Generic Taxonomy

Level 1	Level 2	Level 3
Alternative	СНР	Biomass CHP
Energy		Fossil fuel CHP
		Other
	Renewable energy	Biomass boiler
	sources	Biogas boiler
		Building integrated wind power
		(0-50kW)
		Heat pump
		Industrial scale wind power
		(>50kW)
		PV
		Small hydropower
		Solar thermal
		Biomass furnace
		Other
	Energy from waste	Anaerobic digestion
		Incineration
		Energy from flue gas expansion
		By-product fuel

Level 1	Level 2	Level 3
Service	Air conditioning and	Chillers
Technology	cooling	Exhaust air scrubber
		Condensers
		Controls
		Free cooling
		Heat recovery
		Insulation
		Other
	Medium transport	gas distribution system
		Suction plant
		Extruder
		liquid distribution system
		conveyors
		Sewage Treatment
		Water treatment
		Pumps
		Water treatment
		others
	Building fabric	Air tightness
		Daylighting
		Glazing
		new building
		Insulation
		Natural ventilation
		Thermal mass
		Shading
		Structure
		Other

Level 1	Level 2	Level 3
Service	Building	BMS hardware
Technology	instrumentation and control	BMS operating system
		Local Control
		Other
	Building services	DHWS Calorifers
	distribution systems	Hot water - point of use heater
		Heat exchangers
		Pipe insulation
		Electrical supply
		Pumps and circulators - hot or
		chilled water
		Other
	Lighting	Control System
		indoor lighting (luminaries and
		lamps)
		outdoor lighting (Street lighting -
		luminaries and lamp)
		Other
	Building Heating	Boilers
		Controls
		Low temperature systems
		Heat recovery
		Heating system
		Radiators
		Vessels and tank insulation
		District heating
		Other
	Ventilation	Controls
		Ventilation system
		Diffusers
		Distribution system ducting
		Fans
		Humidification
		Other

Level 1	Level 2	Level 3
Service	Management	Metering and monitoring
Technology		User behaviour
		Other
	Compressed air	Air compressors
		System optimization
		Extruder
		Air inlet
		Compressed air receiver
		Controls
		Distribution systems
		Heat recovery
		Leakage management
		Treatment systems
		Nitrogen compressors
	Motors and drives	High efficiency motors
		Transmission systems
		Variable Speed Drives
	Process design and	Process design and optimisation
	optimisation	Other
	Combustion	controls optimization
		Boiler
		Economizer
		air pre-heater
		Extraction of waste heat
		Hardware controls
		Insulation
		Heat exchangers
		Oxy-combustion system
		Burner
		Furnace

Level 1	Level 2	Level 3
Service	Heat recovery and	Condensers (dry)
Technology	cooling	Condensers (wet)
		Condenser (evaporation)
		Heat recovery by heat exchanger
		Heat pump
		cascading usage
		free cooling
		Heat recovery by ORC cycle
		turbogenerator
		Heat recovery by steam
		turbogenerator
		Cooling tower
		Chillers
		Geometry improvement
	Steam System	Throttling devices
		pre-heating feedwater
		operating and control
		Steam calorifier
		Steam condensation recovery
		system
		Steam pipework
		Steam traps and strainers
		Insulation
		Inlet water purification
	Process	Process instrumentation and
	instrumentation and	control systems
	control systems	other
	Energy Recovery	Pressure Difference

Level 1	Level 2	Level 3
Service	Refrigeration	Absorption systems
Technology		Adsorption plant
		Ammonia plant
		Refrigeration plant
		Water recovery
		Compressors
		Condensers
		Controls
		refrigerant
		Distribution systems
		Evaporators
		Insulation
		Chiller
		other
	Process water	High efficiency pump
	Electricity	Improvement of electrical
	distribution	distribution efficiency
	size reduction	Grinding and crushing
	processes	Cutting
	Finishing Process	Packing
	Service Hydrogen	Steam reforming for H2
	production	production
	Renewable energy	Biomass boiler
	sources	Biogas boiler
		Heat pump
		Biomass furnace
		Other

Level 1	Level 2	Level 3
Process	Drying, seperation	Distillation
Technology	and concentration	Filtration
		Reverse osmosis
		Drying and evaporation
		Other
	Medium transport	Suction plant
		Extruder
		conveyors
		Pumps
		Ventilators
		others
	Motors and drives	High efficiency motors
		Transmission systems
		Variable Speed Drives
	Process design and	Process design and optimisation
	optimisation	Other
	Combustion	controls optimization
		Boiler
		Economizer
		air pre-heater
		Extraction of waste heat
		Hardware controls
		Insulation
		Heat exchangers
		Oxy-combustion system
		Burner
		Furnace

Level 1	Level 2	Level 3
Process	Heat recovery and	Condensers (dry)
Technology	cooling	Condensers (wet)
		Condenser (evaporation)
		Heat recovery by heat exchanger
		Heat pump
		cascading usage
		free cooling
		Heat recovery by ORC cycle
		turbogenerator
		Heat recovery by steam
		turbogenerator
		Cooling tower
		Chillers
		Geometry improvement
	Steam System	Throttling devices
		pre-heating feedwater
		operating and control
		Steam calorifier
		Steam condensation recovery
		system
		Steam pipework
		Steam traps and strainers
		Insulation
		Inlet water purification
	Process	Process instrumentation and
	instrumentation and	control systems
	control systems	other
	Energy Recovery	Pressure Difference
	Process water	High efficiency pump

Level 1	Level 2	Level 3
Process	Refrigeration	Absorption systems
Technology		Adsorption plant
		Ammonia plant
		Refrigeration plant
		Water recovery
		Compressors
		Condensers
		Controls
		refrigerant
		Distribution systems
		Evaporators
		Insulation
		Chiller
		other
	size reduction	Grinding and crushing
	processes	Cutting
	Finishing Process	Packing
	Compressed air	Air compressors
	·	System optimization
		Extruder
		Air inlet
		Compressed air receiver
		Controls
		Distribution systems
		Heat recovery
		Leakage management
		Treatment systems
		Nitrogen compressors
	Renewable energy	Biomass boiler
	sources	Biogas boiler
		Heat pump
		Biomass furnace
		Other