Preparation Instructions on Green Bond Endorsed Project Catalogue (2015 Edition)

The Integrated Reform Plan for Promoting Ecological Progress issued by CPC Central Committee and the State Council on September 21, 2015, for the first time clearly stated to initiate the top-level design for the national green financial system, of which developing green bond market is an essential part. In the spirit of strategic planning of CPC Central Committee and the State Council, for the purpose of promoting green bond market, and of exploiting new, efficient and low-cost financing channels, Green Finance Committee of China Society of Finance and Banking (hereinafter referred to as "the Committee") hereby put forward the Green Bond Endorsed Project Catalogue (2015 Edition) (hereinafter referred to as "the Catalogue"). The preparation instructions on the Catalogue are stated as follow.

I. Necessity of the Catalogue

The environmental challenges that China is facing greatly increase the necessity of transiting Chinese economy to a green and sustainable one. Finance lays a foundation for resource allocation, and plays a significant role in the industrial restructuring and the transition to a green economy. However, the direct financing market in China is currently lacking of explicit defining criteria and catalogue for green investment projects, which goes against the purpose of encouraging investors from home and abroad to reinforce green investment and take social responsibilities.

Green bond, as an economical investment instrument with high mobility and low risk, can effectively enhance the financing availability for green projects, especially those with medium and long term, lower financing cost, and provide investors with a new channel to engage in green investment. Defining criteria and category for green bond projects and establishing endorsed project catalogue is a fundamental work to push forward the sustainable development of the green bond market, and an essential reference for green bond issuance approval and registration, third party assurance, green bond rating and related environmental disclosure.

II. International Green Bond Principles/ Standards

When it comes to the defining criteria for green bond, the International Capital Market Association (ICMA) launched the Green Bond Principles (GBP), Climate Bonds Initiative (CBI) introduced Climate Bonds Initiative Taxonomy- Definitions, and Barclays and MSCI ESG Research have collaborated to develop Barclays MSCI Green Bond Index. In addition, providers of second party review or third party certifications, presented by CICERO, and financial institutions, presented by HSBC, also unveil related framework documents under GBP to set out more detailed classification and definition of green bond.

The definition and classification of the green bond is based primarily on the environmental performance of the green bond endorsed projects. The different focus on environmental performance by various institutions reflects the different focus on problems to be solved, which stems from the differences in stage of development and natural environments in different countries and regions.

III. Rationale and Principle of the Catalogue

In addition to challenges from climate change, China is facing other issues such as severe environmental pollution, aggravated resource constraints and deteriorated ecological degradation. As a consequence, the Catalogue must take multi-dimensional environmental benefits as the defining standard. Project definition should take special consideration of environmental benefits in GHG emission reduction, pollution reduction, resource conservation, ecological protection, and etc.. The Catalogue should prioritize projects with direct and marked environmental benefits, and those accord with national industrial policy.

Based on the considerations above, the Catalogue shall adhere to the following basic principles: i. Conforming to national conditions: focusing on improving the ecological environment and easing resource pressure, and following the lead of national industrial policy at the current stage. ii. Highlighting environmental benefits: supporting projects with marked environmental benefits and positive spillover effects. iii. Being simple and clear: taking into account the fact that most of the capital market practitioners are non-environmental professionals, and thus employing definition and classification method that is easy to follow and operate. iv. Making continuous adjustment: timely updating the Catalogue according to technological advancement, policy adjustment, standard updates and changes in resource and environmental conditions. v. In line with international

practice: taking international standards and practices as reference to develop domestic definition and classification method, in order to facilitate international cooperation in green finance.

