

**20th APEC ECONOMIC LEADERS' Declaration  
Vladivostok, Russia**

**ANNEX C**

**APEC LIST OF ENVIRONMENTAL GOODS**

APEC plays an important role in pursuing green growth in the region. While each economy has its own environmental and trade policies, it is vitally important to pursue common approaches to environmental challenges, and take coordinated actions to address climate change, such as promoting trade and investment in goods and services needed to protect our environment and developing and disseminating relevant technologies.

Trade and investment liberalization in environmental goods will help APEC businesses and citizens access important environmental technologies at lower cost, which in turn will facilitate their use and benefit the environment. In addition, it will contribute significantly to APEC's core mission to promote free and open trade and investment, as embodied in the Bogor Goals.

In that light, we are pleased to endorse the below APEC List of Environmental Goods that directly and positively contribute to green growth and sustainable development objectives on which we will reduce applied tariff rates to 5 per cent or less by the end of 2015 taking into account economies' economic circumstances and without prejudice to their positions in the World Trade Organization (WTO), as we committed in 2011.

We commit to continue capacity-building activities to assist economies in implementing tariff reductions on the agreed list of environmental goods.

We believe that reducing our tariffs on environmental goods demonstrates our commitment to pursuing green growth objectives, addressing climate change and securing sustainable economic development, and are committed to continuing APEC's leadership role in this regard.

## APEC LIST OF ENVIRONMENTAL GOODS

HS (2002)	HS (2007)	HS (2012)	HS Code Description	EX-OUT / ADDITIONAL Product Specification	REMARKS / ENVIRONMENTAL BENEFIT
	441872		Other Assembled Flooring Panels, Multilayer, of Bamboo (44187210)		Renewable bamboo-based products are substitutions of wooden necessities. Since bamboo is characterized by short growing cycle, these environment-friendly products can save a great deal of water, soil and air resources.
840290	840290	840290	<p>Steam or other vapour generating boilers (other than central heating hot water boilers capable also of producing low pressure steam); super-heated water boilers. [Ca, J, NZ, K]</p> <p>Steam or other vapour generating boilers (other than central heating hot water boilers capable also of producing low pressure steam); super-heated water boilers; Parts: [US]</p> <p>Parts for super-heated water boilers and steam or other vapour generation boilers (other than central heating hot water boilers) [HK]</p> <p>Super-heated water boilers and parts of steam generating boilers [S, BD]</p>	<p>Parts for 840219x. [Ca, J, NZ, K, Au]</p> <p>Parts for biomass boilers. [US]</p> <p>Management of solid and hazardous waste [BD]</p>	<p>Parts for the biomass boilers described above. [Ca, J, NZ, US, K, HK, Au]</p> <p>Parts for the boilers for the production of heat and power on the basis of (renewable) biomass fuels. [HK]</p> <p>Part for biomass boilers for the production of heat and power on the basis of renewable biomass fuels. This product should be seen in relation to HS840219, biomass boiler. Biomass in heating systems uses agricultural, forest, urban and industrial residues and waste to produce heat and electricity with less effect on the environment than fossil fuels. This type of energy production has a limited long term effect on the environment because the carbon in biomass is part of the natural carbon cycle. [S, BD]</p>
840410	840410	840410	<p>Auxiliary plant for use with boilers of heading 84.02 or 84.03 (for example, economisers, super-heaters, soot removers, gas recovers); condensers for steam or other vapour power units. [C, J, NZ, K, Au, Ru, M, BD]</p> <p>Auxiliary plant for use with boilers of heading 8402 or 8403 (for example, economizers, super-heaters, soot removers, gas recovers'). [US]</p> <p>Auxiliary plant for use with steam or other vapour generating boilers, super-heated water boilers and central heating boilers. [HK]</p> <p>Auxiliary plant for steam, water and central boiler [S]</p>	<p>Auxiliary plant for use with 840219x. [Ca, J, NZ, K, Au]</p> <p>For central heating boilers of heading 8403 [M, BD]</p>	<p>Components of industrial air pollution control plant which minimise the release of pollutants into the atmosphere. This equipment is also used to support waste heat recovery processes in waste treatment, or renewable energy resource recovery applications. [Ca, J, NZ, K, Au, BD]</p> <p>Components of industrial air pollution control plant which minimise the release of pollutants into the atmosphere. This equipment is also used to support waste heat recovery processes in waste treatment, [biomass energy generation - US only] and other renewable energy resource recovery applications. [US, HK, M]</p> <p>These are soot removers and components of industrial air pollution control plant, which minimise the release of pollutants into the atmosphere. This equipment is also used to support waste heat recovery processes in waste treatment or renewable energy resource recovery applications. [S]</p>
840420		840420	Auxiliary plant for use with boilers of heading 84.02 or 84.03 (for example, economisers, super-heaters, soot removers, gas recovers); condensers for steam or other vapour power units.		Used to cool gas streams to temperatures which allow the removal of contaminants, e.g. volatile organic compounds (VOC) like benzene.
840490	840490	840490	<p>Parts for auxiliary plant for boilers, condensers for steam, vapour power unit. [Ca, J, NZ, K]</p> <p>Auxiliary plant for use with boilers of heading 8402 or 8403 (for example, economizers, super-heaters, soot removers, gas recovers); condensers for steam or other vapour power units; Parts. [US, Au, Ru]</p> <p>Parts for subheading 840410100 [M, BD]</p>	Air pollution control [BD]	<p>These parts are used in the repair and maintenance of the equipment classified under 840410 above. This secondary equipment is also used to support waste heat recovery processes, such as boilers mentioned above, in waste treatment, or renewable energy resource recovery applications. [C, J, NZ, US, Au, R, Th, M]</p> <p>Components of industrial air pollution control plant which minimise the release of pollutants into the atmosphere. This equipment is also used to support waste heat recovery processes in waste treatment, or renewable energy resource recovery applications. [BD]</p>

