo motors and driving devices, functional components, cutting tools, measuring tools, measuring instruments, as well as high-grade grinding tools and grinding materials
24. Hydraulic excavators with the capacity of 30 tons or more, full-section tunnelers of six meters or more, crawler bulldozers of 320 horsepower or more, loaders with the capacity of six tons or more, bridging equipment with the capacity of 600 tons or more (including bridge erection machines, girder transporter, and girder crane), crawler cranes with the capacity of 400 tons or more, all-terrain cranes with the capacity of 100 tons or more, drill jumbo capable of drilling 100 millimeters or more, concrete heat and hot regeneration equipment of 400 kilowatts or more, milling machines of one meter or more in width; key parts and components: power shift gearbox, wet drive axle, slewing bearing, hydraulic torque converter, supporting electric machine and electric control for electric forklift, hydraulic motor, pump and control valve with the pressure of 25MPa or more
25. 60C or above concrete pumps, concrete pump trucks of 50 meters or more, concrete spreader, concrete mixing and transporting trucks and concrete spraying manipulator; lifting machinery, including tower cranes, high-altitude operation car of 50 meters or more, and tyre crane with the



capacity of 50 tons or more; pavement construction machinery, including road asphalt pavers of 12 meters or more, asphalt concrete mixing equipment with the capacity of four tons or more, full hydraulic rollers with the capacity of 26 tons or more, equipment and system for waste collection, transportation and disposal and other products

26. Manufacturing of key components of large engineering machinery: power shift gearbox, wet drive axle, slewing bearing, hydraulic torque converter, supporting electric machine and electric control for electric forklift, hydraulic motor, pump and control valve with the pressure of 25MPa or more

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

28. Manufacturing of complete sets of new rubber machinery equipment

29. Production and processing of new medical apparatus and equipment and medical materials

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

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

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

33. Technological development and production of smart phones, tablet PCs, and other intelligent terminal products, and their key parts and components

34. Manufacturing of solar energy and wind energy power generation equipment and their parts and components

35. Development and production of photosensitive ink 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 to be open based on China's commitments upon accession to the WTO)

39. Companies engaged in the highway transportation of passengers

40. Animation creation and production and derivative development

41. Construction and operation of pipe networks for urban gas supply, heating power, and water supply and drainage



42. Construction of cultural performance venues, training for performing arts, and other services
43. Construction of sports venues and facilities, operation of sports events (excluding electronic sports), and sports, fitness, and leisure services
44. Development of health care and medical tourism
45. Protection, development, and operation of tourist attractions (spots) and construction of their supporting facilities
46. Protection, development, and operation of natural relics and construction of their supporting facilities

Guangxi Zhuang Autonomous Region

1. Seed selection and breeding of new crop varieties and seed production
2. Research, development, and application of planting, deep processing and comprehensive utilization technologies for fruits, nuts, fruit oils, spices, and beverage crops
3. Subsequent industrial development of national key ecological projects, such as returning farmland to forests and grassland
4. Development and production of animal and plant medicinal resources
5. Production and processing of nutritional soybean milk powder, traditional bean products, functional protein products, soy lecithin, and other non-transgenic soybean products
6. Intensive processing of cane sugar with the daily processing of sugarcane of 5,000 tons or more and comprehensive utilization of their by-products
7. Deep processing of rosin
8. Production of drinking natural mineral water
9. Beer manufacturing industry
10. Design and manufacturing of wood, bamboo, rattan, metal and plastic furniture
11. Processing and production of high-grade textiles, knits, and garments made of cotton, wool, hemp, silk, and chemical fiber, as well as research, development, and testing of related products
12. Development and production of shoes and hats, toys, wigs, suitcases and bags, and leather goods
13. Construction of single forest-paper integration production lines of chemical wood pulp with an annual production capacity of 300,000 tons or more or chemical mechanical wood pulp with an



- annual production capacity of 100,000 tons or more or chemical bamboo pulp with an annual production capacity of 100,000 tons or more, and the corresponding supporting paper and paperboard production lines (excluding newspapers and coated paper), construction of single production lines of paper pulp by using the cleaner production process and using non-wood fibers as raw materials with an annual production capacity of 100,000 tons or more, development and manufacturing of advanced pulping and papermaking equipment, and development and application of elemental chlorine-free (ECF) and total chlorine-free (TCF) chemical pulp bleaching processes
14. Research, development, and manufacturing of the production equipment (meteorological precipitation, carbide sintering, etc.) for graphene, carbon fibers (composite materials), and other carbon-based materials, research, development, and production of graphene, carbon fibers (including composite materials), and other carbon-based materials, and manufacturing of end products
 15. Intensive processing of calcium carbonate
 16. Development and production of ternary, multicomponent, lithium iron phosphate and other cathode materials for lithium-ion batteries, mesophase carbon microspheres, silicon carbon, and other anode materials, single-layer and three-layer composite lithium-ion battery separators, electrolytes and additives such as fluoroethylene carbonate (FEC); and recycling of waste batteries and green recycling production process and manufacturing of relevant equipment
 17. Production of stainless steel products
 18. Production of copper and aluminum alloy materials and products
 19. Intensive processing of zinc, tin, antimony, tungsten, manganese, indium, and other metals
 20. Research, development, and production of art ceramics, ceramics for daily use, and industrial ceramics
 21. Deep processing of crude drugs, API, and Chinese patent drugs (containing no confidential prescriptions), research and development of Zhuang medicine and medical equipment for Zhuang medicine
 22. Biomedical technology research and development and bio-pharmaceutical production, and development and production of drugs with generic names passing the consistency evaluation of the quality and efficacy of generic drugs
 23. Research, development, and manufacturing of medical instruments and equipment, apparatus and sanitary materials, medical supplies, and pharmaceutical excipients



24. Technological development and deep processing of high-grade float glass of special varieties (ultra-clear, ultra-thin, on-line Low-E, hollow, and ultra-thick)
25. Production of biological liquid fuel (fuel ethanol and biodiesel) using cassava, coral plant, rubber seed, and other non-grain plants as raw materials
26. Production of high-performance radial tires: tubeless radial truck tires, passenger car radial tires (15 inches or more) of low section, aspect ratio (less than 55 series), big wheel felloes and high performance, aircraft tires, and agricultural radial tires
27. Manufacturing of complete automobiles and manufacturing of special purpose vehicles (excluding ordinary semi-trailers, dumpers, tank trucks, van vehicles, and box/stake trucks) (which shall be governed by the Provisions on the Administration of Investment in the Automobile Industry)
28. Manufacturing of auto parts and components: automatic transmission with six gears or more, high-power and density drive axles for commercial vehicles, adaptive front-lighting systems, LED front-lighting, application of lightweight materials (high-strength steel, aluminum-magnesium alloy, composite plastics, powder metallurgy, high-strength composite fibers, etc.), clutches, hydraulic shock absorbers, central control panel assembly, and seats
29. Manufacturing of engines that meet Phase IV non-road emission standards
30. Research, development, and manufacturing of sugarcane planters, sugarcane harvesters, and other agricultural machinery
31. Manufacturing of complete sets of new rubber machinery equipment
32. Manufacturing of key parts and components of large engineering machinery: power shift gearbox, wet drive axle, slewing bearing, hydraulic torque converter, supporting electric machine and electric control for electric forklift, hydraulic motor, pump and control valve with the pressure of 25MPa or more
33. Development and production of high-end pharmaceutical equipment
34. Development and application or production and processing of photovoltaic-energy storage-charging integration and technology for new energy vehicle charging equipment
35. Technological development and production of smart phones, tablet PCs, and other intelligent terminal products, and their key parts and components
36. Drug screening platform, clinical technology transformation platform, pilot scale-up platform, and other third-party technical platforms for the research, development, and production of drugs,