IV. Key Reference

1. Classification of Strategic Emerging Industry (2012) (Trial) (Guo Tong Zi [2012] 106; National Bureau of Statistics, January 4, 2013)

2. Proposal for Promoting the Application of Cleaner Production Technologies in Key Industrial Sectors for the Prevention and Control of Air Pollution (Gong Xin Bu Jie [2014] 273; Ministry of Industry and Information Technology, July 2, 2015)

3. Action Plan for Implementation of Key Energy Saving Technology and Equipment Industrialization (Fa Gai Huan Zi [2014] 2423; National Development and Reform Commission/ Ministry of Industry and Information Technology, October 2014)

4. National Key Energy-Efficient and Low-Carbon Technologies Promotion Catalogue (2014 Edition, Energy Saving Part) (NDRC Announcement No. 24 [2014]; National Development and Reform Commission, December 31, 2014)

5. Notice of National Energy Administration on Issuing the Action Plan of Clean and Efficient Coal Use (2015-2020) (Guo Neng Mei Tan [2015] 141; National Energy Administration, April 27, 2015)

6. Catalogue for Low-carbon Technology Promoted with Priority (NDRC Announcement No. 13 [2014]; National Development and Reform Commission, August 25, 2014)

7. Guidelines on Green Credit Loans (Yin Jian Hui [2012] 4; China Banking Regulatory Commission, February 24, 2012)

8. Energy Efficiency Credit Guidelines (Yin Jian Fa [2015] 2; China Banking Regulatory Commission and National Development and Reform Commission, January 13, 2015)

9. Notice of China Banking Regulatory Commission on Filing and Reporting the Green Credit Statistics Forms (Yin Jian Ban Fa [2013] 185; General Office of China Banking Regulatory Commission, July 4, 2013)

10. Classification Standard for the Energy Saving and Environmental Protection Operation (2014 Edition) (China Energy Conservation and Environmental Protection Group, December 11, 2014)

11. Green Bond Principles (2015) (International Capital Market Association, March 27, 2015)

12. Climate Bonds Standards (Climate Bonds Initiative, May 2015)

V. Preparation of the Catalogue

The Committee commissioned the CECEP Consulting Co., Ltd. and the Research Center of Climate and Energy Finance of Central University of Finance and Economics to prepare the Catalogue and undertake relevant research work. During the research stage, the Committee organized four symposiums and solicited feedback in written and other forms from hundreds of organizations including all the members of the Committee. Organizations that made important statements include National Development and Reform Commission, Ministry of Environmental Protection, China Banking Regulatory Commission, Market Department of People's Bank of China, National Association of Financial Market Institutional Investors, China Securities Financial Research Institute of China Securities Regulatory Commission, China Development Bank, China Industry Bank, Shanghai Pudong Development Bank, Standard Chartered Bank, HSBC, China Beijing Environment Exchange, International Capital Market Association, China National Institute of Standardization, International Finance Corporation, The Energy Foundation, Noah Holdings Limited, Dagong Global Credit Rating Co., Ltd., China Bond Rating Co., Ltd., Yingli Group, etc..

During the discussion, the main comments proposed by related parties and experts include: to highlight and steadily push forward projects that have marked environmental benefits, are widely accepted and conform to industrial policies; to exclude highly controversial projects or to apply strictive conditions; to timely expand and adjust the Catalogue along with the establishment and development of the green bond market, the technological advancement, the policy adjustment and standard updates; to take reference of international standards, attracting international green investment on one hand and creating opportunities for Chinese enterprises and financial institutions to issue

green bond overseas on the other hand. Many technical recommendations raised by the relevant parties and experts are also reflected during the Catalogue preparation.

VI. Content of the Catalogue

The Catalogue takes on projects with marked environmental benefits, and are categorized into 6 categories (Level-1 Category) and 31 sub-categories (Level-2 Category), with detailed explanations and defining criteria. Given the fact that the indirect green benefits of equipment/ product manufacturing will be achieved through project construction and operation, and that the evaluation program is complex and imprecise, it is tentatively agreed upon that in the initial stage of green market development, the environmental benefits would be measured mainly from the construction and operation.