840690	840690	840690	Parts for steam and other vapour turbines. [Ca, J, NZ, K, Au, BD]  Parts of steam turbines. [US, M]	Optional ex-outs may include parts suitable for use with stationary steam turbines over 40MW; stationary steam turbines not over 40 MW, other vapour turbines; parts for 840681x and 840682x. [Ca, J, NZ, K, Au]  Parts for 840681x and 840682x. [US]  Renewable energy plant [BD]  Only for stator blades, rotors and their blades [R]	Parts used for repair and maintenance of energy recovery turbines listed in 840681 and 840682 above. [Ca, J, NZ, K, Au]  Parts for the aforementioned ex-outs/goods of 8406 [US]  Turbines designed for the production of geothermal energy (renewable energy) and co-generation ((CHP) which allows for a more effective use of energy than conventional generation) [BD]
841182	841182	841182	Other gas turbines of a power exceeding 5,000 kW. [Ca, J, NZ, US, Au, Th, S, BD]  Gas turbines, except turbo-jets and turbo-propellers, of a power exceeding 5,000 kW. [HK]  Turbojets, turbo-propellers and other gas turbines of a power exceeding 5,000 kW [M]	Possible ex-out may include gas turbines that burn natural gas [Au]  Gas turbines for electrical generation from recovered landfill gas (exceeding 5,000 kW) [BD]  Of a power exceeding 5000 kW but not exceeding 50 000 kW [R]	Gas turbines for electrical power generation from recovered landfill gas, coal mine vent gas, or biogas (clean energy system). Note that these turbines do "exceed 5,000 kW". [Ca, J, HK, NZ, Au, M, BD]  Gas turbines for clean power generation including recovered landfill gas, coal mine vent gas, or biogas. [US]  Gas turbines are used for electrical power generation from recovered landfill gas, coal mine vent gas, biogas or national gas. Lower emission of pollutants compared with traditional fire power generation methods. [S]
		841199	Parts of gas turbines.	Parts for 841181 and 841182.	Parts for gas turbines described above.
	841290	841290	Engine and motor parts, nesoi [US]  Parts of the engines & motors of 8412.10-8412.80 [S, BD]	Wind turbine blades and hubs [US]  Only for civil aviation [R]	These blades and hubs are integral components to wind turbines. [US]  Parts thereof wind turbines. Parts used for repair and maintenance of wind turbines with the attendant benefits. [S, BD]
841780	841780	841780	Other industrial or laboratory furnaces and ovens, including incinerators, non-electric [Ca, J, NZ, K, Au, Ru, M, BD]  Industrial or laboratory furnaces and ovens, including incinerators, nonelectric, and parts thereof: Other, except parts. [US]  Municipal Waste Incinerator (ex-84178090); incinerators for radioactive waste (84178020) [Ch]	Optional ex-outs may include: waste incinerators; heat or catalytic incinerators. [Ca, J, NZ, K, Au, M]  Waste incinerators; Heat or catalytic incinerators [US]  Waste incinerator; Flue gas treatment system for incinerator [BD]	These products are used to destroy solid and hazardous wastes. Catalytic incinerators are designed for the destruction of pollutants (such as VOC) by heating polluted air and oxidation of organic components. [Ca, J, NZ, K, Au, M, US, BD]  Used to achieve innocent treatment and disinfection of household waste through high-temperature incineration disposal. Used for radioactive waste disposal. [Ch]
841790	841790	841790	Industrial or laboratory furnaces and ovens, including incinerators, non-electric: Parts. [Ca, J, NZ, K, Au, Ru, M]  Industrial or laboratory furnaces and ovens, including incinerators, nonelectric, and parts thereof: Parts. [US]  Parts [BD]	Optional ex-outs may include: parts for 841780x. [Ca, J, NZ, K, Au]  Parts of waste incinerators and heat or catalytic incinerators. [US, BD]	These parts can help maintain and repair products that are used to destroy solid and hazardous wastes. Similarly, the parts for catalytic incinerators can help maintain and repair items that can assist in the destruction of pollutants (such as VOC) by heating polluted air and oxidation of organic components. [Ca, J, NZ, US, K, Au, R, BD]
841919	841919	841919	Instantaneous or storage water heaters, non-electric (other than instantaneous gas water heaters). [Ca, J, NZ, K, HK, BD]  Instantaneous or storage water heaters, non-electric: Other [US, Au]  Solar water heaters [S]  Solar water heaters (84191910) [Ch]	Solar water heaters. [Ca, J, NZ, US, K, HK, Au, BD]  Excluding other - - Domestic; of copper and other [M]	Uses solar thermal energy to heat water, producing no pollution. Use of solar water heating displaces the burning of other, pollution-creating fuels. [Ca, J, NZ, US, K, HK, Au, Th]  Uses solar energy to heat water, producing no pollution. Use of solar water heating displaces the burning of other pollution-creating fuels. [S, BD]  Used for water heating through solar energy which is regenerative and clean compared to burning fuel. [Ch]

