Machinery & Equipment

Activities	Conditions	Incentives
3.10 Manufacture of lenses 3.10.1 Manufacture of lenses that are not medical devices, sunglass lenses or cosmetic lenses, e.g. camera lenses		A 4
3.10.2 Manufacture of sunglass lenses, cosmetic lenses, eyeglass frames and parts		B 1
4.4 Manufacture of multi-purpose engines and equipment	1. Project must have forming process of main engine parts, e.g. cylinder head, crank case, crankshaft, camshaft, connecting rod, piston and flywheel. 2. Assembling of multipurpose engine or equipment.	A 4 B 1
4.5 Manufacture of machinery, equipment and parts 4.5.1 Automation machinery and/ or automation equipment with engineering design		
4.5.1.1 Automation machinery and/or automation equipment with engineering design, including automation system integration and control system configuration		A 1
4.5.1.2 Automation machinery and/or automation equipment with engineering design, including control system configuration		A 2

Activities	Conditions	Incentives
4.5.2 Machinery, equipment and parts and/or repair of mould and die	Projects must have part forming process and/or with engineering design.	A 3
4.5.3 Assembling of machinery and machinery equipment	Projects must have assembling process as approved by the Board.	A 4
4.5.4 Assembling of Robots or Automation Equipment and/or Automation Parts		A 3
4.13 Manufacture of Fuel Cells		A 2
4.15 Manufacture of science equipment 4.15.1 Scientific equipment using high technology	Scientific equipment must be able to measure parameter value, process data and self-report the result or automatically measure and control the parameter.	A 2
4.15.2 Other scientific equipment		A 3

Vehicle

Activities	Conditions	Incentives
4.6 Manufacture of general automobile	Not eligible for merit-based incentives.	B 1
4.7 Manufacture of automobile engines 4.7.1 Manufacture of automobile engines	1. Must have forming process of not less than 4 out of 5 parts as follows: Cylinder Head, Cylinder Block, Crankshaft, Camshaft and Connecting Rod. 2. Must have engine assembly process	A 3 A4
4.7.2 Manufacture of motorcycle engines	1. Must have forming process of not less than 4 out of 5 parts, as follows: Cylinder Head, Cylinder Block, Crankshaft, Camshaft and Connecting Rod. 1.1 Must have forming process of not less than 4 out of 6 parts for manufacturing engine that have a cylinder capacity starting from 248 cc. but not exceeding 500 cc. 1.2 Must have forming process of not less than 2 out of 6 parts for manufacturing of engine that have a cylinder capacity of 500 cc. or more. 2. Must have engine assembly process.	A 3

Activities	Conditions	Incentives
4.8 Manufacture of vehicle parts		
4.8.1 Manufacture of vehicle parts using high technology including:		
4.8.1.1 Substrate for Catalytic Converter		A 2
4.8.1.2 Electronic Fuel Injection System		A 2
4.8.1.3 Automotive Transmission		A 2
4.8.1.4 Electronic Control Unit (ECU)		A 2
4.8.2 Manufacture of automobile safety and energy-saving parts		
4.8.2.1 Anti-Lock Brake System (ABS) or Electronic Brake Force Distribution (EBD)		A 2
4.8.2.2 Electronic Stability Control (ESC)		A 2
4.8.2.3 Regenerative Braking System		A 2
4.8.2.4 Idling Stop System		A 2
4.8.2.5 Autonomous Emergency Braking System		A 2
4.8.3 Manufacture of parts for Hybrid, Electric Vehicle(EV) and Plug-in Hybrid Electric Vehicles (PHEV)		
4.8.3.1 Battery		A 2
4.8.3.2 Traction Motor		A 2