The Catalogue includes the following 6 categories. i. Energy Saving: through constructing high efficiency facilities and conducting energy-saving improvement, to reduce energy/ water/ raw material consumption per unit product or service, lower pollutants and GHG (e.g.,CO_2) emissions generated from resource consumption, and achieve resource conservation, GHG emission reduction and pollutant alleviation. ii. Pollution Prevention and Control: through constructing facilities for desulfurization, denitrificaiton, dust removal and sewage treatment, as well as other forms of integrated environmental treatment, to reduce pollutant discharge, control environmental pollution, protect, restore and improve environment. iii. Resource Conservation and Recycling: through the exploitation and reuse of tailings and associated mines, reuse of industrial and agricultural waste, recycling and remanufacturing of waste metals and non-metallic, to improve resource utilization, save resources and minimize environmental damages. iv. Clean Transportation: through the construction of railway, urban rail transit and clean fuel production units, and promotion of new energy vehicles, to reduce GHG emission and pollutant discharge intensity, achieving energy conservation and emission reduction. v. Clean Energy: substituting fossil energy consumption with renewable energy such as solar energy, wind energy, hydropower, geothermal energy, ocean energy, to reduce pollutants and CO_2 emitted from the exploitation, production and consumption of fossil fuels; through the utilization of low carbon energy such as natural gas, to minimize pollutant discharge and GHG emission reduction. vi. Ecological Protection and Climate Change Adaption: through comprehensive treatment of soil erosion, ecological restoration, disaster prevention and control, and natural reserve construction, to improve

the ecological environment quality, strengthen disaster prevention ability, and enhance biodiversity conservation, etc.; through afforestation, forest tending and conservation, eco-agriculture, animal husbandry and fishery, and strengthened infrastructure construction, to mitigate or adapt climate change and reduce the adverse effects of climate change on social and economic development.

Green Finance Committee of China Society of Finance and Banking

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Green Bond Endorsed Project Catalogue (2015 Edition)

Level-I Category	Level-II Category	Level-III Category	Specification/ defining criteria	National Industries Classification Code	Notes
1 Energy Saving	1.1.Industrial Energy Saving	1.1.1 Device/Facility Construction and Operation	1. For the industries with a national standard of energy consumption allowance for unit product, energy consumption of the device/facility (except coal-fired power generation) or the process ≤ The reference value in the national standard of energy consumption allowance for unit product. 2. For coal-fired generator units: Ultra supercritical or supercritical CHP generator units with a capacity of no less than 300MW; back pressure heating units without a capacity limit. 3. For projects adopting special technology with high efficiency and low consumption, for instance, the ultra-high voltage (UHV) grid:	E-Construction-48 Civil Engineering Construction	The reference value of energy consumption allowance for unit product (process): should refer to the national standard of energy consumption allowance in each industry, or *National Guidance for Industrial Energy Consumption (2014), Chapter 4, Energy Consumption for Product and Process in Key Industries, Table 4. Energy Consumption for Main Product and Process in Key Industries.*

			identified according to the special technology directly; 4. For biomass and low heat value (LHV) fuel power generation projects: identified according to the property of biomass and LHV fuel. 5. For high energy efficiency application projects, for instance, LED lighting : identified according to the technology of application.		
		1.1.2 Energy-saving Technology Improvement	Renovation projects adopting the energy saving technology listed in the Catalogue for Promoting the National Key Energy-saving Technology (2014, Energy-saving part); Renovation projects of centralized heating complying with policies of “developing large capacity units and suppressing small ones”, and “equivalent capacity replacement”.	E Construction-48 Civil Engineering Construction -4840 Mining Engineering Construction or-49 Construction and Installation	For projects with existing national standard of energy savings measurement and verification, the energy saving effect should be evaluated according to the standards.

			Energy-saving renovation project in industrial, transportation and communication area. The renovated device/facility/equipment should meet at least one of the following conditions: 1. The energy consumption of the device/facility or the process ≤ the reference value of energy consumption allowance for unit product in national standards. 2. the energy-saving efficiency of the renovated device/facility/equipment ≥ the average energy-saving efficiency/capability of energy-saving applications in the industry/area		
	1.2 Sustainable Building	1.2.1 Newly-built Green Building	The Newly-built buildings should meet following standards: 1. Newly-built industrial buildings: no less than	E Construction -47 Housing Construction	

			two-star of the *Evaluation Standard for Green Industrial Building* (GB/T50878-2013) 2、Newly-built resident and public buildings: No less than two-star of the *Evaluation Standard for Green Building* (GB/T50378-2006).		
		1.2.2 Energy Saving Technology Improvement on Existing Building	The energy saving building renovation project includes but not limited to: energy saving renovation on building envelope, heat supply system, heating and cooling system, lighting, hot water supply facility.	E Construction -49 Construction and Installation; -50 architectural ornament and others	
	1.3 Energy Management Center	1.3.1 Facility Construction and Operation	An integrated energy management system which saves energy systematically, by using automation and information technology and centralized management, to implement centralized flat monitoring and digital management to	I Information transmission, software and information technology services -65 Software and information technology services -6510 Software development and -6520 Information	The project construction should be comply with the *Construction Requirements of Energy Control Center for Industrial Enterprises*