medical apparatus and products

37. Broadband services and value-added telecommunications services (limited to telecommunications services to be open based on China's commitments upon accession to the WTO)
38. Companies engaged in the highway transportation of passengers
39. Conference and exhibition planning and preparation and related services
40. International shipping agency and ocean shipping tally
41. Shipping service industries such as ship supply, third-party ship management, shipping arbitration, average adjustment, shipping transactions, shipping leasing, bonded warehousing, international logistics and distribution, shipping information services, crew services, and maritime training
42. Investment in and development of cross-border industrial cooperation such as cross-border tourism, cross-border logistics, and cross-border human resources services
43. Institutions of higher learning
44. Construction and operation of pipe networks for urban gas supply, heating power, and water supply and drainage
45. Animation creation and production and derivative development
46. Healthcare and leisure services, leisure tourism, and other leisure industries
47. Development of health care and medical tourism
48. Protection, development, and operation of tourist attractions (spots) and construction of their supporting facilities
49. Construction of sports venues and facilities, operation of sports events (excluding electronic sports), and sports, fitness, and leisure services
50. Design and production of characteristic tourist handicrafts

Hainan Province

1. Selection and breeding of quality crop and livestock and poultry varieties and seed production
2. Introduction, cultivation, and operation of tropical fruit tree seedlings
3. Processing of aquatic products and comprehensive utilization of by-products
4. Deep processing of coconut and cubilose



5. Development and application of coastal forest recovery, natural forest protection, water-saving irrigation and dry farming water-saving technologies and other technologies
6. Development and application of technologies for agricultural waste recycling
7. Production of drinking natural mineral water
8. Biomedical technology development and production
9. Research, development, and production of traditional Chinese medicines and ethnic drugs in Hainan Province
10. Exploration and mining of seabed minerals
11. Production of high-end furniture using overseas wood and rattan as raw materials
12. Creative design and production of tourist handicrafts
13. Development and utilization of downstream chemical products of natural gas (excluding those included in the categories where foreign investment is restricted or prohibited in the Policies on the Utilization of Natural Gas)
14. Production of high-performance radial tires: tubeless radial truck tires, passenger car radial tires (15 inches or more) of low section, aspect ratio (less than 55 series), big wheel felloes and high performance, aircraft tires, and agricultural radial tires
15. 5MW and above offshore wind turbine technology development and equipment manufacturing, and construction of offshore wind farms
16. Production and processing of new mechanical apparatus and equipment and medical materials, especially research, development, and production of medical instruments and equipment and apparatus with independent intellectual property rights
17. Research and development, manufacturing, inspection, maintenance, sales and supporting industries of equipment for offshore oil exploration, exploitation, and production
18. Manufacturing of precision mechanical watches, mechanical clocks and their parts and components, smart watches and their parts and components
19. Design and research and development of new energy vehicles and manufacturing of their parts and components
20. Research, development, and production of epidemic prevention and protection products and their production equipment
21. Research and development of vessels powered by new energy and clean energy
22. Design, manufacturing, and maintenance of cruise ships, and construction of related



infrastructure equipment, ship supply services, and tourism product operation services

23. Design, manufacturing, and maintenance of yachts, and construction of related infrastructure equipment, ship supply services, and tourism product operation services

24. Research, development, and manufacturing of marine engineering equipment

25. Manufacturing of golf equipment

26. Development and manufacturing of photoelectron technologies and products (including optical fiber preform and LED)

27. Technological development and production of smart phones, tablet PCs, and other intelligent terminal products, and their key parts and components

28. Manufacturing of aerospace-related equipment

29. Operation of high-end consumer goods

30. New-type offshore international trade (technologically advanced services)

31. Broadband services and value-added telecommunications services (limited to telecommunications services to be open based on China's commitments upon accession to the WTO)

32. Companies engaged in the highway transportation of passengers

33. Innovation and application of modern supply chains

34. Aviation oil support

35. Ship supplies such as marine products and materials supply

36. International waterway passenger and cargo transport and ancillary services

37. International shipping agency and ocean shipping tally

38. Shipping service industries, including but not limited to ship supply, third-party ship management, shipping insurance, shipping arbitration, average adjustment, shipping transactions, shipping finance, shipping leasing, bonded warehousing, international logistics and distribution, shipping information services, crew services, and maritime training

39. Bulk commodity trade (excluding the commodities subject to quota management by the state)

40. Brand experience stores, brand direct sale shopping centers, chain convenience stores, and theme shopping malls

41. Trade brokerage, agency and services

42. Sale of new energy vehicles and their parts and components

43. Research, development, and operation management of global consolidation and distribution



systems

44. Construction and operation of tourism, ecological, and cultural theme hotels
45. Operational leasing of machinery and equipment
46. Medical apparatus outsourcing services (contract research organization (CRO) and contract development and manufacturing organization (CDMO) outsourcing)
47. Medical consultation
48. Park management services
49. Research, development, and design of processes, devices, and technologies for high-end chemicals, new chemical materials, and natural gas chemical industries
50. Securities companies, futures companies, and insurance companies
51. Venture capital, angel investment, other futures market services, and capital investment services
52. Financial leasing services
53. Operation, lease, and maintenance services of medical equipment, business jets, and new energy vehicles
54. Design, processing, manufacturing, and trade of diamond, jade, gemstones, jewelry, and other consumer boutiques
55. Travel agencies
56. Schools for the children of foreigners
57. Ordinary senior high schools and institutions of higher learning
58. High-end professional medical treatment, rehabilitation, nursing, and other medical and health care services
59. Construction and operation of pipe networks for urban gas supply, heating power, and water supply and drainage
60. Construction and operation of cinemas
61. Business premises for Internet access services
62. Animation creation and production and derivative development
63. Performance brokerage institutions
64. Art performance groups
65. Leisure services such as sports and health leisure, sports tourism, and health care leisure
66. Development of health care and medical tourism and sports tourism
67. Development and operation of country houses and motor caravan tours and construction of



supporting facilities

68. Development and operation of sightseeing agriculture and leisure agriculture and construction of their supporting facilities

69. Protection, development, and operation of tourist attractions (spots) and construction of their supporting facilities

70. Development and operation of ocean and tropical rainforest eco-tourism resources and construction of their supporting facilities

71. Tourism communities and tourist resorts with the urban complex concept

72. Smart sports

Chongqing Municipality

1. Development of characteristic industries of agriculture, forestry, animal husbandry, and fishery, research and development of technologies, and processing and export of products