841939	841939	841939	Dryers, other:	Sludge driers.	Device used in waste water management, which requires sludge to be treated
841960	841960	841960	Machinery for liquefying air or other gases.		For separation and removal of pollutants through condensation. [Ca, J, NZ, US, K, Au]  Air Pollution Control. Used in condensation to remove condense contaminants from vapor to liquid form for easier removal and storage [Th]
841989	841989	841989	Machinery, plant or laboratory equipment, whether or not electrically heated (excluding furnaces, ovens and other equipment of heading 85.14), for the treatment of materials by a process involving a change of temperature such as heating, cooking, roasting, distilling, rectifying, sterilising, pasteurising, steaming, drying, evaporating, vaporising, condensing or cooling, other than machinery or plant of a kind used for domestic purposes; instantaneous or storage water heaters, non-electric. [Ca, J, NZ, Au]  Industrial machinery, plant or equipment for the treatment of materials, by process involving a change in temperature, nesoi. [US]  Machinery, plant or laboratory equipment - Other machinery, plant and equipment: Other. [Ru]  Chlorine dioxide generator; Other Machinery, Plant & Equip For Treat of Mat. B (84198990) [Ch]  Other machinery, plan or laboratory equipment [S]	Evaporators and dryers, for water and waste water treatment. Condensers and cooling towers. Biogas reactors; digestion tanks and biogas refinement equipment. [Ca, J, NZ, Au]  Evaporators and dryers, for water and waste water treatment. Condensers and cooling towers. Anaerobic biogas reactors, digestion tanks and biogas refinement equipment. PV cell coaters. [US]	For processing water and waste water and the separation and removal of pollutants through condensation. Includes fluidised bed systems (bubbling, circulating, etc.) and biomass boilers. Can also help anaerobic digestion of organic matter. [Ca, J, NZ, Au]  For processing water and waste water and the separation and removal of pollutants. Includes fluidised bed systems (bubbling, circulating, etc.) and biomass boilers. Can also help anaerobic digestion of organic matter. Wet cooling towers are very efficient air scrubbers. PV cells generate renewable energy. [US]  Used in producing chlorine dioxide. These instruments are used to measure, record, analyse and assess environmental samples or environmental influences. [Ch]  Thermal cyclers serving multiple environmental purposes.
841990	841990	841990	Parts of machinery, plant and equipment [BD] of heading No 84.19. [Ca, J, NZ, CT, Au, Ru]  Parts of machinery, plant or laboratory equipment for the treatment of material involving temperature change (except domestic machinery), nesoi. [US]  Parts of machinery, plant or laboratory equipment of heading 84.19 [S]  Parts, other [M]  Parts of Water Heaters (84199010) [Ch]	Optional ex-outs may include: Parts for 8419.19 ex, including for solar boiler/water heater; insulation, temperature sensor for solar boiler/water heater; Differential temperature controller for solar boiler/water heater; Evacuated glass tubes for solar boiler/water heater; Heat pipes for solar boiler/water heater. Parts of 841940x, 841950x, 841960, 841989x [Ca, J, NZ, CT, Au]  excluding 8411990100, 841990200, 841990300 [M]  Solar water heater parts [BD]	Parts used in the maintenance and repair of solar water heaters (etc). which use solar thermal energy to heat water, producing no pollution. Use of solar water heating displaces the burning of other, pollution-creating fuels. [Ca, J, NZ, CT, Au]  Parts for aforementioned goods/ex-outs of heading 8419. [US]  Parts used in the maintenance and repair of the above products. [S]  These are parts and accessories for the solar water heater classified in 8419 and described above [BD]  Used for water heating through solar energy which is regenerative and clean compared to burning fuel. [Ch]
842121	842121	842121	Filtering or purifying machinery and apparatus for liquids: for filtering or purifying water. [Ca, J, NZ, K, Au, Ru, S]  Water filtering or purifying [M] machinery and apparatus. [US, BD]  Household filtering or purifying water machinery and equipment (84212110), Device for the removal of Heavy metal ions for industry uses; Membrane bioreactor; High rate anaerobic reactors; reverse	Waste water management [BD]	Used to filter and purify water for a variety of environmental, industrial and scientific applications, including water treatment plants and wastewater treatment facilities. [Ca, J, NZ, K, Au]  Used to filter and purify water for a variety of environmental, industrial and scientific applications, including water treatment plants and wastewater treatment facilities. This line also includes newer water/wastewater filtration technologies like ozone and ultraviolet disinfection equipment. [US]

			osmosis filters for industry uses; Water purification Machine; EDI ultra-pure water equipment (ex-84212190) [Ch]		For wastewater. Used to filter and purify water for a variety of environmental, industrial and scientific applications including water treatment plants and wastewater treatment facilities. For instance, membrane systems can be used to produce water from wastewater, seawater or brackish groundwater, either through purification or filtration; [S]  Such devices are essential components for filtration and purification of drinking water. [Ch]
842129	842129	842129	Filtering or purifying machinery and apparatus for liquids: other. [Ca, J, NZ, US, K, Au]  Other [M]  Press Filters (84212910); etching solution recycling equipment for printed circuit board; equipment for the recycling and treatment of reclaimed water; ion exchanger; complete sets of equipment for alkali recovery of black liquor; aerator; electro dialysis device (ex-84212990) [Ch]	Refrigerant recovery and recycling units. [US]  excluding oil filter and for use in oil drilling operation [M]	Used to remove contaminants from wastewater, by chemical recovery, oil/water separation, screening or straining. [Ca, J, NZ, K]  These units recover both liquid and gaseous refrigerants from refrigeration and air conditioning equipment and purify the refrigerant after its recovery. This process prevents the emission of a variety of air pollutants. [US]  Excluding other filters of a kind used as components in motor vehicles. [Au]  Used for filtration by injecting mechanical force on filtering media. [Ch] Etching solution is an essential component of PCB etching but is on kind of high pollutant. These equipment are designed for recycle-processing-reuse of etching solution through solvent extraction, membrane treatment and electrode method. [Ch] These equipment are used to turn wastewater into nonpotable water, which can be widely applied in irrigation, afforestation, flushing supply, etc. [Ch] These equipments are designed for water softening, alkali removal and desalination by ion exchange resins swapping bits of themselves with ions which have same electrical property in the pre-treated water under certain conditions. [Ch] These equipment, designed for the purification and recycling of black liquor, effectively eliminate pollution and improve resource utilization. Applications include pulp washing machine, pre-hung filter, putting-down machine, causticizer, etc. [Ch] Aerators both above and below the water's surface are essential components of oxygenic aeration of drainage. [Ch] Electrodialyzers exploit ion exchange membrane and DC electric field, making electrolytes develop migration selectivity, thereby desalinate the water. [Ch]
842139	842139	842139	Filtering or purifying machinery and apparatus for gas (other than intake air filters for internal combustion engines). [Ca, J, NZ, K, S]  Filtering or purifying machinery and apparatus for gases, nesoi. [US, Au, Th]  Laminar flow units [M]  Filtering Purifying Machines For Gases Nes, Househ (84213910); Electrostatic Dust Collectors For Industry Uses(84213921); Baghoused Dust Collectors For Industry Uses (84213922); Cyclone Dust Collectors For Industry Uses	Optional ex-out may include: Catalytic converters / Gas separation equipment / Pneumatic fluid power filters rated at 550 kPa or greater / Industrial gas cleaning equipment / Electrostatic filters (precipitators). [Ca, J, NZ, K]  Excluding other filters of a kind used as components in motor vehicles. [Au] Catalytic converters / Dust collection and air purification equipment / Gas separation equipment / Pneumatic fluid power filters rated at 550 kPa or greater / Industrial gas cleaning	Physical, mechanical, chemical or electrostatic filters and purifiers for the removal of COV, solid or liquid particles in gases, etc. [Ca, J, NZ, K, Au]  Catalytic converters convert harmful pollutants, like carbon monoxide, into less harmful emissions. Other technologies in this line include physical, mechanical, chemical and electrostatic filters and purifiers for the removal of VOCs, solid or liquid particles in gases, etc. [US]  For wastewater. Used to filter and purify water for a variety of environmental, industrial and scientific applications including water treatment plants and wastewater treatment facilities. For instance, membrane systems can be used to