			each process of production, distribution and consumption in corporate energy system, and improve and optimize the balance of energy. Including the purchase and installation of hardware facility, as well as the development and application of supporting software.	system integration service	
	1.4 Urban and Rural Infrastructure Construction with Energy Saving Efficiency	1.4.1 Facility Construction	Include but not limited to: 1. Urban underground pipeline corridor project; 2. Construction and renovation projects of adjusting the underground pipeline layout, route and buried depth, according to the situation of urban waterlogging and heat-island effect; 3. Construction and renovation projects of adjusting the district heating and water supply dispatching, as well as improving the pipeline standard of heat insulation and	E Construction -48 Civil Engineering Construction -4819 Other road, tunnel and bridge engineering construction; -485 Wiring and piping engineering construction	*Reference: the State Council Office's Guidance on Promoting the Construction of Integrated Urban Underground Pipeline Corridor (Document No. 【2015】61)*

			moisture resistance, according to the change of temperature.		
2 Pollution Prevention and Control	2.1 Pollution Prevention and Control	2.1.1 Facility Construction and Operation	The construction and operation of waste treatment facility includes but not limited to: Treatment of waste water, sludge in waste water treatment, air pollution, municipal solid waste (MSW) (including hazardous waste and medical waste), waste treatment of integrated governance, treatment facilities and final treatment facilities (including construction and operation of pipelines, collection, transfer and storage facilities)	D Production and supply of electricity, thermal power, fuel gas and water -46 Production and supply of water-4620 Treatment and Reuse of sewage; 7340 Marine service; N Management of water, environment and public utilities - 77 Ecological protection and environmental governance	Meet national standards for corporates with service of pollution governance facility. The *Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal* should be complied with where the waste transfer is applicable.
	2.2 Environmental Restoration Project	2.2.1 Project Implementation	The environmental restoration project includes but not limited to: Integrated improvement of the urban polluted water, mine land reclamation and	N Management of water, environment and public utilities - 77 Ecological protection and environmental governance	The *Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal* should be complied

			ecological restoration, remediation of soil pollution and etc.		with where the waste transfer is applicable.
	2.3 Clean Utilization of Coal	2.3.1 Device/Facility Construction and Operation	Device/Facility construction and operation projects conducting coal washing and processing, using coal by quality and classification, adopting technologies easy for pollution treatment to replace the traditional use of coal.	B Mining-06 Coal mining and washing; E Construction-48 Civil Engineering Construction -4840 Mining Engineering Construction; C Manufacturing-25 Petroleum refining and coking, nuclear fuel processing - 2520 Coking; 33 Metal products - 3311 Metal structure manufacturing	Only device/facility construction and operation projects complying with the *Action Plan of Clean Utilization of Coal (2015-2020)*, and *Opinions on Regulating the Coal Fuel Demonstration Work*
3 Resource Conservation and Recycling	3.1 Water Saving and Unconventional Water Use	3.1.1 Facility Construction and Operation	Include but not limited to: transformation of industrial water saving technology, agricultural water saving irrigation, transformation of urban pipeline network for water supply, integrated use of water resource, unconventional water use (including sea water	E-Construction-48 Civil Engineering Construction; D Production and supply of electricity, thermal power, fuel gas and water -46 Production and supply of water- 4690 Other treatment,	To optimize the allocation of water resource, the project should benefit climate change adaption.