2. Beer manufacturing industry

3. Exploration, exploitation, and beneficiation of marine shale and lacustrine shale in the upstream oil and gas regions where mining rights are not claimed (especially in the Sichuan Basin), and development and application of shale oil and gas technologies

4. Production and development of downstream chemical products of natural gas (excluding those included in the categories where foreign investment is restricted or prohibited in the Policies on the Utilization of Natural Gas)

5. Development and production of major raw materials and composite materials of polyurethane, high-performance, and high value-added polyurethane and engineering plastics and downstream new materials innovative application products

6. Deep processing of crude drugs, API, and Chinese patent drugs (containing no confidential prescriptions), processing of Chinese medicines and extraction of biological components, production of featured raw materials and intermediates, production of overseas traditional Chinese medicines and chemical generics

7. Biomedical technology development and production

8. Research, development, and manufacturing of the production equipment (meteorological precipitation, carbide sintering, etc.) for graphene, carbon fiber (composite materials), and other



- carbon-based materials, and research, development, production, and end-products manufacturing of graphene, carbon fiber (including composite materials), and other carbon-based materials
9. Technology development, production, and application of aerogel energy-saving materials
 10. Production of long-life, energy-saving, and environment-friendly refractory materials
 11. Technological development and deep processing of high-quality float glass of special varieties (ultra-clear, ultra-thin, on-line Low-E, hollow, ultra-thick, and body colouration), and technological development of automobile grade high-quality float glass (used for automobile glass>85% or more of the output)
 12. Design and manufacturing of wood, bamboo, rattan, metal and plastic furniture
 13. Processing and production of high-grade textiles, knits, and garments made of cotton, wool, hemp, silk, and chemical fiber
 14. Toy development and production
 15. Research, development, and production of artistic ceramics, ceramics for daily use, and industrial ceramics
 16. Intensive processing of aluminum and magnesium
 17. Manufacturing of environmental protection equipment (air pollutants, sewage, and solid waste treatment equipment) and application of related solutions
 18. Manufacturing of complete motorcycles of high performance with the displacement of 250ml or more and manufacturing of key parts and components
 19. Manufacturing of complete automobiles and manufacturing of special purpose vehicles (excluding ordinary semi-trailers, dumpers, tank trucks, van vehicles, and box/stake trucks) (which shall be governed by the Provisions on the Administration of Investment in the Automobile Industry)
 20. Production of high-performance radial tires: tubeless radial truck tires, passenger car radial tires (15 inches or more) of low section, aspect ratio (less than 55 series), big wheel felloes and high performance, aircraft tires, and agricultural radial tires, and key raw materials for radial tires included in the Guide to Current Key Areas for Priority Development of High-tech Industrialization
 21. Manufacturing of auto parts and components: turbocharged direct injection gasoline engines and clean and efficient diesel engines/driving system parts and components (clutch, absorber and dual mass flywheel) in compliance with China VI emission standards or higher emission standards, automatic transmissions with six gears or more (AT, DCT, AMT), seats, drive shaft, parts and



components of electric steering systems, special engines/transmissions for new energy vehicles; power lithium batteries, driver motors, electric control systems, electric braking, electric meters, energy recovery systems, electric air conditioning, remote monitoring systems, and other key parts and components for new energy vehicles; transmission/safety/vehicle body/driving/information control systems, advanced driver assistance systems (ADAS), automatic driving control systems, and other key parts and components of intelligent vehicles; DPF, GPF, SCR, and other engine post-processing systems, alternative fuel engine ECU control strategies and hardware and software, lightweight chassis and body; application of lightweight materials (high-strength steel, aluminum-magnesium alloy, composite plastics, powder metallurgy, high-strength composite fibers, etc.), construction of industry common technology platforms (automobile wind tunnels, lightweighting, global research and development centers, etc.), etc.

22. Research, development, production, and application of energy storage technology (including pumped storage, electrochemical energy storage, compressed air energy storage, flywheel energy storage, hydrogen energy storage, thermal energy storage, etc.)

23. Research, development, and manufacturing of natural gas distributed energy gas turbines and internal combustion engines

24. Manufacturing of solar energy power generation equipment and their parts and components

25. Manufacturing of large digital integrated circuits with a line width of less than 0.25 microns

26. Technological development and production of computer, smart phones, household appliances, smart home, and other intelligent terminal products, and their parts and components

27. Production and application of electronic special gas, compound semiconductors, and electronic chemicals used for the manufacturing of display screens and chips

28. Development and production of new medical apparatus and equipment, medical materials, equipment for rehabilitation and key components

29. Research, development, and manufacturing of high-voltage direct current and converter transformers of 500 kilovolt or more

30. Production of complete unit of energy-efficient and environment-friendly household appliances with third-level energy efficiency, compressor, electric motor, frequency converter, LD panel, and other key parts and components and development of wireless power transmission, glasses-free 3D, somatic input, and other new technologies

31. Research, development, and manufacturing of the upstream and downstream products of



semiconductor lighting materials and related equipment

32. Recycling of carbon dioxide and preparation and application of carbon monoxide and other special industrial gases

33. Research, development, and application of FINEX technology and high-speed and endless rolling

34. Manufacturing of high-precision and high-reliability process measurement instruments and intelligence sensor

35. New circulation industries such as commercial chain operations and cross-regional agency operations

36. Broadband services and value-added telecommunications services (limited to telecommunications services to be open based on China's commitments upon accession to the WTO)

37. Compliance rectification of parallel imported vehicles

38. Application of third-party technology platforms for the research, development, and production of drugs and medical apparatus

39. Institutions of higher learning

40. Construction and operation of pipe networks for urban gas supply, heating power, and water supply and drainage

41. Digital creativity, animation creation, production, and development of derivatives (not involving online audio and video program services)

42. Operation of travel agencies, the protection, development, and operation of tourist attractions (spots) and construction of their supporting facilities

43. Financial technology product research and development, application, and service output of financial institutions

44. Small loan financial services for agriculture, rural areas, and farmers, micro and small enterprises, and individual industrial and commercial households

45. Integrated buildings with solar thermal utilization and photovoltaic power generation application, research, development, and promotion of energy-saving buildings, green buildings, and prefabricated building technologies and products, urban landscaping, and construction of ecological communities