			(84213923); Other Dust Collectors for Industry Uses (84213929); Flue Gas Desulfurization Apparatus (84213940); Spraying Saturator; Concentrated adsorption - catalytic combustion equipment; Activated carbon fiber - granular activated carbon equipment; (ex-84213990) [Ch]	equipment / Electrostatic filters (precipitators) / Ozone disinfection equipment. [US]  possible ex-out: air purifier and laminar flow units [M]  Laminar flow units, catalytic converter and carbondioxide removal unit imported to use at natural gas service station [Th]	produce water from wastewater, seawater or brackish groundwater, either through purification or filtration. [S]  Air Pollution Control [Th]  Indoor hazardous gas purification equipment, especially for formaldehyde and benzene. [Ch]
842199	842199	842199	Centrifuges, including centrifugal dryers; filtering or purifying machinery and apparatus, for liquids or gases: parts (other than of centrifuges and centrifugal dryers): filtering or purifying machinery and apparatus for water and parts thereof. [Ca, J, NZ, K] Parts for filtering or purifying machinery and apparatus for liquids or gases [US] Centrifuges, including centrifugal dryers; filtering or purifying machinery and apparatus, for liquids or gases: parts (other) [Au] for subheading 842129300 [M, BD]  Parts Of Household Filtering and Purifying Machines For Gases (84219910) [Ch]	Parts for 842121 and 842129 [Ca, J, NZ, K], excluding parts for other filters of a kind used as components in motor vehicles [Au]. Parts for 842121, 842129x and 842139 [US].  Excluding for subheadings 842123100, 842129510 [M, BD].	Including sludge belt filter presses and belt thickeners [Ca, J, NZ, K, Au].  Parts for aforementioned goods/ex-outs of heading 8421. [US]
847420	847420	847420	Crushing or grinding machines. [Ca, J, NZ, US, K, CT, Au, Ru]  Crushing/grinding machines for earth/stone/ores/other mineral substance, in solid (incl. powder/paste) form [S]  Machinery for sorting, screening, separating, washing, crushing, grinding, mixing or kneading earth, stone, ores or other mineral substances, in solid (including powder or paste) form; machinery for agglomerating, shaping or moulding solid mineral fuels, ceramic paste, unhardened cements, plastering materials or other mineral products in powder or paste form; machines for forming foundry moulds of sand. Crushing or grinding machines, mixing or kneading machines [M]	excluding concrete or mortar mixers [M, Au]	Used for solid waste treatment or recycling.  Waste compactor machines. Used for solid waste treatment or recycling. [S]
847982	847982	847982	Mixing, kneading, crushing, grinding, screening, sifting, homogenising, emulsifying or stirring machines not elsewhere specified in Chapter 84. [Ca, J, NZ, K, CT, S]  Mixing, kneading, crushing, grinding, screening, sifting, homogenizing, emulsifying or stirring machines. [US, Ru, BD]  Waste sorting, screening, crushing, grinding, shredding, washing and compacting devices. Agitator for wastewater treatment; flash mixer and flocculator. [Au]  Dosing and mixing equipment for water treatment (ex-84798200); Recycling equipment for waste plastics /rubber /broken tire (84798200) [Ch]	Waste sorting, screening, crushing, grinding, shredding, washing and compacting devices. Agitator for wastewater treatment; flash mixer and flocculator. [Ca, J, NZ, K, US, CT]  Other machines and mechanical appliances: Mixing, kneading, crushing, grinding, screening, sifting, homogenising, emulsifying or stirring machines. [Au]  Waste compactor machines [BD]	Used to prepare waste for recycling; mixing of wastewater during treatment; preparing organic waste for composting; (composting can minimise the amount of waste going to landfill as well as recovering the valuable nutrient and energy content of the waste). [Ca, J, NZ, K, CT, Au]  Used to prepare waste for recycling; removing or shredding the rags and debris typically found in wastewater; mixing of wastewater during treatment; preparing organic waste for composting (composting can minimise the amount of waste going to landfill as well as recovering the valuable nutrient and energy content of the waste). [US, BD]  Waste separator machines. Prepares waste for recycling; separating waste allows for more efficient treatment of each type; for example, separating organic waste allows for composting, which minimises the amount of waste going to landfill as well as recovering the