			desalination, treatment and reuse of brackish water, recycling water, mine water), and the supporting facility construction and operation of sponge city.	use and distribution of water; N Management of water, environment and public utilities -76 Management of water conservancy-7620 Management of water resource；-7630 Collection and distribution of natural water	
	3.2 Redevelopment and Integrated Utilization of Tailings and Associated Mine	3.2.1 Device/Facility Construction and Operation	Specific to the redevelopment of tailings and associated mine with a purpose of resource efficiency improvement, development of geothermal power, reinjection and integrated utilization	B Mining-06 Coal mining and washing; -07 Oil and gas exploitation; -08 Ferrous metals mining and dressing; -09 Non-ferrous metals mining and dressing; -10 Nonmetal minerals mining and dressing; -12 Other mining industry	Not include the thermal power plant and mineral water manufacturer taking advantage of the geothermal resource and water resource
	3.3 Recycling and Utilization of Industrial Solid	3.3.1 Device/Facility Construction and Operation	Specific to collection and resourcelization of industrial solid waste,	B Mining-06 Coal mining and washing;	Meet national standards for corporates with

	Wastes, Exhaust Gas, and Effluent		exhaust gas, and effluent.	C Manufacuring-14 Food manufacturing-146 Manufacturing of condiment and fermented products; -17 Textile; -19 Leather, fur, feather and its products; shoemaking industry -22 Paper making and paper products; -25 Petroleum refining and coking, nuclear fuel processing; -29 Rubber and plastic products; -30 Nonmetal mineral products D Production and supply of electricity, thermal power, fuel gas and water-4411 Thermal power generation; C Manufacturing-31 Ferrous metal smelting and rolling; -32 Non-ferrous metal smelting and rolling; -33 Metal products-	service of pollution governance facility.

				3360 Metal surface treatment and heat treatment processing	
	3.4 Recycling, Processing and Utilization of Renewable Resource	3.4.1 Facility Construction and Operation of Recycling, Sorting and Dismantling System	Specific to the construction and operation of waste collection system for metal and non-metal production and processing in industrial area; construction and operation of recycling, sorting and dismantling system for “city minerals” resource, for instance, scrap car, scrap electronics, waste plastics, waste steel, waste non-ferrous metal and etc.	C Manufacturing-42 Integrated use of wasted resource	
		3.4.2 Processing Device/Facility Construction and Operation	Specific to the construction and operation of waste processing and reuse system for metal and non-metal production and processing in industrial area; construction and operation of processing	C Manufacturing-42 Integrated use of wasted resource	

			and reuse system for “city minerals” resource, for instance, scrap car, scrap electronics, waste plastics, waste steel, waste non-ferrous metal and etc.		
	3.5 Remanufacturing of Electromechanical Products	3.5.1 Device/Facility Construction and Operation	Specific to construction and operation of remanufacturing device/facility for electromechanical products, for instance, auto parts, engineering machines, and machine tools.	C Manufacturing-38 Automobile manufacturing-3660 Auto parts manufacturing; -34 General equipment manufacturing; -33 Metal products	
	3.6 Recycling and Utilization of Biomass Resource	3.6.1 Device/Facility Construction and Operation	Specific to construction and operation of resourcelization device/facility for biomass waste, like straw, forest waste, and household waste. This includes but not limited to: Production device/facility for non-grain liquid biomass fuel, power generation and heating device/facility for	N Management of water, environment and public utilities-78 Management public utilities-7820 Management of environmental sanitation; A Agriculture , forestry , husbandry and fishery-05 Agriculture , forestry , husbandry and fishery services-0519 Other	

			agricultural and forest biomass, production device/facility for biogas, resourcelization device/facility for household waste.	agriculture services; -0529 Other forestry services; -0530 Husbandry services; D Production and supply of electricity, thermal power, fuel gas and water-44 Production and supply of electricity and thermal power-4419 Other electricity production	
4 Clean Transportation	4.1 Railway Transportation	4.1.1 Facility Construction and Operation	Specific to the construction and operation (including technical transformation and upgrading) of railway lines and terminals, and special supply station and substation.	E Construction-48 Civil engineering construction-481 Engineering construction of railway, road, tunnel and bridge -4811 Railway engineering construction and G Transportation, warehousing and postal industry-53 Railway transportation	
	4.2 Urban Rail Transit	4.2.1 Facility Construction and	Specific to the construction and	E Construction-48 Civil engineering	