Sichuan Province

1. Development of characteristic industries of agriculture, forestry, animal husbandry, and fishery, technology research and development, product processing and export (including traditional Chinese medicines, sweet potatoes, lemons, tea, fruit wine, etc.)
2. Development and application of water-saving irrigation and dry farming water-saving technologies and conservation tillage technologies
3. Exploration, exploitation, and beneficiation of marine shale and lacustrine shale in the upstream oil and gas regions where mining rights are not claimed (especially in the Sichuan Basin), and development and application of shale oil and gas technologies
4. Production of drinking natural mineral water
5. Beer manufacturing industry
6. Processing and production of high-grade textiles, knits, and garments made of cotton, wool, hemp, silk, and chemical fiber, as well as research, development, and testing of related products
7. Manufacturing of leather shoes, sports shoes, and other finished products of shoes
8. Development and production of stationery, toys, teaching aids, suitcases and bags
9. Manufacturing of equipment for heavy-duty corrugated boards and cartons
10. Design and manufacturing of wood, bamboo, rattan, metal and plastic furniture
11. Research, development, and manufacturing of sports products and related products
12. Development and production of innovative application products made of polyurethane main raw materials and composite materials, high-performance and high value-added polyurethane, engineering plastics and downstream new materials
13. Deep processing of crude drugs, API, and Chinese patent drugs, and planting, breeding, and processing of characteristic Chinese medicinal materials (containing no confidential prescriptions)
14. Research, development, and production of biomedicine and pharmaceutical intermediates and biological agents
15. Development and production of high-end mechanical equipment and medical materials
16. Manufacturing of high-end medical apparatus and biomedical manufacturing
17. Production of drugs for malignant tumors, cardiovascular and cerebrovascular diseases, neurodegenerative diseases, diabetes, autoimmune diseases, blood system, and other major diseases
18. Production of preventive vaccines against epidemic respiratory diseases, hepatitis, and other



major infectious diseases, and new vaccines against tumor, cardiovascular and cerebrovascular diseases

19. Research, development, and manufacturing of new technologies and new products for the comprehensive utilization of vanadium and titanium resources

20. Intensive processing of titanium alloy

21. Production and development of downstream chemical products of natural gas (excluding those included in the categories where foreign investment is restricted or prohibited in the Policies on the Utilization of Natural Gas)

22. Production of fluorine-containing fine chemicals and high-quality fluorine-containing inorganic salts

23. Technological development and deep processing of high-quality float glass of special varieties (ultra-clear, ultra-thin, online Low-E, hollow, and ultra-thick)

24. Research, development, and manufacturing of graphene, carbon fibers (including composite materials), and other carbon-based materials, and manufacturing of end products

25. High-end application and intensive processing of graphite

26. Production and manufacturing of cable harnesses (including high-end automobile cable harnesses, industrial wiring harnesses, LVDS connecting wires, cables, and supporting polymer materials, etc.)

27. Development and production of silicon materials and new crystalline silicon photovoltaic materials

28. Production, technology and equipment development of special ceramics applied in such fields as industry, medicine, electronics, and aerospace; development of technologies for cleaner production and comprehensive utilization of ceramics

29. Manufacturing of 3D on-board cover plate glass (protective materials of interior display screens)

30. Processing of lithium resources and research, development, and manufacturing of related lithium products

31. Research, development, and production of high-end diagnosis and treatment complete machines such as new chemoradiotherapy, medical robots, and new digital medical imaging equipment

32. Research, development, and manufacturing of energy-saving and low-temperature household grain storage equipment



33. Research, development, manufacturing, inspection, and testing of large amusement facilities
34. Manufacturing of complete automobiles and manufacturing of special purpose vehicles (excluding ordinary semi-trailers, dumpers, tank trucks, van vehicles, and box/stake trucks) (which shall be governed by the Provisions on the Administration of Investment in the Automobile Industry)
35. Production of high-performance radial tires: tubeless radial truck tires, passenger car radial tires (15 inches or more) of low section, aspect ratio (less than 55 series), big wheel felloes and high performance, aircraft tires, and agricultural radial tires
36. Development and manufacturing of auto parts and components and automobile electronic devices: automatic transmission with six or more gears, high-power and density driving axles for commercial vehicles, adaptive front-lighting systems, LED front-lighting, application of lightweight materials (high-strength steel, aluminum magnesium alloy, composite plastics, powder metallurgy, high-strength composite fibers, etc.), clutches, hydraulic shock absorbers, central control panel assembly, seats, products related to the common rail fuel injection system, turbocharged engines, motors and control systems, and active safety and automatic driving control systems
37. Hydraulic excavators with the capacity of 30 tons or more, full-section tunnelers of six meters or more, crawler bulldozers of 320 horsepower or more, loaders with the capacity of six tons or more, bridging equipment with the capacity of 600 tons or more (including bridge girder-erecting machine, girder transporter, and girder crane), crawler cranes with the capacity of 400 tons or more, all-terrain cranes with the capacity of 100 tons or more, drill jumbo capable of drilling 100 millimeters or more, concrete heat and hot regeneration equipment of 400 kilowatts or more, milling machines of one meter or more in width; key parts and components: power shift gearbox, wet drive axle, slewing bearing, hydraulic torque converter, supporting electric machine and electric control for electric forklift, hydraulic motor, pump and control valve with the pressure of 25MPa or more
38. Manufacturing of solar energy power generation equipment and their parts and components
39. Development and production of all-vanadium redox flow batteries
40. Research, development, production, and application of energy storage technology (including pumped storage, electrochemical energy storage, compressed air energy storage, flywheel energy storage, hydrogen energy storage, thermal energy storage, etc.)
41. Research, development, and manufacturing of high-temperature components and control



- systems for large and heavy gas turbines of 3,000KW or more
42. Research, development, and manufacturing of the upstream and downstream products of semiconductor lighting materials and related equipment
 43. Development and production of precision electronic plastic injection products
 44. Manufacturing of LCD TV, digital TV, energy-efficient and environment-friendly refrigerators, smart washing machines, and other high-end household appliances
 45. Technological development and production of smart phones, tablet PCs, and other intelligent terminal products, and their key parts and components
 46. Development and production of materials used in electronic products such as semiconductors, optoelectronic devices, and new types of electronic components
 47. Manufacturing of new electronic components: manufacturing of high-speed, sensitive electronic (electron) connector
 48. Development and production of apparatus and equipment used for medical and rehabilitation purposes and their key 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 wastes, and mines that are of low quality, complicated and difficult to dispose of
 52. Manufacturing of industrial process automatic control systems and devices: fieldbus control systems, programmable logic controller (PLC), two-phase flow meters, solid flow meters, new-type sensors, and field measuring meters
 53. New circulation industries such as commercial chain operations and cross-regional agency operations
 54. Broadband services and value-added telecommunications services (limited to telecommunications services to be open based on China's commitments upon accession to the WTO)
 55. Companies engaging in the highway transport of passengers
 56. General airlines for sightseeing and sports aviation
 57. Health consulting, health management, medical knowledge, and other medical information services
 58. Construction and operation of pipe networks for urban gas supply, heating power, and water



supply and drainage

59. Animation creation and production and derivative development

60. Industrialized development of artistic performance training, intermediary services, cultural supplies and equipment, etc.

