

Level 1	Level 2	Level 3
gxA	Energy Supply	
	01	Solar Photovoltaic Power Generation
		a Solar Photovoltaic Power Generation
	02	Solar Thermal Energy Utilization
		a Solar Thermal Power Generation
		b Solar Thermal Collectors, Solar Thermal Systems
	03	Wind Power Generation
		a Wind Power Generation
	04	Geothermal Utilization
		a Geothermal Power Generation
		b Geothermal Collectors, Geothermal Systems
	05	Hydro-Power Generation
		a Hydro-Power Generation
	06	Ocean Energy Power Generation
		a Wave Power Generation, Tidal Power Generation
		b Ocean Thermal Energy Conversion, Ocean Salinity Gradient Power Generation
	07	Biomass
		a Solid Biofuels
		b Liquid Biofuels
		c Biogas
	08	Nuclear Power Generation
		a Fusion Reactors, Nuclear Reactors, Nuclear Power Plant
	09	Fuel Cells
		a Fuel Cells, Fuel Cell Systems (Stationary, Mobility)
	10	Hydrogen Technology
		a Hydrogen Production
		b Hydrogen Storage, Transportation, Supply, Hydrogen Stations
		c Use of Hydrogen in Combustion (Hydrogen Engine Vehicles, etc.)
	11	Ammonia Technology
		a Ammonia Production
		b Ammonia Storage, Transportation
		c Use of Ammonia in Combustion
gxB	Energy Saving, Electrification, Demand-Supply Flexibility	
	01	Energy Saving in Buildings (ZEB, ZEH, etc.)
		a Building Insulation
		b High-Efficiency Air Conditioner
		c High-Efficiency Water Heaters
		d High-Efficiency Lighting (LEDs, OLEDs)
	02	High-Efficiency Motors and Inverters
		a High-Efficiency Motors and Inverters
	03	Combined Heat and Power (CHP)
		a Combined Heat and Power (CHP)
	04	Energy Saving and Supply/Demand Flexibility in Treatment of Water, Wastewater, Sewage, and Sludge
		a Energy Saving and Supply/Demand Flexibility in Treatment of Water, Wastewater, Sewage, and Sludge
	05	Electromobilities
		a Electric Vehicles, Hybrid Vehicles
		b Others (Aircraft, Ships, etc.)
	06	Electrification of Industrial Heat
		a Resistance Heating, Infrared Heating
		b Induction Heating
		c Electromagnetic Heating (Microwave Heating, Dielectric Heating)
		d Electric Discharge Heating
	07	Power Transmission and Distribution, Smart Grids
		a Direct Current Transmission and Distribution (HVDC, etc.)
		b Smart Grids
	08	Demand-Supply Flexibility of Power Systems
		a VPP, Negawatt, Resource Aggregation
gxC	Batteries, Energy Storage	
	01	Secondary Batteries
		a Secondary Batteries
		b Module-Related Technology for Secondary Batteries
	02	Mechanical Energy Storage
		a Pumped Storage Power Generation, Flywheels, Compressed Air Energy Storage
	03	Thermal Energy Storage
		a Thermal Storage Devices, Thermal Storage Materials (Including Carnot Batteries)
	04	Electric Double Layer Capacitors, Hybrid Capacitors
		a Electric Double Layer Capacitors, Hybrid Capacitors
gxD	CO2 Reduction in Non-Energy Sector	
	01	Chemical Production from Biomass
		a Biomass Plastic
		b Cellulose Nanofibers
		c Production of Chemicals from Biomass
	02	Reduction of CO2 Emission in Steelmaking Process

gxE		a	Hydrogen Reduction Steelmaking	
		b	Direct Reduced Iron (DRI)	
		c	Highly Reactive Coke	
		d	Electrolytic Reduction Method	
	03	Recycling		
		a	Plastic Recycling	
		b	Iron Recycling	
		c	Aluminum Recycling	
	01	CCS, CCUS, Negative Emission		
		a	CO2 Separation by Absorption	
		b	CO2 Separation by Adsorption	
		c	CO2 Separation by Membranes	
		d	DAC (Direct Air Capture)	
e		Oxyfuel Combustion, Chemical Looping		
f		Underground Storage of CO2, Effective Use of Underground CO2 Injection		
g		CO2 Fixation as Carbonates (Concrete, etc. and Blast Furnace Slag)		
h		CO2 Absorption and Fixation by Organisms (Forest, Agricultural Soil Carbon, Urban Greening, Marine Biological Systems)		
i		CO2 Conversion into Hydrocarbons and Derivatives by Reduction (Methanation, Electrosynthesis, Carboxylation, Artificial Photosynthesis, etc.)		
j		CO2 Conversion by Non-Reductive Methods		
k		CO2 Transportation		
02		Measures Against Non-CO2 Greenhouse Gases		
	a	Recovery, Decomposition and Detoxification of Chlorofluorocarbon Gas		
	b	Green Refrigerants (Low GWP Refrigerant)		
		c	Reduction of Non-CO2 Greenhouse Gases from Livestock and Agricultural Land	

gxY	Cross-Tabulation (× Control, × Measuring, × Business, × ICT)		
	01	Control-Related Technology	
		a	gxA × gxY01
		b	gxB × gxY01
		c	gxC × gxY01
		d	gxD × gxY01
	02	Measuring-Related Technology	
		a	gxA × gxY02
		b	gxB × gxY02
		c	gxC × gxY02
		d	gxD × gxY02
	03	Business-Related Technology (Including Authentication and Payment)	
		a	gxA × gxY03
		b	gxB × gxY03
		c	gxC × gxY03
		d	gxD × gxY03
	04	ICT-Related Technology (Excluding Business-Related Technology)	
		a	gxA × gxY04
		b	gxB × gxY04
		c	gxC × gxY04
d		gxD × gxY04	
		e	gxE × gxY04