					valuable nutrient and energy content of the waste). [S] These equipments are used to release and mix medicament, which is an essential step of putting flocculant in wastewater in water treatment industry. These equipments are designed for recycling waste tires. [Ch]
847989	847989	847989	Machines and mechanical appliances having individual functions, not specified or included elsewhere in this Chapter: Other. [Ca, J, NZ, US, CT, Ru]  Other machines & mechanical appliances, other than Machines & mechanical appliances for treating metal, incl. Industrial catalysers, electric wire coil-winders/ Mixing/ kneading/ crushing/ grinding/ screening/ sifting/ homogenising/ emulsifying/ stirring machines [S]  Air Humidifiers Or Dehumidifiers (84798920); Machines For Squeezing Radioactive Waste (84798950); Suction Machine; Mud Scraper; Sand suction machine; Trash compactor; Vacuum extruder for making hollow brick with Gangue and fly ash; (Fan) muffler (ex-84798999) [Ch]	Optional ex-outs may include; trash and other waste presses; shredders; dust collection and storage devices; water and wastewater collecting and sampling equipment; chlorine generators; equipment for solid/liquid separation; flocculation or thickening of sewage sludge; machinery and apparatus for landfill gas monitoring; anaerobic digesters for treatment of organic waste including production of biogas; machinery and apparatus for landfill leachate treatment; machinery, apparatus and vehicles for composting; soil sampling equipment; soil remediation equipment; machines and appliances for oil spill recovery; and aquatic weed harvesters. [US, CT]  Excluding machines and mechanical appliances used as components in motor vehicles. [Au]	Machines and appliances designed for a wide range of areas of environmental management including waste, waste water, drinking water production and soil remediation. In-vessel composting systems can handle large amounts of waste and speed up decomposition. Trash compactors reduce the volume of solid waste, allowing more efficient transport and disposal.  Very broadly, products under HS847989 are machines and appliances designed for a wide range of areas of environmental management, including waste, waste water, drinking water production and soil remediation. [S]  Parts to ensure the balance of indoor humidity. Travelling suction dredgers are designed for sewage treatment plants and horizontal sedimentation tanks of waterworks. These machines can scrape and assemble the sludge to the mouths of their pumps and remove it from sewage tank without stop. [Ch]
847990	847990	847990	Parts of the mach. and mech. appls. of 84.79 [Ca, J, NZ, CT, US, Ru]  Parts of Machines & mechanical appliances having individual functions, not specified/incl. elsewhere in this Ch. [S]  Parts Of Air Humidifiers Or Dehumidifiers (84799020) [Ch]	Parts for 847982x and 847989x. [US, CT]  Excluding machines and mechanical appliances used as components in motor vehicles. [Au]	See the environmental benefit under 847989 [Ca, J, NZ]  Parts for aforementioned goods/ex-outs of heading 8479. [US]  Parts thereof waste separator/ compactor machines. Parts used for the maintenance and repair of waste separators and compactor machines, with the attendant benefits, for example, membrane systems which can be assembled to recover resources from waste. [S]  Parts to ensure the balance of indoor humidity [Ch]
850164	850164	850164	AC generators (alternator), of an output exceeding 750 kVA	To be used with turbines and generators in combination to produce electricity from renewable energy fuels [BD]	Used in conjunction with boiler and turbines (also listed under 840681 and 840682) to generate electricity in renewable energy plants. Must use these turbines and generators in combination to produce electricity from renewable fuels (e.g., biomass). Size is "exceeding 750 kVA." [Ca, J, NZ, K, Au, BD]  Used in conjunction with boiler and turbines to generate electricity in renewable energy plants. Must use these turbines and generators in combination to produce electricity from renewable fuels (e.g., biomass). [US]
850231	850231	850231	Other electric generating sets: Wind-powered. [Ca, J, NZ, US, K, HK, Ru, M]  Wind-powered electric generating sets [S]  Wind-powered electric generating equipment [T]	Amorphous Transformers [BD]	Electricity generation from a renewable resource (wind). [Ca, J, NZ, US, K, HK, BD]  For wind turbines. Used to generate electricity from wind power - a form of renewable energy. [S]  Some heat exchanges are specifically designed for use in relation to renewable energy uses such as geothermal energy. Electricity

			Electric generating sets and rotary convertors: Wind-powered [BD] Wind-Powered Electric Generating Sets (85023100) [Ch]		generation from a renewable source (wind) [M] Used to produce electricity from wind energy. [Ch]
850239		850239	Electric generating sets and rotary convertors: other. [Ca, J, NZ, K, Ru, BD] Generating sets, electric, nesoi. [US, Au] Biogas generator sets; Gas Generator (ex-85023900) [Ch]	Optional ex-outs may include: combined heat and power systems using biomass and/or biogas; Portable solar power generation equipment; solar power electric generating sets; Small hydro powered generating plant; Wave power generating plant; and Gas turbine sets for biomass plants [Ca, J, NZ, K] and for waste heat applications [Au] Small hydro, ocean, geothermal and biomass gas turbine generating sets. [US] For heat recovery systems [BD]	Combined heat and power systems produce usable power (usually electricity) and heat at the same time. Micro combined heat and power systems are very efficient for domestic use, particularly in places where reticulated natural gas and hot water central heating are the norm. 'Distributed generation' also minimises transmission losses through national grids, reducing the need to increase centralised generating capacity and transmission networks. [Ca, J, NZ, K, Au, BD] Electricity generation from renewable resources. [US] Used to produce electricity from methane. [Ch]
850300	850300	850300	Parts suitable for use solely or principally with the machines of heading 8501 or 8502. [Ca, J, NZ, CT, Au, Ru, Th, M, BD] Parts for 850231 and optional ex-out may include: 850239x. Parts suitable for use solely or principally with the machines of heading 85.01 or 85.02 Parts of the generators and generating sets listed under HS 850231 (for renewable energy systems). Relevant parts include for instance nacelles and blades for wind turbines. [S] Parts of Wind-Powered Electric Generating Sets (85030030) [Ch]	Parts for 850231 and optional ex-out may include : 850239x.[Ca, J, NZ, K, CT, Au] Parts for 850161, 850162, 850163, 850164, 850211x, 850212x, 850213x, 850220x, 850231 and 850239x. [US] Combined cycle generator parts [BD]	Parts of the generators and generating sets listed under 848340 (for renewable energy systems). Relevant parts include for instance nacelles and blades for wind turbines. [Ca, J, NZ, K, M] See environmental benefit under 847989 [CT] Parts for aforementioned goods/ex-outs of headings 8501 and 8502. [US] Parts of the generators and generating sets listed under HS 850231 (for renewable energy systems). Relevant parts include for instance nacelles and blades for wind turbines. Renewable Energy [S] Parts and accessories for electricity generation from renewable resource. [BD]
		850490	Parts for electrical transformers, static convertors and inductors	Parts for 850440x Not magnetic ferrite memory [R]	Used to convert DC current from renewable energy generating sets into conventional AC electricity.
851410	851410	851410	Resistance heated furnaces and ovens Industrial or laboratory electric furnaces and ovens (including those functioning by induction or dielectric loss); other industrial or laboratory equipment for the heat treatment of materials by induction or dielectric loss: resistance heated furnaces and ovens [M] Controlled Atmosphere Heat Treatment Furnace (85141010); Industrial / Lab Electric Resistance Heated Furnace (85141090) [Ch]	Optional ex-outs may include: waste incinerators and heat or catalytic incinerators. [Ca, J, NZ, K, CT, Au]	These products are used to destroy solid and hazardous wastes. Catalytic incinerators are designed for the destruction of pollutants (such as VOC) by heating polluted air and oxidation of organic components. These instruments are used to measure, record, analyse and assess environmental samples or environmental influences [Ch]
851420	851420	851420	Furnaces and ovens; functioning by induction or dielectric loss. Industry / Lab Electric Induction or Dielectric Fu (85142000) [Ch]	Optional ex-outs may include: waste incinerators and heat or catalytic incinerators. [Ca, J, NZ, K, CT, Au]	These products are used to destroy solid and hazardous wastes. Catalytic incinerators are designed for the destruction of pollutants (such as VOC) by heating polluted air and oxidation of organic components. These instruments are used to measure, record, analyse and assess environmental samples or environmental influences. [Ch]
851430	851430	851430	Other furnaces and ovens. [Ca, J, NZ, K, CT, Au, Ru, M] Industrial or laboratory electric furnaces and ovens, nesoi. [US]	Optional ex-outs may include: waste incinerators and heat or catalytic incinerators. [Ca, J, NZ, US, K, CT, Au]	Catalytic incinerators are designed for the destruction of pollutants (such as VOC) by heating polluted air and oxidation of organic components. [Ca, J, NZ, K, CT, Au]