Activities	Conditions	Incentives
4.8.3.3 Air-condition system		A 2
4.8.3.4 Battery Management Systems (BMS)		A 2
4.8.3.5 Drive Control Units (DCU)		A 2
4.8.3.6 On-Board Charger		A 2
4.8.3.7 EV Connector with plug and socket		A 2
4.8.3.8 DC/DC Converter		A 2
4.8.3.9 Inverter		A 2
4.8.3.10 Portable Electric Vehicle Charger		A 2
4.8.3.11 Electrical Circuit Breaker		A 2
4.8.3.12 EV Smart Charging System Development		A 2
4.8.3.13 Front/rear axle for battery electric bus		A 2
4.8.4 Manufacture of rubber tire for vehicle		A 2
4.8.5 Manufacture of Fuel System Parts including	Projects must have part forming process and assembling process as approved by the Board.	
4.8.5.1 Fuel Pump		A 3
4.8.5.2 Injection Pump		A 3
4.8.5.3 Injector		A 3
4.8.5.4 Fuel Pipe/Tube		A 4
4.8.6 Manufacture of Transmission System Parts including		
4.8.6.1 Sun Gear		A 3
4.8.6.2 Ring Gear		A 3
4.8.6.3 Shift Gear		A 3

Activities		Conditions	Incentives
4.8.6.4	Transfer Case	Projects must have part forming process and assembling process as approved by the Board.	A 3
4.8.6.5	Torque Converter	Projects must have part forming process and assembling process as approved by the Board.	A 3
4.8.6.6	Carrier	Projects must have part forming process and assembling process as approved by the Board.	A 3
4.8.6.7	Propeller Shaft	Projects must have part forming process and assembling process as approved by the Board.	A 3
4.8.6.8	Driver Shaft	Projects must have part forming process and assembling process as approved by the Board.	A 3
4.8.6.9	Universal Join	Projects must have part forming process and assembling process as approved by the Board.	A 3
4.8.6.10	Differential	Projects must have part forming process and assembling process as approved by the Board.	A 3
4.8.6.11	Transmission Case		A 3
4.8.7	Manufacture of Engine System Parts including		
4.8.7.1	Turbocharger	Projects must have part forming process and assembling process as approved by the Board.	A 3
4.8.7.2	Turbocharger Parts including Turbine Blade, Turbine Housing and Bearing Housing		A 4
4.8.7.3	Cylinder Head		A 4
4.8.7.4	Cylinder Block		A 4
4.8.7.5	Crankshaft		A 4
4.8.7.6	Camshaft		A 4
4.8.7.7	Connecting Rod		A 4

Activities	Conditions	Incentives
4.8.7.8 Valve		A 4
4.8.7.9 Piston		A 4
4.8.7.10 Gear		A 4
4.8.7.11 Starting Motor or Parts		A 4
4.8.7.12 Alternator or parts		A 4
4.8.7.13 Rocker Arm		A 4
4.8.7.14 Waste Gate Actuator		A 4
4.8.8 Manufacture of Safety Parts including		
4.8.8.1 Air Bag/Safety Belt		A 4
4.8.8.2 Air Bag Inflator, Gas Generator, Gas Generant		A 3
4.8.8.3 Parts for Air Bag, i.e. Initiator and Coolant Filter		A 4
4.8.8.4 Parts for Safety Belt, i.e. Interlock and Retractor		A 4
4.8.9 Manufacture of Brake System Parts including	Project must have part forming process and assembling process as approved by the Board	
4.8.9.1 Brake Booster		A 4
4.8.9.2 Brake Caliper		A 4
4.8.9.3 Brake Master Cylinder		A 4
4.8.9.4 Brake Wheel Cylinder		A 4
4.8.9.5 Wheel Hub		A 4
4.8.9.6 Brake Pipe Tube		A 4
4.8.9.7 Brake Set		A 4
4.8.9.8 Brake Drum		A 4

Activities	Conditions	Incentives
4.8.10 Manufacture of Suspension System Parts including	Projects must have part forming process and assembling process as approved by the Board.	
4.8.10.1 Shock Absorber		A 4
4.8.10.2 Ball Joint		A 4
4.8.10.3 Leaf / Coil Spring		A 4
4.8.11 Manufacture of Steering System Parts including		
4.8.11.1 Power Steering Pump / Motor		A 4
4.8.11.2 Rack and Pinion Steering		A 4
4.8.12 Manufacture of Cooling System Parts including	Projects must have part forming process and assembling process as approved by the Board.	A 4
4.8.12.1 Water Pump		
4.8.13 Manufacture of Exhaust System Parts including	Projects must have part forming process and assembling process as approved by the Board.	A 4
4.8.13.1 Catalytic Convertor		
4.8.13.2 Exhaust Catalyst		A 4
4.8.13.3 Exhaust Manifold		A 4
4.8.14 Manufacture of Air Conditioning System Parts including	Projects must have part forming process and assembling process as approved by the Board.	
4.8.14.1 Air Compressor		A 4
4.8.15 Manufacture of Body Parts Using Ultimate Tensile Strength Steel	Projects must use Ultimate Tensile Strength (UTS) Steel higher than 700 MPa.	A 4
4.8.16 Manufacture of Bearing for Vehicles		A 4
4.8.17 Manufacture of other vehicle parts		B 1