61. Protection, development, and operation of tourist attractions (spots) and construction of their supporting facilities

62. Development of health tourism

63. Development of digital recreation and sports tourism, healthcare and elderly care and sports tourism, music tourism, and other products

Guizhou Province

1. Planting, development, cultivation, sales, and deep processing of tea and breeding and promotion of new varieties

2. Development of planting and cultivation technologies of selenium-enriched agricultural products (excluding grain crops); development and production of selenium-enriched agricultural products and food (excluding grain crops)

3. Blueberry planting, development, cultivation, sales, and deep processing, and cultivation and promotion of new varieties

4. Planting and processing of characteristic medicinal plants and development of new pharmacy technologies

5. Subsequent industrial development of national key ecological projects, such as returning farmland to forests and grassland and protection of natural forests

6. Development and application of water-saving irrigation and dry farming water-saving technologies

7. Deep processing of potatoes, konjac, and other products

8. Deep processing of livestock and poultry, chilli, tartary buckwheat, yam, and walnut

9. Processing and production of high-grade textiles, knits, and garments made of cotton, wool, hemp, silk, and chemical fiber, as well as research, development, and testing of related products

10. Research, development, and manufacturing of sports products and related products

11. Needle coke production and crude benzene intensive processing industries



12. Construction and operation of technological renovation projects in optimization and energy saving of fixed-layer synthetic ammonia plant by using advanced technology
13. Development of new energy by using methanol to develop M100 new-type power fuel and tail gas from synthesis ammonia production
14. Development of technical-grade and food-grade carbon dioxide utilizing carbon dioxide emissions from industrial production
15. Production of adipic acid
16. Construction and operation of coal-making synthesis ammonia and supporting urea programs with the capacity of 300,000 tons or more per year by using advanced technology
17. Development, protection, and sustainable utilization of animal and plant herb resources
18. Technological development and deep processing of high-quality float glass of special varieties (ultra-clear, ultra-thin, online Low-E, hollow, and ultra-thick)
19. Intensive processing of aluminum and other nonferrous metals
20. Development of high-performance aluminum alloy series products
21. Development and application of new short-process steel smelting technology
22. Development and application of non-blast furnace smelting technology (direct-reduction process)
23. Production of grinding materials and grinding tool products
24. Development of new-type rock drilling tools and production of steel materials used therefor
25. Manufacturing of production equipment for wine and tea
26. Processing of positive and negative electrode materials of new energy batteries (processing of lithium iron phosphate and lithium hexafluorophosphate)
27. Research, development, and production of upstream and downstream products of semiconductor lighting materials and related equipment
28. Research, development, and production of power lithium battery materials
29. Manufacturing of complete automobiles and manufacturing of special purpose vehicles (excluding ordinary semi-trailers, dumpers, tank trucks, van vehicles, and box/stake trucks) (which shall be governed by the Provisions on the Administration of Investment in the Automobile Industry)
30. Manufacturing of auto parts and components: automatic transmission with six gears or more, high-power and density drive axles for commercial vehicles, adaptive front-lighting systems, LED



front-lighting, application of lightweight materials (high-strength steel, aluminum-magnesium alloy, composite plastics, powder metallurgy, high-strength composite fibers, etc.), clutches, hydraulic shock absorbers, central control panel assembly, and seats

31. Development and manufacturing of distinctively advantageous special engineering machinery, bridge and paving machinery, crushers, hydraulic basic parts, numerical control machines, energy-efficient and environment-friendly equipment, gas turbine products of 4MW or below, etc.

32. Development and production of compound permanent magnet motor pumping unit series products

33. Production and manufacturing of micro motors

34. Development and manufacturing of special equipment and products for mining, tunneling, lifting and underground transportation, etc. under complicated geological conditions

35. Development and manufacturing of agricultural machinery suited for western mountainous areas that are lightweight, durable, and low-loss small and medium-sized equipment for plowing, planting, harvesting, plant protection, water-saving irrigation, small-scale drought resistance, grain and oil crops, tea and characteristic agricultural products, etc.

36. Manufacturing of solar energy power generation equipment and their parts and components

37. Broadband services and value-added telecommunications services (limited to telecommunications services to be open based on China's commitments upon accession to the WTO)

38. Companies engaged in the highway transportation of passengers

39. Performance brokerage institutions

40. Construction and operation of pipe networks for urban gas supply, heating power, and water supply and drainage

41. Comprehensive protection of the Moutai ecological belt and application of remote sensing technology in the Chishui River basin

42. Protection, development, and operation of tourist attractions (spots) and construction of their supporting facilities

43. Production of articles specially needed by ethnic minorities, arts and crafts, silver jewelery, embroideries, batik, and other special handicrafts and tourist souvenirs

44. Development of healthcare and elderly care tourism



Yunnan Province

1. Planting, development, cultivation, sale, and deep processing of coffee, tea, camellia, and tung tree and breeding and promotion of new varieties
2. Development and application of new-type natural rubber
3. Natural spices and flavors production technology development and manufacturing
4. Subsequent industrial development of national key ecological projects, such as returning farmland to forests and grassland and protection of natural forests
5. Plateau lake protection and pollution control
6. Development and application of water-saving irrigation and dry farming water-saving technologies
7. Development and operation of rural homestay and leisure agriculture and construction of their supporting facilities
8. Universal power platform in hilly and mountainous areas and research, development, and manufacturing of supporting agricultural machinery for cultivation, transplanting, intertilling, plant protection, and harvesting
9. Highland grape breeding, planting, and production, and wine making
10. Beer manufacturing industry
11. Intensive processing of nonferrous metals
12. Planting and deep processing of fruits, nuts, oil-containing fruits, spices, and beverage crops
13. Intensive processing of cane sugar with the daily processing of sugarcane of 3,000 tons or more and comprehensive utilization of by-products such as waste molasses, bagasse, cane leaves, filter mud, and waste fluid from alcohol
14. Development and production of nutritious food and health food
15. Development and application of characteristic edible resources
16. Processing and development of fiberflax in line with ecological and environmental protection requirements and comprehensive utilization of their by-products
17. Production of biological liquid fuel (fuel ethanol and biodiesel) using cassava, coral plant, rubber seed, and other non-grain plants as raw materials
18. Processing and production of high-grade textiles, knits, and garments made of cotton, wool, hemp, silk, and chemical fiber, as well as research, development, and testing of related products



19. Development and production of shoes and hats, toys, wigs, suitcases and bags, and leather goods
20. Development, protection, and sustainable utilization of animal and plant medicinal resources
21. Production of high-end furniture using overseas wood and rattan as raw materials
22. Research, development, and manufacturing of sports products and related products
23. Packaging, decoration, and other printing
24. Production of items specially needed by ethnic minorities, specialty handicrafts, and packaging containers and materials
25. Biomedical technology development and production
26. Deep processing of crude drugs, API, and Chinese patent drugs, processing of traditional Chinese medicines and extraction of biological components, production of characteristic API and intermediates, production of overseas traditional Chinese medicines and chemical generic drugs (containing no confidential prescriptions)
27. Technological development and deep processing of high-quality float glass of special varieties (ultra-clear, ultra-thin, online Low-E, hollow, and ultra-thick)
28. Production, intensive processing, and application of green aluminum, green silicon, and green titanium
29. Development and production of distinctively advantageous special engineering machinery, numerical control machines, and energy-saving and environment-friendly equipment
30. Manufacturing of biomass power generation equipment
31. Manufacturing of the equipment for power generation by solar energy and wind power, and their parts and components
32. Research, development, and manufacturing of green agriculture energy-saving and environment-friendly intelligent agricultural machinery equipment (agricultural product cleaning, grading and sorting, drying, packaging, and other agricultural machinery equipment)
33. Research, development, and manufacturing of mechanized and integrated support for efficient plant protection, drying at the place of origin, intensive processing, straw treatment, and other links, and plowing, sowing, and harvesting links
34. Manufacturing of complete automobiles and manufacturing of special purpose vehicles (excluding ordinary semi-trailers, dumpers, tank trucks, van vehicles, and box/stake trucks) (which shall be governed by the Provisions on the Administration of Investment in the Automobile