		Operation	operation of rail transit, including urban underground and light rail.	construction-481 Engineering construction of railway, road, tunnel and bridge -4811 Railway engineering construction and 4819 Other engineering construction of road, tunnel and bridge G Transportation, warehousing and postal industry -54 Road transportation-5412 Urban rail transit。	
	4.3 Public Urban and Rural Transportation	4.3.1 Vehicle Purchase	Specific to purchase of public vehicles, including bus and electric bus for passengers.	G Transportation, warehousing and postal industry -54 Road transportation-5411 Electric passenger bus	
		4.3.2 Facility Construction and Operation	Specific to the construction and operation of stations, BRT lines, and other supporting facilities in public transportation, as well as the lines	G Transportation, warehousing and postal industry -54 Road transportation-5411 Electric passenger bus	

			maintenance.		
	4.4 Waterway Transportation	4.4.1 Vessel Purchase	Specific to the phase-out of old vessels, and purchase of standardized inland-waterway vessels, and vessels transport on costal water and ocean which fully meet the latest international guidance, agreements and standards.	G Transportation, warehousing and postal industry -55 Waterway transportation	References: *Implementation Plan of Improving Industrial Structure, Promoting Industrial Transformation and Upgrading for Shipping Industry (2013-2015); Measurement for Subsidy Management of Inland Ship Standardization; Working Focus on Energy Saving and Emission Reduction in Transportation Industry 2014; International Convention for the Prevention of Pollution From Ships (MARPOL73/78) where the ocean shipping is applicable.*
		4.4.2 Waterway Regulation	Specific to the high-quality inland waterway dredging projects	E Construction- 48 Civil engineering construction- 4823	References: *Implementation Plan of Improving*

				engineering construction of port and shipping facility	*Industrial Structure, Promoting Industrial Transformation and Upgrading for Shipping Industry (2013-2015);* *Working Focus on Energy Saving and Emission Reduction in Transportation Industry 2014; International*
	4.5 Clean Fuel	4.5.1 Device/Facility Construction and Operation	Specific to the device/facility construction and operation which meets the fuel production requirements of GB V standard gasoline and GB IV standard diesel, or the technical transformation projects on existing fuel production with improved cleanness standards (the GB V standard gasoline and GB IV standard diesel should be met after the transformation project)	C Manufacturing- 35 Special equipment manufacturing -3521 Manufacturing of special equipment for oil refining and chemical production	
		4.5.2 Manufacturing of Auto Fuel	Specific to the fuel products which meet the	C Manufacturing-25 Petroleum refining	

		Products	fuel production requirements of GB V standard gasoline and GB IV standard diesel; and production of clean fuel additives, like antiknock and oxidizer.	and coking, nuclear fuel processing - 2511 Crude processing and petroleum product manufacturing	
	4.6 New Energy Automobile	4.6.1 Parts and Whole Car Manufacturing	Specific to whole car manufacturing, including new energy car like electric car, fuel-battery car and natural-gas car; motor manufacturing, energy storing device manufacturing and other parts manufacturing.	C Manufaturing-36 Automobile manufacturing; -38 Electrical machinery and equipment manufacturing -381 Motor Manufacturing；-384 Battery manufacturing	
		4.6.2 Supporting Facility Construction and Operation	Specific to construction and operation of charging and energy supply facility for new energy car.	E Construction- 48 Civil engineering construction	
	4.7 Internet Application on Transportation	4.7.1 Facility Construction and Operation	Specific to hardware and software facility and system that improves the capability and efficiency of transportation and logistics. The facility or system should base on	G Transportation, warehousing and postal industry; I Information transmission, software and information technology services	The Internet ticket booking system for vehicle, ship and flight is not included; Applications mainly based on internet technology like taxi booking software.

			mobile communication terminal, telecommunication base station, GPS, and internet technology, apply the Internet of Things and Big Data, to achieve integrated management of resource with comprehensive information communication and sharing. The service targets directly on logistics and transportation facility. The construction and operation includes: logistics information service platform, smart storage system, smart logistics distribution system, online integrated system of transportation resource (vehicle and ship), transportation management, executive information system, smart monitoring system and etc.		
5 Clean Energy	5.1 Wind Power	5.1.1 Facility	Specific to construction	D Production and	