Activities	Conditions	Incentives
4.9 Building or repair of ships	Projects must obtain ISO 14000 within 2 years from starting date of operation.	
4.9.1 Building or repair of ships not less than 500 tons gross		A 2
4.9.2 Building or repair of ships less than 500 tons gross (only steel or fiber glass ships with installed engine and equipment)		A 2
4.10 Manufacture of train or electric train or equipment or parts (only rail system)		
4.10.1 Manufacture of train, electric train or equipment or parts (only rail systems)		A 2
4.10.2 Restoration of train, electric train or equipment or parts (only rail systems)	Overhaul and repair using advanced technology	A 3
4.11 Manufacture or repair of Aircraft, or Aerospace Devices and Equipment		
4.11.1 Manufacture of Aircraft or Aircraft Parts such as airframe, critical parts (e.g. Engine and parts, Propeller), appliance (e.g. Flight recorder, Radar), equipment and other components		A 1
4.11.2 Manufacture of Onboard devices and equipment (except disposable and reusable aircraft utilities and supplies) such as seats, life vests, trolley, galley, etc.		A 3
4.11.3 Repair of Aircraft or Aircraft parts.		A2
4.11.4 Repair of Onboard Devices and Equipment (except disposable and reusable aircraft utilities and supplies)		A 4

Activities	Conditions	Incentives
4.11.5 Manufacture of Aerospace Devices and Equipment such as devices or equipment related to rockets/spacecraft/ space vehicles/propulsion units and auxiliary equipment, etc.	Must be approved by related agencies such as Geo-Informatics and the Space Technology Development Agency (Public Organization).	A 1
4.11.6 Aerospace Operating Systems such as search, detection, navigation, guidance, aeronautical, nautical systems and instruments, etc.	Must be approved by related agencies such as Geo-Informatics and the Space Technology Development Agency (Public Organization).	A 1
4.12 Manufacture of motorcycles (except less than 248 cc engine displacement)	1. Project must have forming process of engine parts, as follows: Cylinder Head, Cylinder Block, Crankshaft, Crankcase, Camshaft and Connecting Rod 1.1 For manufacturing motorcycles with more than 248 cc engine displacement but less than 500 cc, project must have forming of not less than 4 out of 6 parts. 1.2 For manufacturing of motorcycles with more than 500 cc engine displacement, project must have forming of 2 out of 6 parts. 2. Project must have structural welding process and spray painting process. 3. Investment plan for manufacturing and utilization of parts must be submitted and approved by the Board.	A3 (must follow conditions 1-3) B1 (must follow conditions 2-3)

Activities	Conditions	Incentives
4.16 Manufacture of Hybrid Electric Vehicle (HEV) and parts	1. Must propose an integrated package consisting of vehicle assembly and key parts production or sourcing project, the import and installation plan for machinery, a vehicle assembly plan in the 1st – 3rd years, general parts production and sourcing plan, waste management plan for used batteries and technical training and support plan for local suppliers with not less than 51 percent of Thai shareholders. 2. At least 1 out of the following 4 key parts must be manufactured or used e.g. Battery, Traction Motor, Battery Management Systems (BMS) or Drive Control Unit (DCU), etc. 3. Manufactured vehicles must comply with UN Regulation Type Approval standard in categories L, M or N. 4. Vehicle Assembly and key parts production or usage of at least one key part within three years from the issuance date of the BOI Promotion Certificate. Furthermore, the machinery importation period shall not be extended, except deem it appropriate. 5. Application must be submitted by December 31, 2017. 6. Additional incentives - For an Eco-car project, the investor is allowed to count the production of Hybrid Electric Vehicle (HEV) produced as the actual production of the Eco-car. For the domestic market, the manufactured vehicles must comply with the environmental specifications in the Eco-car announcement.	B 1
4.17 Manufacture of Plug-In Hybrid Electric Vehicles (PHEV) and parts	1. Must propose an integrated package consisting of vehicle assembly and key parts production or sourcing project, the import and installation plan of machinery, vehicle assembly plan in the 1st – 3rd year, general parts production and sourcing plan, waste management plan for used batteries and technical training and support plan for local suppliers with not less than 51 percent of Thai shareholders.	A 4