Industry)

35. Integrated treatment of solid wastes from limestone mines
36. Production and manufacturing of telecommunications equipment, intelligent terminals, and parts and components for the fourth and fifth generations and subsequent mobile communication systems, and technological research and development and technical services for related software and hardware
37. Production and manufacturing, technological research and development and technical services for software and hardware systems, equipment, and parts and components related to new data centers
38. Production and manufacturing, technological research and development, and technical services for hardware and software systems, equipment, and parts and components related to the Internet of Things
39. Cross-border logistics and cold chain logistics
40. Broadband services and value-added telecommunications services (limited to telecommunications services to be open based on China's commitments upon accession to the WTO)
41. New circulation industries such as commercial chain operations and cross-regional agency operations
42. Research, development, production, and application of energy storage technologies (including pumped storage, electrochemical energy storage, compressed air energy storage, flywheel energy storage, hydrogen energy storage, thermal energy storage, etc.)
43. Development and operation of sightseeing agriculture and leisure agriculture and construction of their supporting facilities
44. Performing arts training, intermediary services, and development of ecotourism resources
45. Protection, development, and operation of tourist attractions (spots) and construction of their supporting facilities
46. Construction of cultural performance venues and performance agencies
47. Development of healthcare and medical care tourism

Tibet Autonomous Region



1. Planting, breeding, production, and processing of agricultural and livestock products with plateau characteristics (highland barley, cattle, sheep, etc.)
2. Planting and deep processing of forage feeds and crops
3. Subsequent industrial development of national key ecological projects, such as returning farmland to forests and grassland and protection of natural forest
4. Development and application of water-saving irrigation and dry farming water-saving technologies
5. Development and utilization of salt lake resources
6. Production of drinking natural mineral water
7. Deep processing of yak wool, cashmere, and leather products and production of Tibetan carpets
8. Construction and operation of flower and nursery bases
9. Research and development of cultivation technology of undergrowth resources under tree crowns and deep processing of undergrowth products
10. Development and utilization of new technologies for highland barley, pasture, and other crops
11. Development, utilization, production, and processing of plateau special food resources
12. Deep processing of crude drugs, API, and Chinese patent drugs (containing no confidential prescriptions)
13. Production of new varieties and dosage forms of Tibetan drugs
14. Production of items specially needed by ethnic minorities, arts and crafts, packaging containers and materials, glass products for daily use, and characteristic tourist commodities and souvenirs
15. Manufacturing of environmental protection equipment and application of solutions
16. Manufacturing of solar, geothermal, and wind energy power generation equipment and their parts and components
17. Production and processing of new medical apparatus and equipment and medical materials
18. Restoration and reconstruction projects of the ecosystem in mining areas
19. Broadband services and value-added telecommunications services (limited to telecommunications services to be open based on China's commitments upon accession to the WTO)
20. Companies engaged in the highway transportation of passengers
21. Commercial network construction, warehousing and logistics infrastructure construction, commercial chain operations, cross-regional agency operations, and other circulation industries



22. Research, development, production, and application of energy storage technologies (including pumped storage, electrochemical energy storage, compressed air energy storage, flywheel energy storage, hydrogen energy storage, thermal energy storage, etc.)
23. Construction and operation of pipe networks for urban gas supply, heating power, and water supply and drainage
24. Development and operation of sightseeing agriculture and leisure agriculture and construction of their supporting facilities
25. Protection, development, and operation of tourist attractions (spots) and construction of their supporting facilities
26. Development of hot spring resources and construction of hot spring resorts

Shaanxi Province

1. Seed selection and breeding of new crop varieties and seed production
2. Planting of minor grain crops, potatoes, sweet potatoes, chilli, tartary buckwheat, yam, and walnuts and development, production, and deep processing of their products
3. Development of selenium-enriched agricultural products (excluding grain crops)
4. Construction of production bases as per Good Agricultural Practice for Chinese Crude Drugs (GAP)
5. Subsequent industrial development of national key ecological projects, such as returning farmland to forests and grassland, protection of natural forests, and water source protection
6. Development and application of water-saving irrigation and dry farming water-saving technologies and conservation tillage technologies and technologies of protected agriculture
7. Processing and production of high-grade textiles, knits, and garments made of cotton, wool, hemp, silk, and chemical fiber, as well as research, development, and testing of related products
8. Development, protection, and sustainable utilization of animal and plant medicinal resources
9. Coal utilization: production of methanol-olefin from coal and downstream aromatic hydrocarbon monoethylene glycol polyester from coal
10. Production of coal liquefied oil making products and chemical products
11. Development and utilization of downstream chemical products of natural gas (excluding those included in the categories where foreign investment is restricted or prohibited in the Policies on the



Utilization of Natural Gas)

12. Biomedical technology development and production
13. Technological development and deep processing of high-quality float glass of special varieties (ultra-clear, ultra-thin, online Low-E, hollow, and ultra-thick)
14. Production and processing of vanadium alloy products
15. Intensive processing of aluminum, magnesium, and titanium metal
16. Production of special antibacterial drug substance for animals (including antibiotics and chemically synthesis) and animal vaccines
17. Production of high-speed and precision numerical control machines with the simultaneous motion of five axes or more and auxiliary numerical control systems, servo motors and driving devices, functional components, cutting tools, measuring tools, measuring instruments, as well as high-grade grinding tools and grinding materials
18. Production and processing of new mechanical instruments and equipment and medical materials
19. Research, development, and production of epidemic prevention and protection products and their production equipment
20. Manufacturing of the control equipment for power distribution switching
21. Design and manufacturing of turbine installation for blast-furnace gas energy recovery
22. Manufacturing of complete automobiles and manufacturing of special purpose vehicles (excluding ordinary semi-trailers, dumpers, tank trucks, van vehicles, and box/stake trucks) (which shall be governed by the Provisions on the Administration of Investment in the Automobile Industry)
23. Manufacturing of auto parts and components: medium and heavy engines that meet Phase VI or above emission standards, high power density driving axles, adaptive front-lighting systems, LED front-lighting, clutches, hydraulic shock absorbers, central control panel assembly, seats, and application of lightweight materials for commercial vehicles
24. Research and development of high voltage transmission and transformation and control equipment
25. Research, development, and production of integrated circuits and production equipment
26. Technological development and production of smart phones, tablet PCs, and other intelligent terminal products, and their key parts and components
27. Production of flexible displays and display materials



28. Research, development, and production of touch displays and communication terminal products and their parts and components
29. New circulation industries such as commercial chain operations and cross-regional agency operations
30. Broadband services and value-added telecommunications services (limited to telecommunications services to be open based on China's commitments upon accession to the WTO)
31. Companies engaged in the highway transportation of passengers
32. Conference and exhibition planning and preparation and relevant services
33. Institutions of higher learning
34. Animation creation and production and derivative development
35. Construction and operation of pipe networks for urban gas supply, heating power, and water supply and drainage
36. Operation of the sports competition (excluding electronic sports) as well as sports, fitness, and leisure services
37. Development and operation of sightseeing agriculture and leisure agriculture, and construction of their supporting facilities
38. Healthcare and leisure services, leisure tourism, and other leisure industries
39. Travel agencies
40. Protection, development, and operation of tourist attractions (spots) and construction of their supporting facilities
41. Projects such as intensive resource processing and alternative industries in resource-exhausted cities