			Industrial & Laboratory Electric Furnaces & Ovens (85143000) [Ch]		These products are designed for the destruction of pollutants (such as VOCs) embedded in solid and hazardous wastes. Pollutants are destroyed by heating polluted air and oxidizing organic components. [US]  These instruments are used to measure, record, analyse and assess environmental samples or environmental influences. [Ch]
851490	851490	851490	Parts of industrial or laboratory electric furnaces and ovens; other laboratory induction or dielectric heating equipment. [Ca, J, NZ, K, CT, M]  Parts for industrial or laboratory electric furnaces and ovens (including those functioning by induction or dielectric loss); parts for other industrial or laboratory equipment for the heat treatment of materials by induction or dielectric loss. [US, Au, Ru]	Optional ex outs include: Parts for 851410x, 851430x and 851430x. [Ca, J, NZ, K, CT, Au]  Parts for 851410, 851420 and 851430. [US]	Parts for the equipment listed will facilitate the destruction of pollutants (such as VOC) by heating polluted air and oxidation of organic components. [Ca, J, NZ, K, CT, Au]  Parts for aforementioned goods of heading 8514. [US]
854140	854140	854140	Photosensitive semiconductor devices, including photovoltaic cells whether or not assembled in modules or made up into panels; light emitting diodes. [C, J, NZ, US, K, HK, CT, Au, Th, S, M, BD]  Diodes, transistors and similar semiconductor devices; photosensitive semiconductor devices, including photovoltaic cells whether or not assembled in modules or made up into panels; light emitting diodes; mounted piezo-electric crystals: Photosensitive semiconductor devices, including photovoltaic cells whether or not assembled in modules or made up into panels; light emitting diodes [M]  Solar Cells (85414020) [Ch]	Photovoltaic cells, modules and panels. [Ca, J, NZ, US, K, HK, CT, Au, BD]  Photosensitive semiconductor devices, including photovoltaic cells whether or not assembled in modules or made up into panels; light emitting diodes [M]	Solar photovoltaic cells generate electricity in an environmentally benign manner (with no emissions, noise or heat generated). They are particularly suited to electricity generation in locations remote from an electricity grid. [Ca, J, NZ, US, K, CT, Au, Th. M, BD]  Generate electricity in an environmentally sound manner (with no emissions or noise generated). [S]  Solar batteries are eco-friendly(emission-free,noiseless,non-hear generation)and are especially applicable for power supply in remote area. [Ch]
854390	854390	854390	Parts of the machines and apparatus of 85.43 [Ca, Ja, NZ, K, CT, Au, Ru, S]  Parts of other machines / apparatus of heading 85.43 (85439090) [Ch]	Parts for 854389x. [Ca, Ja, NZ, K, CT, Au]	Water disinfection.  Parts thereof UV disinfection ozonisers. Parts used in maintenance and repair of the UV disinfection instruments. UV light is extremely effective in killing and eliminating bacteria, yeasts, viruses, moulds and other harmful organisms. UV systems can be used in conjunction with sediment and carbon filters to create pure drinking water. Water disinfection Ozone (O3) can be used as an alternative to chlorine for water disinfection. [S]  These instruments are used to measure, record, analyse and assess environmental samples or environmental influences. [Ch]
		901380	Optical devices, appliances and instruments, nesoi	Solar heliostats.	Heliostats orient mirrors in concentrated solar power systems to reflect sunlight on to a CSP receiver.
		901390	parts and accessories for optical devices, appliances and instruments, nesoi	Parts for solar heliostats	Heliostats orient mirrors in concentrated solar power systems to reflect sunlight on to a CSP receiver.
901580		901580	Other surveying, hydrographic, oceanographic, hydrological, meteorological or geophysical instruments and appliances, excluding compasses, not elsewhere specified in 90.15 [Ca, J, NZ, K, CT]  Surveying instruments and		Includes instrument and appliances necessary for measuring the ozone layer and to monitor, measure and assist planning for natural risks such as earthquakes, cyclones, tsunamis etc.