Activities	Conditions	Incentives
	2. At least 1 out of the following 4 key parts must be manufactured or used, e.g., Battery, Traction Motor, Battery Management Systems (BMS) or Drive Control Unit (DCU). 3. Manufactured vehicles must comply with UN Regulation Type Approval standard in categories L, M or N. 4. Vehicle Assembly and key parts production or sourcing of at least one part must commence within three years from the issuance date of the BOI Promotion Certificate. Nonetheless, the machinery importation period shall not be extended, except deem it appropriate. 5. Application must be submitted by December 31, 2018. 6. Additional incentives 6.1 For project which produces more than one key part, one additional year of the corporate income tax exemption shall be received for each additional production of key part annually but the total exemption period must not exceed 6 years. 6.2 For an Eco-car project, the investor is allowed to count the production of Plug-In Hybrid Electric Vehicle (PHEV) produced as the actual production of the Eco-car. For the domestic market, the manufactured vehicles must comply with the environmental specifications in the Eco-car announcement.	
4.18 Manufacture of Battery Electric Vehicle (BEV) and parts	1. Must submit an integrated package consisting of vehicle assembly and key parts production or sourcing project, the import and installation plan of machinery, vehicle assembly plan in the 1st – 3rd years, general parts production and sourcing plan, waste management plan for used batteries and technical training, and support plan for local suppliers with not less than 51 percent of Thai shareholders.	A 3

Activities	Conditions	Incentives
	2. At least 1 out of the following parts must be manufactured or used, e.g., Batteries, Traction Motors, Battery Management Systems (BMS) or Drive Control Units (DCU). 3. Manufactured vehicles must comply with UN Regulations Type Approval standards in categories L, M or N. 4. Schedules are as follows: 4.1 Within two years from the issuance date of the BOI Promotion Certificate, the import of CBU with the exemption of import duties is allowed for market testing under the board's decision. The machinery importing period will not be extended without a valid reason and reasonable prospects of acceptance of the change. 4.2 Within three years from the issuance date of the BOI Promotion Certificate, the assembling of the Battery Electric Vehicles (BEVs) must commence. 4.3 Within six years from the issuance date of the BOI Promotion Certificate, the manufacturing of at least one key part must be commenced. 5. Application must be submitted by December 31, 2018. 6. Additional incentives 6.1 An additional corporate income tax exemption for three years for project that manufacture or use at least one key part within three years from the issuance date of the BOI Promotion Certificate. 6.2 An additional corporate income tax exemption for two years for project that manufacture or use at least one more keys part in the fourth year from the issuance date of the BOI Promotion Certificate. 6.3 An additional corporate income tax exemption of one year for project that manufacture or use at least one more key part in the fifth year from the issuance date of the BOI Promotion Certificate	

Activities	Conditions	Incentives
	6.4 For project that manufacture or use more than one key part, the corporate income tax exemption will increase one-year per each key part. However, the total corporate income tax exemption period shall not exceed ten years. In case the corporate income tax exemption period exceeds eight years, the project must be engaged in technology transfer by cooperating with educational/research	
4.19 Manufacture of Battery Electric Bus and parts	1. Must submit an integrated package consisting of project vehicle assembly and key parts production or sourcing project, the import and installation plan for machinery, vehicle assembly plan in the 1st – 3rd years, general parts production and sourcing plan, waste management plan for used batteries and technical training and support plan for local suppliers with not less than 51 percent of Thai shareholders. 2. At least 1 out of following parts must be manufactured or used, e.g., Battery, Traction Motor, Battery Management Systems (BMS) or Drive Control Unit (DCU). 3. Vehicle Assembly and key parts production or sourcing must proceed within three years from the issuance date of the BOI Promotion Certificate. In addition, the machinery importation period shall not be extended, unless otherwise deemed necessary. 4. Application must be submitted by December 31, 2018. 5. Additional incentive: Projects which produce or utilize more than one essential parts shall be granted one year of CIT exemption per part. However, the total exemption period must not exceed 6 years	A 4