Gansu Province

1. Development and application of water-saving irrigation and dry farming water-saving technologies and conservation tillage technologies
2. Development and production of fruit, vegetable, and flower seeds
3. Large-scale standardized planting, breeding, and deep processing of characteristic agricultural and livestock products with cold and dry advantageous agricultural features on the modern Silk



Road

4. Wood processing by using overseas resources
5. Planting, cultivation, and processing of characteristic traditional Chinese medicines and construction of production bases as per Good Agricultural Practice for Chinese Crude Drugs (GAP)
6. Development and utilization of downstream chemical products of natural gas (excluding those included in the categories where foreign investment is restricted or prohibited in the Policies on the Utilization of Natural Gas)
7. Extended processing of petroleum and chemical industries
8. Comprehensive utilization of the waste gas, waste liquid, and waste residue of pharmaceutical and chemical raw materials
9. Research, development, and production of epidemic prevention and protection products and their production equipment
10. Research, development, and production of biomedicine and pharmaceutical intermediates and biological agents
11. Development and production of medical equipment and key components
12. Research, development, and manufacturing of the production equipment (meteorological precipitation, carbide sintering, etc.) for graphene, carbon fibers (composite materials), and other carbon-based materials and manufacturing of end products
13. Intensive processing of aluminum, copper, nickel, and other nonferrous metals
14. Production of high-tech nonferrous metal materials and their products: aluminum foil for lithium battery electrode, electrolytic copper foil, and high-performance copper-nickel
15. Processing of titanium alloys
16. Manufacturing of high-density, high-precision and complex-shaped powder metallurgical parts and chains used for automobiles and engineering machinery, etc.
17. Manufacturing of oil drilling or refining equipment and other high-end equipment
18. Manufacturing of complete automobiles and manufacturing of special purpose vehicles (excluding ordinary semi-trailers, dumpers, tank trucks, van vehicles, and box/stake trucks) (which shall be governed by the Provisions on the Administration of Investment in the Automobile Industry)
19. Manufacturing of stainless steel products
20. Development of high-performance aluminum alloy series products



21. Development and application of new short-process iron and steel smelting technologies
22. Development and production of lithium-ion batteries
23. Integrated circuit research and development, packaging, and testing
24. Production, research, and development of numerical control machines and metal cutting machines
25. Manufacturing of self-lubricating bearings, various mechanical bearings and their parts and components
26. Production of electrical equipment for high, medium, and low voltage transmission and distribution
27. Manufacturing of auto parts and components: automatic transmission with six gears or more, high-power and density drive axles for commercial vehicles, adaptive front-lighting systems, LED front-lighting, application of lightweight materials (high-strength steel, aluminum-magnesium alloy, composite plastics, powder metallurgy, high-strength composite fibers, etc.), clutches, hydraulic shock absorbers, central control panel assembly, and seats
28. Solar energy and wind energy power generation and equipment manufacturing industry
29. New circulation industries such as commercial chain operations and cross-regional agency operations
30. Animation creation and production and derivative development
31. Construction and operation of pipe networks for urban gas supply, heating power, and water supply and drainage
32. Construction of sports venues and facilities, operation of sports events (excluding electronic sports), and sports, fitness, and leisure services
33. Healthcare and leisure services, leisure tourism, and other leisure industries
34. Protection, development, and operation of tourist attractions (spots) and construction of their supporting facilities

Qinghai Province

1. Protection, cultivation, breeding, processing and utilization of plateau animal and plant resources
2. Planting and deep processing of Chinese wolfberries, highland barley, etc.
3. Processing of feeds



4. Subsequent industrial development of national key ecological projects, such as returning farmland to forests and grassland, returning grazing land to grassland, protection of natural forests, soil and water conservation, and integrated management of water ecology
5. Development and application of water-saving irrigation and dry farming water-saving technologies, conservation tillage technologies, technologies of protected agriculture, and technologies of photovoltaic agriculture
6. Construction of organic natural agricultural and livestock product bases and intensive processing of products
7. Design and production of characteristic handicrafts, arts and crafts, and tourist souvenirs
8. Production of long-life, energy-saving, and environment-friendly refractory materials
9. Quartz, gypsum, and other advantageous nonmetallic mineral products and deep-processed products (excluding prospecting and exploitation)
10. Intensive processing of copper, aluminum, magnesium, and other nonferrous metals
11. Intensive processing of titanium metal
12. Intensive processing of nickel metal
13. Research, development, and production of aluminum, magnesium, titanium, lithium, and nickel base and other new metal alloy materials
14. Production of new varieties and dosage forms of traditional Chinese medicines and Tibetan drugs
15. Technological development and deep processing of high-quality float glass of special varieties (ultra-clear, ultra-thin, online Low-E, hollow, and ultra-thick)
16. Production of polyformaldehyde, polyphenylene sulfide, and other engineering plastics
17. Downstream intensively processed products of alkene
18. Resource utilization of industrial tailings, industrial wastes, and mines that are of low quality, complicated, and difficult to dispose of
19. Manufacturing of complete automobiles and manufacturing of special purpose vehicles (excluding ordinary semi-trailers, dumpers, tank trucks, van vehicles, and box/stake trucks) (which shall be governed by the Provisions on the Administration of Investment in the Automobile Industry)
20. Research, development, and manufacturing of the upstream and downstream products of semiconductor lighting materials and related equipment



21. Manufacturing of the equipment for power generation by solar energy and wind power, and their parts and components
22. Development and application of photovoltaic power generation system integration technology
23. Production of lithium products as well as research, development, and manufacturing of special equipment
24. Broadband services and value-added telecommunications services (limited to telecommunications services to be open based on China's commitments upon accession to the WTO)
25. Companies engaged in the highway transportation of passengers
26. Construction and operation of water conservancy projects
27. Construction and operation of pipe networks for urban and rural gas supply, heating power, and water supply and drainage
28. New circulation industries such as commercial chain operations and cross-regional agency operations
29. Construction of sports venues and facilities, operation of sports events (excluding electronic sports) as well as sports, fitness, and leisure services
30. Protective development and operation of ecotourism resources and construction of their supporting facilities

Ningxia Hui Autonomous Region

1. Production of potato seeds
2. Development and production of fruit, vegetable, and flower seeds
3. Subsequent industrial development of national key ecological projects, such as returning farmland to forests and grassland, returning grazing land to grassland, and protection of natural forests
4. Development and application of water-saving irrigation and dry farming water-saving technologies and conservation tillage technologies
5. Planting and deep processing of Chinese wolfberries, grapes, potatoes, minor grain crops, etc.
6. Traditional Chinese medicines growing in deserts, ecological economic forests in desert areas, melons and fruits in desert areas, protected agriculture in desert areas, building materials in desert



areas, new energy in desert areas, tourism and recreation in desert areas, and other desert industries