			appliances, hydrographic, oceanographic, hydrological, meteorological or geophysical instruments and appliances nesoi [US, Au]		
902610	902610	902610	<p>Instruments for measuring or checking the flow, level, pressure or other variables of liquids or gases. [Ca, J, NZ, K]</p> <p>Instruments and apparatus for measuring or checking the flow or level of liquids. [US, CT, Au, BD]</p> <p>Instruments and apparatus for measuring or checking the flow, level, pressure or other variables of liquids or gases (for example, flow meters, level gauges, manometers, heat meter), excluding instruments and apparatus of heading 9014, 9015, 9028 or 9032. For measuring or checking the flow or level of liquids [M]</p> <p>Instruments / Apparatus For Measure / Checking Liq (90261000) [Ch]</p>	<p>Air quality monitors; and dust emissions monitors. [Ca, J, NZ, K]</p> <p>Excluding gauges of a kind used as components in motor vehicles. [Au]</p> <p>Air quality monitoring; automated air quality monitoring [BD]</p>	<p>Monitors to measure air pollution; basis for possible correcting measures (notably in view of health effects). [Ca, J, NZ, K]</p> <p>Meters, which check and record the level and/or flow of liquids or gases, are routinely used during complex auditing and testing to ensure the efficient operation of environmental systems such as water and wastewater treatment plants, air pollution control systems, and hydroelectric facilities. [US, CT, Au, BD]</p> <p>These instruments are used to measure, record, analyse and assess environmental samples or environmental influences. [Ch]</p>
902620	902620	902620	<p>Instruments and apparatus for measuring or checking pressure. [Ca, J, NZ, K, CT, Au]</p> <p>Instruments and apparatus for measuring or checking pressure of liquids or gases, nesoi. [US]</p> <p>For measuring and checking pressure [M]</p> <p>Other Instruments / Apparatus For Measuring / Chec (90262090) [Ch]</p>	<p>Excluding gauges of a kind used as components in motor vehicles. [Au]</p>	<p>Manometers (devices that measure pressure) are used in power plants, water delivery systems, and other applications such as monitoring indoor air. There are two principal types: digital manometers and tube manometers, both of which have important environmental applications. [Ca, J, NZ, US, K, CT, Au]</p> <p>These instruments are used to measure, record, analyse and assess environmental samples or environmental influences. [Ch]</p>
902680	902680	902680	<p>Other instruments and apparatus [Ca, J, NZ, K, CT, Au, M]</p> <p>Instruments and apparatus for measuring or checking other variables of liquids or gases, nesoi. [US]</p>	<p>Excluding gauges of a kind used as components in motor vehicles. [Au]</p>	<p>These instruments include heat meters that are used to monitor and measure the distribution of heat from geothermal or biomass district heating systems. [Ca, J, NZ, US, K, CT, Au]</p>
902690	902690	902690	<p>Parts and accessories [M] for articles of subheading 9026. [Ca, J, NZ, CT, K]</p> <p>Parts and accessories for instruments and apparatus for measuring or checking the flow, level, pressure or other variables of liquids or gases, nesoi. [US]</p> <p>Instruments and apparatus for measuring or checking the flow, level, pressure or other variables of liquids or gases (for example, flow meters, level gauges, manometers, heat meters), excluding instruments and apparatus of heading 90.14, 90.15, 90.28 or 90.32 [Au]</p> <p>Parts of liquid and gas measurement/ test instrument (90269000) [Ch]</p>		<p>These are parts for the instruments and devices in 9026.10, 9026.20, and 9026.80. [Ca, J, NZ, US, CT, Au, K]</p> <p>These instruments are used to measure, record, analyse and assess environmental samples or environmental influences. [Ch]</p>
902710	902710	902710	<p>Gas or smoke analysis apparatus</p> <p>Automatic NOX and NO2 sampler and measuring apparatus; Automatic SO2 sampler and measuring</p>	<p>Air pollution emission monitoring systems</p>	<p>Gas analysers are designed to continuously monitor single or multiple gas components, and such an instrument is used to analyse air emissions from automobiles.</p>

			apparatus (ex-90271000) [Ch]	<p>To be used for monitoring / analysing environmental pollution. ii. Gas analysers are designed to continuously monitor single or multiple gas components and such an instrument is used to analyse air/gas emissions. Equipment used in the measurement, recording, analysis and assessment of environmental samples or environmental impact. iv. This Facility can take precautionary measures to control air pollution. [M]</p> <p>These instruments are used to measure, record, analyse and assess environmental samples or environmental influences. [Ch]</p>
902720	902720	902720	Chromatographs and electrophoresis instruments	<p>Gas and liquid chromatographs use an analytical method where a physical separation of the sample components occurs prior to detection. These instruments can be used to monitor and analyse air pollution emissions, ambient air quality, water quality, etc. Electrophoresis instruments can be used to monitor and analyse materials such as particulates emitted from incinerators or from diesel exhaust.</p> <p>DNA Sequencers, Polymerase Chain Reaction (PCR) Systems. Thermal cyclers serving multiple environmental purposes, for example: Environmental Monitoring, Waste Management, Water Treatment, Pollution Remediation, Renewable Energy, Natural Resources Protection, Endangered Species Protection, Genetically Modified Organisms (GMO) Detection [S]</p>
902730	902730	902730	Spectrometers, spectrophotometers and spectrographs using optical radiations (ultraviolet, visible, infrared)	<p>Spectrometers are used in a wide range of environmental applications, including to identify and characterise unknown chemicals and in environmental applications to detect toxins and identify trace contaminants. They are also used for qualitative and quantitative analysis inter alia in quality control departments, environmental control, water management, food processing, agriculture and weather monitoring.</p> <p>Used in a wide range of environmental applications, including identification of unknown chemicals, toxins and trace contaminants. Also used for qualitative and quantitative analysis in quality control departments, environmental control, water management, food processing, agriculture and weather monitoring. [S]</p>
902750	902750	902750	<p>Other instruments and apparatus using optical radiations (UV, visible, IR) [Ca, J, NZ, CT, Au, K, S]</p> <p>Instruments and apparatus for physical and chemical analysis using optical radiations (ultraviolet, visible, infrared), nesoi. [US]</p> <p>Automatic on-line monitor on UV absorption water quality; Automatic infrared oil content analyzer (ex-90275000) [Ch]</p>	<p>These instruments can be used for chemical, thermal, or optical analysis of samples, including water quality photometers which are used to determine the concentration of a solution from its colour intensity. [Ca, J, NZ, CT, Au, K]</p> <p>These instruments can be used for chemical, thermal, or optical analysis of samples, including water quality photometers which are used to determine the concentration of a solution from its colour intensity. Exposure meters are used, inter alia, to control light sources and for measurements in agriculture, horticulture, and other natural resources applications. [US]</p> <p>These instruments are used to measure, record, analyse and assess environmental samples or environmental influences. [Ch]</p>