Activities	Conditions	Incentives
7.9.1.7 Aircraft or Aerospace Industrial Zone or Industrial Estate	1. The total area must not be less than 100 rai. 2. Projects must allocate some or all of its area for bonded warehouse or free zone. 3. Project must have an area for aircraft and parts maintenance and repair centers. 4. Project must have sufficient public utilities and facilities such as roads, rainwater drainage and flood prevention systems, waterworks, wastewater treatment system, telecommunications and electricity systems, fire protection system, industrial waste management system and an appropriate security system as approved by the Board. 5. Project must be approved by related agencies.	A 3
7.27 Manufacture of Electric Vehicle Charging Stations	1. Must submit a plan for equipment and sourcing of parts. 2. Must submit a plan for the development of EV Smart Charging System. 3. Must have at least four chargers with at least one type of quick charge. 4. Must not obtain any rights or benefits from other government sectors. 5. Must obtain ISO 18000 within three years from the date of the issuance of the BOI Promotion Certificate. 6. Application must be submitted by December 31, 2018.	A 3

Electrical & Electronic

Activities	Conditions	Incentives
5.1 Manufacture of electrical products		
5.1.1 Manufacture of advanced technology electrical products	1. The electrical products must be able to connect to Internet of Things; or 2. The electrical products must have circuits or operation control systems, processing systems, embedded systems or embedded software to allow for more complex or variety of functions	
5.1.1.1 With own-design process of the product		A 2
5.1.1.2 Without own-design process of the product		A 3
5.1.2 Manufacture of air conditioners, refrigerators, freezers, washing and drying machines	Products must meet Thailand's Energy Efficiency Standards and have the High Energy Efficiency Label (Label No. 5) from the Ministry of Energy or other equivalent standards from acknowledged institutions.	A 4
5.1.3 Manufacture of other electrical products		B 1
5.2 Manufacture of parts and/or equipment used for electrical products		
5.2.1 Manufacture of electrical parts and/or equipments used for industry: Power Inverter, Distribution Transformer, Main Circuit Breaker		
5.2.1.1 With own-design process of the product		A 3
5.2.1.2 Without own-design process of the product		A 4
5.2.2 Manufacture of LED lamps		A 4
5.2.3 Manufacture of compressors and/or motors for electrical appliances	1. The compressors must be for air conditioners, freezers, refrigerators that meet the Energy Efficiency Standards and have the High Energy Efficiency Label (Label No. 5) from the Ministry of Energy or other equivalent standards from acknowledged institutions.	A 4

Activities	Conditions	Incentives
	2. For the production of motors, product design must be included in the manufacturing process.	
5.2.4 Manufacture of wire harnesses		B 1
5.2.5 Manufacture of parts and/ or equipment for other electrical products		B 1
5.2.6 Manufacture of High Density Energy Storage		
5.2.6.1 High Density Battery	Specific power and number of cycles must be approved by the Board.	A 2
5.2.6.2 Supercapacitor	Specific power and number of cycles must be approved by the Board.	A 2
5.3 Manufacture of electronic products		
5.3.1 Manufacture of organic and printed electronics (OPE)		A 2
5.3.2 Manufacture of telecommunication products		
5.3.2.1 Manufacture of emission, transmission and reception devices used in fiber-optic and wireless communication systems		A 2
5.3.2.2 Manufacture of other telecommunication products		A 3
5.3.3 Manufacture of electronic control and measurement instruments for industrial/ agricultural use		A 2
5.3.4 Manufacture of security control equipment		A 2
5.3.5 Manufacture of audio visual products for offices		A 4
5.3.6 Manufacture of office electronics		A 4
5.3.7 Manufacture of other electronic products		B 1