	Generation	Construction and Operation	and operation of wind farm (including supporting wind power monitoring system, wind power prediction system, integrated control system of wind farm and etc.)	supply of electricity, thermal power, fuel gas and water-44 Production and supply of electricity and thermal power-4414 Wind power generation	
	5.2 Solar Photovoltaic (PV) Power Generation	5.2.1 Facility Construction and Operation	The solar PV power plant and high-temperature solar power plants (excluding distributed solar PV power generation system) should meet following requirements: 1. No less than15.5% of the photoelectric conversion efficiency for poly-crystalline silicon cell module, no more than 2.5% of the decay rate for the module within one year after the project' start-up; no more than 0.7% of the decay rate afterwards. 2. No less than16% of the photoelectric conversion efficiency for mono-crystalline silicon	D Production and supply of electricity, thermal power, fuel gas and water-44 Production and supply of electricity and thermal power-4415 Solar power generation	

			cell module, no more than 3% of the decay rate for the module within one year after the project' start-up; no more than 0.7% of the decay rate afterwards. 3. No less than 28% of the photoelectric conversion efficiency for high concentration PV (HCPV) cell module, no more than 2% of the decay rate for the module within one year after the project' start-up; no more than 0.5% of the decay rate afterwards; no more than 10% of the decay rate in whole project lifetime. 4. No less than 8% of the photoelectric conversion efficiency for silicon based film cell module; No less than 11% of the photoelectric conversion efficiency for copper indium gallium selenide (CIGS) film cell module; No less than 11% of the photoelectric		

			conversion efficiency for cadmium telluride (CdTe) film cell module; No less than 10% of the photoelectric conversion efficiency for other film cell module; 5. No more than 20% of the decay rate for polycrystalline silicon, monocrystalline silicon and film cell module in whole project lifetime.		
	5.3 Smart Grid and Energy Internet	5.3.1 Facility Construction and Operation/Upgrading	Specific to grid construction and operation or technical transformation and upgrading projects, which improve the balance and responsiveness of supply and demand, promote integrated energy efficiency of the grid, lower the transformation of power loss in transmission, and enhance the capability of renewables access. 1. Smart grid: Grid construction and	D Production and supply of electricity, thermal power, fuel gas and water-44 Electricity production-4420 Electricity supply; -45 Production and supply of fuel gas	

			operation, as well as the technical transformation and upgrading projects, which adopt smart electric equipment, integrated simultaneous two-way information system and other advanced technologies. 2. Energy internet construction and operation of grid, micro-grid and other energy (like natural gas) internet, which integratedly applies power electronics, information and smart management technology，connecting distributed energy (including distributed renewable energy), distributed energy storage device and various types of load, to achieve two-way energy flow and peer exchange and sharing.		
	5.4 Distributed Energy Resource	5.4.1 Facility Construction and Operation	Specific to construction and operation of energy management system, for instance, regional	D Production and supply of electricity, thermal power, fuel gas and water-44	

			energy station (including regional natural gas station), distributed power generation like distributed photovoltaic power generation, distributed energy access and peak-valley load regulating system, distributed power trading platform, and etc.	Production and supply of electricity and thermal power-4420 Electricity supply	
	5.5 Solar Thermal Application	5.5.1 Device/Facility Construction and Operation	Specific to construction and operation of device/facility using solar energy, which includes but not limited to: Installation and operation of solar water heater; solar heating system; medium-high temperature solar heat collection system; solar cooling system, heat pump air-condition system; solar energy and air source heat pump hot water system, high-temperature megawatt solar power generation device/facility.	D Production and supply of electricity, thermal power, fuel gas and water-44 Production and supply of electricity and thermal power	

	5.6 Hydropower Generation	5.6.1 Facility Construction and Operation	Specific to hydropower construction and operation like reservoir dam, hydraulic tunnel, powerhouse, generator unit and etc.	D Production and supply of electricity, thermal power, fuel gas and water-44 Production and supply of electricity and thermal power-Hydropower generation	Meet requirements of *Opinion of Energy Work 2014* and other related documents, also the ecologic and environmental protection and resettlement action plan of the project should be assessed and approved
	5.7 Other New Energy Application	5.7.1 Facility Construction and Operation	Specific to engineering construction and operation of renewable energy generation like geothermal power and marine power.	D Production and supply of electricity, thermal power, fuel gas and water-44 Production and supply of electricity and thermal power-4419 Other electricity production	
6 Ecological Protection and Climate Change Adaption	6.1 Natural Ecological Protection and Protective Development of Tourism Resource	6.1.1 Facility Construction and Operation	Specific to natural reserve engineering; ecological restoration and vegetation conservation engineering; and ecological protective development of tourism resource. These include	N Management of water, environment and public utilities -77 Ecological protection and environmental governance-771 Ecological protection; -78	