7. Processing of feeds
8. Deep processing of milk protein, casein, and other high-end dairy products
9. Processing and production of high-grade textiles, knits, and garments made of cotton, wool, hemp, silk, and chemical fiber, as well as research, development, and testing of related products
10. Creative design and production of tourist handicrafts
11. Development and production of high-performance silicone oil, silicone rubber, resin, high-quality fluororesin, high-performance fluororubber, fluorine-containing fine chemicals, high-quality fluorine-containing inorganic salts, etc.
12. Development and production of carbon-based materials and carbon fiber
13. Manufacturing of spandex fiber
14. Intensive processing of tantalum, niobium, and other rare metal materials
15. Research, development, and production of aluminum alloy, magnesium alloy, silicon and manganese alloy, and other new materials
16. Development and production of green electrode paste and cold ramming paste
17. Manufacturing of batteries and special-purpose electronic materials
18. Manufacturing of liquid crystal display materials and organic electroluminescence display materials
19. Production of high-performance radial tires: whole-steel radial tires, tubeless radial truck tires, passenger car radial tires (15 inches or more) of low section, aspect ratio (less than 55 series), big wheel felloes and high performance, aircraft tires, and agricultural radial tires
20. Manufacturing of complete automobiles and manufacturing of special purpose vehicles (excluding ordinary semi-trailers, dumpers, tank trucks, van vehicles, and box/stake trucks) (which shall be governed by the Provisions on the Administration of Investment in the Automobile Industry)
21. Production of high-speed and precision numerical control machines with the simultaneous motion of three axes or more and auxiliary numerical control systems, servo motors and driving devices, functional components, cutting tools, measuring tools, measuring instruments, as well as high-grade grinding tools and grinding materials
22. Integrated mining equipment for mines with the annual production of five million tons or more and thin coal seams, and key equipment for large open-pit mines with the annual production of ten



million tons or more

23. Research, development, and production of intelligent machines for picking Chinese wolfberries
24. Construction and operation of solar power systems and wind farms
25. Technological development of special environment automatic control, intelligent devices, instruments and valves
26. Broadband services and value-added telecommunications services (limited to telecommunications services to be open based on China's commitments upon accession to the WTO)
27. Companies engaged in the highway transportation of passengers
28. International multimodal transport of goods, highway, railway and sea multimodal transport, international road transport of goods, and international logistics supply chain management
29. Institutions of higher learning
30. Travel agencies
31. Construction and operation of pipe networks for urban gas supply, heating power, and water supply and drainage
32. Healthcare and leisure services, tourism, leisure, vacation, and other leisure industries
33. Protection, development, and operation of tourist attractions (spots) and construction of their supporting facilities

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

1. Modernized and standardized breeding of beef cattle and mutton sheep
2. Development and operation of leisure agriculture and construction of supporting facilities
3. Subsequent industrial development of national key ecological projects, such as returning farmland to forests and grassland, returning grazing land to grassland, and protection of natural forests
4. Development and application of water-saving irrigation and dry farming water-saving technologies, conservation tillage technologies, protected agriculture, and organic agriculture
5. Planting and deep processing of high-quality tomatoes, beets, pears, grapes, watermelons and melons, red dates, walnuts, apricots, pomegranates, chilli, Chinese wolfberries, and other agricultural products of high quality and specialty



6. Processing of grape by-products (grape leaves, grape seeds, etc.)
7. Construction of high-quality wine grape bases (supply bases of raw grape wine and distilled grape wine) and production of grape wine (dry wine, ice wine, and traditional Msalais wine)
8. Production of high-grade nutrition formula, quality industrial milk powder, cheese, casein, butter, condensed milk, yogurt, and other solid and semi-solid dairy products
9. Processing of feeds
10. Planting of flax, sea-buckthorn, lavender, and rose and production of their products
11. Manufacturing of spare parts and accessories in the textile and garment industry
12. Processing and production of high-grade textiles, knits, and garments made of cotton, wool, hemp, silk, and chemical fiber, as well as research, development, and testing of related products
13. Development and production of shoes and hats, toys, wigs, suitcases and bags, and leather goods
14. Comprehensive utilization (excluding exploration and development) of marble, aventurine, vermiculite, mica, asbestos, magnesite, limestone, andalusite, stone, and other nonmetallic ores
15. High-end application and deep processing of graphite
16. Development of coal processing and application technologies
17. Comprehensive utilization of associated oil and gas resources
18. Recovery and utilization of vented natural gas
19. Planting and processing of characteristic medicinal plants and development of new pharmacy technologies
20. Production of items specially needed by ethnic minorities, arts and crafts, materials for packaging containers and glass products for daily use, handmade carpets, jade carvings, national embroideries, and other characteristic handicrafts and tourist souvenirs
21. Production and processing of new types of medical apparatus and equipment and medical materials
22. Technological development and deep processing of high-quality float glass of special varieties (ultra-clear, ultra-thin, online Low-E, hollow, and ultra-thick)
23. Research, development, and production of new aluminum-based, silicon-based, and polymer film materials
24. Intensive processing of copper, zinc, aluminum, and other nonferrous metals
25. Manufacturing of the processing equipment for agricultural by-products



26. Production of intelligent modern agricultural equipment and supporting agricultural machinery
27. Manufacturing of professional shearing machinery, including: flexible shaft shearing machine, rigid shaft shearing machine, electric shearing machine and supporting shearing blades and their parts and components
28. Assembly of electronic components, mobile phones, smart wearables, computer peripherals, and other electronic products
29. Manufacturing of environmental protection equipment and application of related solutions
30. Manufacturing of complete automobiles and manufacturing of special purpose vehicles (excluding ordinary semi-trailers, dumpers, tank trucks, van vehicles, and box/stake trucks) (which shall be governed by the Provisions on the Administration of Investment in the Automobile Industry)
31. Development and production of special equipment for the processing of coarse cereals
32. Manufacturing of the equipment for power generation by solar energy and wind power, and their parts and components
33. Manufacturing of special equipment for oil exploitation and mining, etc.
34. Manufacturing of smart grid equipment and complete sets of electric control system equipment
35. Manufacturing of small snow clearing equipment
36. Comprehensive utilization of solid wastes of ferrous metallurgy, comprehensive utilization of desulfurized gypsum, fly ash and carbide slag and products, and manufacturing of complete sets of equipment for sewage purification treatment
37. Comprehensive utilization of the waste gas, waste liquid, and waste residue of chemical raw materials
38. Broadband services and value-added telecommunications services (limited to telecommunications services to be open based on China's commitments upon accession to the WTO)
39. Companies engaged in the highway transportation of passengers
40. New circulation industries such as commercial chain operations and cross-regional agency operations
41. Operational leasing of machinery and equipment
42. Construction and operation of pipe networks for urban gas supply, heating power, and water supply and drainage



43. Travel agencies
44. Development of health care and medical tourism
45. Protection, development, and operation of tourist attractions (spots) and construction of their supporting facilities
46. Production of snow sports and tourism supplies
47. Desert economic industries such as desert tourism, desert healthcare and elderly care, ecological agriculture in desert areas, and building materials in desert areas