Activities	Conditions	Incentives
5.4 Manufacture of parts and/or equipment used for electronic products		
5.4.1 Manufacture of parts for organic and printed electronics (OPE)		A 2
5.4.2 Manufacture of solar cells and/or raw materials for solar cells	The manufacturing process and energy yield for the production of solar cells must be approved by the Board.	A 2
5.4.3 Manufacture of parts for telecommunication products		
5.4.3.1 Manufacture of parts for emission, transmission and reception devices used in fiber-optic and wireless communication systems		A 2
5.4.3.2 Manufacture of parts for other telecommunica-tion products		A 3
5.4.4 Manufacture of parts for electronic control and measurement instruments for industrial/agricultural use, medical/scientific devices and automotive industry		A 2
5.4.5 Manufacture of parts for security control equipment		A 2
5.4.6 Manufacture of hard disk drive and/or parts for hard disk drive		
5.4.6.1 Manufacture of advanced technology hard disk drives and/or parts (excluding top covers, base plates or peripherals)	1. The areal density of hard disk drives must not be less than 2,000 gigabits per square inch. 2. The cost of refurbishment of existing machines shall be regarded as an investment and will be taken into account in the calculation of corporate income tax exemption cap. The original cost of existing machines shall not be regarded as an investment.	A 2

Activities	Conditions	Incentives
5.4.6.2 Manufacture of hard disk drives and/or parts (excluding top covers, base plates or peripherals)	The cost of refurbishment of existing machines shall be regarded as an investment and will be taken into account in the calculation of corporate income tax exemption cap. The original cost of existing machines shall not be regarded as an investment.	A 3
5.4.6.3 Manufacture of top covers, base plates or peripherals for hard disk drives		A 4
5.4.7 Manufacture of solid state drives and/or parts for solid state drives	The cost of refurbishment of existing machines shall be regarded as an investment and will be taken into account in the calculation of corporate income tax exemption cap. The original cost of existing machines shall not be regarded as an investment.	A 2
5.4.8 Manufacture of parts and/or equipment for solar-powered products		A 3
5.4.9 Manufacture of semiconductors and/or parts for semiconductors	For the production of integrated circuits, the cost of refurbishment of existing machines shall be regarded as an investment and will be taken into account in the calculation of corporate income tax exemption cap. The original cost of existing machines shall not be regarded as an investment	A 3
5.4.10 Manufacture of equipment and/or parts for photonic devices and/or for photonic integrated systems		A 3
5.4.11 Manufacture of flat panel displays	The manufacturing processes must be approved by the Board.	A 3
5.4.12 Manufacture of flexible printed circuits and/or multi-layer printed circuit boards and/or parts	The manufacturing processes must be approved by the Board.	

Activities	Conditions	Incentives
5.4.12.1 Manufacture of Flexible Printed Circuits and/or Multi-Layered Printed Circuit Boards and/or parts with circuit design process	The manufacturing processes must be approved by the Board.	A 2
5.4.12.2 Manufacture of Flexible Printed Circuits and/or Multi-Layered Printed Circuit Boards and/or parts without circuit design process	The manufacturing processes must be approved by the Board.	A 3
5.4.13 Manufacture of other memory storage equipment		A 4
5.4.14 Manufacture of printed circuit board assembly (PCBA)		A 4
5.4.15 Manufacture of electro-magnetic products		A 4
5.4.16 Manufacture of passive components		A 4
5.4.17 Manufacture of parts for audio visual products		A 4
5.4.18 Manufacture of parts for office electronics		A 4
5.4.19 Manufacture of parts for other electronic products		B 1
5.5 Manufacture of material for microelectronics	1. The manufacturing processes must be approved by the Board.	
5.5.1 Manufacture of wafers	2. The cost of refurbishment of existing machines shall be regarded as an investment and will be taken into account in the calculation of corporate income tax exemption cap. The original cost of used machines shall not be regarded as an investment.	A 2
5.5.2 Manufacture of material based		A 3

Activities	Conditions	Incentives
5.6 Electronics design 5.6.1 Microelectronics design 5.6.2 Embedded system design	1. Projects must have expenses for salaries for electronics design personnel of at least 1,500,000 baht per year. 2. Revenue derived from sales or the provision of services that are directly related to a promoted business or which are from downstream production for commercial purposes, either carried by the promoted companies or sub-contractors, shall be regarded as revenue of such promoted businesses. 3. If located in the science and technology park, promoted by the Board, 50 percent reduction of the corporate income tax for 5 years after the end of its corporate income tax exemption period.	A 1 A 1