			but not limited to: National park, national geological park, the protection project of natural heritage, construction and maintenance of national and provincial natural reserve; construction and maintenance of ecological function area, like specific wildlife habitat, wetland, desert, and prairie; coastal ecological restoration and vegetation conservation engineering; environmental pressure release on ecologically vulnerable area (like ecomigration); urban gardening; land reclamation.	Management public utilities-785 Management of parks and scenic spots-7852 Management of scenic spot	

	6.2 Ecological Agriculture, Husbandry and Fishery	6.2.1 Project Implementation and Facility Construction and Operation	Include integrating breeding project of agricultural, husbandry, and fishery thoroughbred, manufacturing agricultural, husbandry, and fishery organic products (including facility construction and operation). The output and products of projects should meet following requirements or policies: 1. GB/T19630 standard of Chinese organic products; 2. Environment and quality standards of Agriculture Department, 7 general guidance of pesticides, fertilizer, veterinary drug, feed and feed additives, food additives, and animal hygiene, 45 product quality standards, product mark should be in compliance with the “Measures of Mark Management for Green Food”.	A Agriculture , forestry , husbandry and fishery-01 Agriculture; -03 Husbandry; -04 Fishery	1. Projects should be in compliance with the Safety Management Regulation of Agricultural Genetically Modified Organisms (GMOs); 2. Tobacco cultivation projects are excluded, as well as the fishing methods which are harmful to marine ecological environment and diversity, for instance, fish net fishing and large ocean drift net fishing; 3. Projects should be in compliance with the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade where applicable; the production should be in

					compliance with the Montreal Protocol on Substances that Deplete the Ozone Layer.
	6.3 Forestry Development	6.3.1 Project Implementation and Facility Construction and Operation	Specific to the forest tending management and sustainable forestry development project, including but not limited to: 1. Afforestation; 2. Forestry seed breeding and seedling	A Agriculture , forestry , husbandry and fishery-02 Forestry	1. Any species development and (international) trade of animal and plats listed outside the *Convention on International Trade in Endangered Species of Wild*

			production; 3. Underwood planting and underwood breeding.		*Fauna and Flora(CITES);* *2.* Exclude the natural commercial deforestation of natural forest.
	6.4 Emergency Prevention and Control of Disaster	6.4.1 Facility Construction and Operation	Specific to disaster monitoring, warning and emergency response system, major river dyke construction and riverway dredging engineering, and other engineering construction and operation including soil and water loss control, ecological protection of forests and prairies and etc. These include but not limited to : 1. Disaster monitoring of major infrastructure (water conservancy, transportation, communication, electricity transmission, municipal infrastructure an etc.) and emergency response system ; 2. Dyke construction of major rivers, riverway dredging、flood storage area engineering and	I Information transmission, software and information technology services -65 Software and information technology services; N Management of water, environment and public utilities -76 Management of water conservancy-7610 Management of flood control facilities;- 77 Ecological protection and environmental governance-771 Ecological protection; -78 Management public utilities-7810 Management of municipal facilities; A Agriculture , forestry, husbandry	

			maintenance, controlling hinge construction of main and tributary stream; 3. Construction and operation of hygiene emergency response for addressing natural disaster and extreme weather, the production and storage of hygiene emergency response facilities; 4. Monitoring, prevention and control system of forest fire, harmful and exotic species; 5. Waning, prevention and control system of agriculture disaster; monitoring, prevention and control system of animal epidemics; 6. Monitoring system of marine disaster, ecological protection of prairie, control of soil and water loss; 7. Natural forest protection project (NEPP), converting cultivated land into forests, construction and maintenance of shelter	and fishery-05 Agriculture , forestry, husbandry and fishery services	

			forest; 8. Production, storage and transmission of disaster preparedness supplies.		

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