					DNA Sequencers, Polymerase Chain Reaction (PCR) Systems.
902780	902780	902780	<p>Instruments and apparatus for physical or chemical analysis not elsewhere specified in 90.27. [Ca, J, NZ, CT, K]</p> <p>Instruments and apparatus for physical and chemical analysis, nesoi. [US, Au]</p> <p>Other Mass Spectrograph (90278019); PM10 automatic sampler and measuring apparatus; Automatic ammonia online monitor; Automatic TOD online monitor; Automatic BOD online monitor; Noise spectrum analyzer; Environmental noise monitor (ex-90278099) [Ch]</p>	Optional ex-out may include: For analysing noise, air, water and hydrocarbons and heavy metals in soil. [Ca, J, NZ, CT, Au, K]	<p>These instruments include: magnetic resonance instruments which are used in biologic and geologic analysis; and mass spectrometers which are used to identify elements and compounds.</p> <p>These instruments are used to measure, record, analyse and assess environmental samples or environmental influences. [Ch]</p>
902790	902790	902790	<p>Microtomes; parts and accessories of instruments and appliances of 9027. [Ca, J, NZ, K, CT, Au, S]</p> <p>Microtomes; parts and accessories for instruments and apparatus for physical or chemical analysis . [US]</p> <p>Instruments and apparatus for physical or chemical analysis (for example, polarimeters, refractometers, spectrometers, gas or smoke analysis apparatus); instruments and apparatus for measuring or checking viscosity, porosity, expansion, surface tension or the like; instruments and apparatus for measuring or checking quantities of heat, sound or light (including exposure meters); microtomes: microtomes; parts and accessories [V]</p> <p>Microtomes; Parts &amp; Access Of Instruments / Applia (90279000) [Ch]</p>	Optional ex-outs may include: Parts for 902710 and 902780x. [Ca, J, NZ, K, CT, Au]	<p>These instruments include microtomes which are devices that prepare slices of samples for analysis. Also included here are parts of the instruments classified in 9027 and described above.</p> <p>For use with Thermal Cyclers, DNA Sequencers, Polymerase Chain Reaction (PCR) Systems, etc. Thermal Cyclers, Serving multiple environmental purposes, for example: Environmental Monitoring - fast, cost-effective standard for pathogen detection from a broad range of sample types including water, soil, and food; detects pathogen contaminations of both food and environmental surface samples to minimize risks of food borne pathogens to public health; fundamental equipment for surveillance programs monitoring pathogens or viruses that can pose a significant risk to both human and animal health, including both naturally occurring viruses such as strains of influenza or organisms that have potential to be used in bio-terrorism activities, such as anthrax [S]</p> <p>These instruments are used to measure, record, analyse and assess environmental samples or environmental influences. [Ch]</p>
903149		903149	<p>Other measuring and checking instruments, appliances and machines, not specified or included elsewhere in this chapter: ..Other optical instruments, appliances and machines elsewhere specified for measuring or checking. [Ca, J, NZ, K, CT]</p> <p>Measuring or checking instruments, appliances and machines, nesoi. [US] Other optical instruments and appliances: Other [Au]</p> <p>Optical Grating Measuring Device (90314920); Other Optical Instruments &amp; Appliances (90314990) [Ch]</p>	Optional ex-outs include: Profile projectors; Vibrometers; Hand vibration meters. [US]	<p>Equipment used in the measurement, recording, analysis and assessment of environmental samples or environmental impact. [Ca, J, NZ, K, CT, Au]</p> <p>Profile projectors are used for critical tasks in engineering such as measuring and inspecting high precision, complex parts in many applications and industries. Equipment used in the measurement, recording, analysis and assessment of environmental samples or environmental impact. These products inc+F127lude inter alia, items such as vibrometers (that measure vibrations and assess structural and other effects of such vibrations) [US]</p> <p>These instruments are used to measure, record, analyse and assess environmental samples or environmental influences. [Ch]</p>
903180	903180	903180	<p>Other instruments, appliances and machines.</p> <p>Other instruments, appliances and machines, not elsewhere specified in heading 90.31 [Th]</p>	<p>Optional ex-out may include: Vibrometers, hand vibration meters. [Ca, J, NZ, K, CT, Au]</p> <p>Instruments for measuring oxygen in oxygen censer operating with catalytic convertor</p>	<p>These products include <i>inter alia</i>, items such as vibrometers (that measure vibrations and assess structural and other effects of such vibrations) and electron microscopes for laboratory and testing applications. [Ca, J, NZ, K, CT, Au]</p>

				[Th]	Air Pollution Control [Th]
903190	903190	903190	<p>Parts and accessories [M] of the instruments and appliances and machines of 9031. [Ca, J, NZ, K, CT, Au]</p> <p>Parts and accessories for measuring or checking instruments, appliances and machines, nesoi; parts and accessories for profile projectors. [US]</p> <p>Other measuring and checking instruments, appliances and machines, not specified or included elsewhere in this chapter; profile projectors: Parts and accessories [V]</p> <p>Parts &amp; Accessories Of Instruments / Appl / Machin (90319000) [Ch]</p>	Optional ex-out may include: Parts for 903180x. [Ca, J, NZ, US, K, CT, Au]	<p>These are parts for the equipment classified in 9031 and described above. [Ca, J, NZ, K, CT, Au]</p> <p>Parts for 903110, 903120, 903149x. [US]</p> <p>These instruments are used to measure, record, analyse and assess environmental samples or environmental influences. [Ch]</p>
903289	903289	903289	<p>Automatic regulating or controlling instruments, other. [Ca, J, NZ, K, Au, Ru, BD]</p> <p>Automatic regulating or controlling instruments and apparatus (excluding thermostats, manostats and hydraulic types), nesoi. [US]</p> <p>Other: Electrically or electronically operated and other [M]</p>	<p>Optional ex-outs may include: Heliostats, temperature sensor for solar boiler/water heater; Differential temperature controller for solar boiler/water heater. [Ca, J, NZ, K, Au]</p> <p>Light sensor; Sensor (elevators, escalators, etc.) [BD]</p>	<p>These include other automatic voltage and current regulators which have renewable energy applications as well as other process control instruments and apparatus for temperature, pressure, flow and level, and humidity applications. [Ca, J, NZ, K, Au]</p> <p>Includes other automatic voltage and current regulators which have renewable energy and smart grid applications, process control instruments and apparatus for temperature, pressure, flow and level, and regulators for humidity applications that help increase energy efficiency. [US, BD]</p>
903290	903290	903290	<p>Parts and accessories [M] for nominated articles of subheading 9032. [Ca, J, NZ, K, CT]</p> <p>Parts and accessories of automatic regulating or controlling instruments and apparatus. [US, Au, Ru]</p>		<p>These are the parts for the automatic regulating and control instruments classified in 9032 and described. [Ca, J, NZ, K, CT, Au]</p> <p>Parts for aforementioned goods of headings 9032. [US]</p>
903300	903300	903300	<p>Parts and accessories (not specified or included elsewhere in this Chapter) for machines, appliances, instruments or apparatus of Chapter 90. [Ca, j, NZ, US, CT, Au, Ru, Th, S] For subheading 902140 and 902150 and other [M]</p>	Parts of the CH 90 products above, not elsewhere specified. [US]	<p>These are the parts and accessories for the products described above. [Ca, J, NZ, CT, Au, M]</p> <p>Parts of the CH 90 products above, not elsewhere specified [US]</p> <p>Parts used in maintenance and repair of the liquid, electricity, radiation and measurement instruments listed above with the attendant environmental benefits. [S]</p>