

## List of Examples of Eligible Projects

Theme	Category	Sub-category	Specific technologies	
Climate change mitigation	Energy supply (Electricity)	Fossil fuel power generation	Abated fossil fuel power generation	
			Hydrogen co-firing power generation	
			Ammonia co-firing power generation	
			Biomass co-firing power generation	
		Renewable energy power generation	Solar power generation, including perovskite solar cells and solar thermal power	
			Wind power generation	
			Hydropower generation, including pumped-storage hydropower	
			Geothermal power generation	
			Ocean energy power generation, such as Ocean Thermal Energy Conversion (OTEC), wave power, and tidal power	
			Biomass power generation	
		Nuclear power generation		
		Nuclear fusion power generation		
		Low-carbon alternative fuel power generation	100% hydrogen-fueled combustion power generation	
			100% ammonia-fueled combustion power generation	
			Fuel cells	
		Waste power generation		
		Cogeneration systems		
		Distributed energy resources	Microgrid, such as Virtual Power Plant (VPP) and Vehicle to Home (V2H)	
		Power transmission and distribution	Grid stabilization equipment and services, and high-performance grid connection equipment	
			High-efficiency transmission lines, such as high-voltage transmission, high-voltage direct current transmission, and superconducting transmission	
			Integrated monitoring and control systems, such as Supervisory Control and Data Acquisition (SCADA)	
			Wide-area supervisory and control systems, such	

			as Wide Area Situational Awareness (WASA)
			Smart grid technologies, such as Advanced Metering Infrastructure (AMI) and demand response programs
			Transformers, such as low-loss distribution transformers and amorphous transformers
			Storage batteries, such as Sodium-Sulfur (NAS), redox flow, high-efficiency lithium-ion, nickel-metal hydride, and lead-acid batteries
			Power electronics
Energy supply (Fuel and heat)	Renewable energy heat utilization		Solar heat, geothermal heat, biomass heat, etc.
	Biofuel production		Bioethanol, biomethanol, biodiesel, biogas/biomethane, wood-based fuels, etc.
	Hydrogen-based fuel production		Low-carbon hydrogen
			Low-carbon ammonia
			Methylcyclohexane (MCH)
			Methanol
			Hydrogen storage alloy
			Production, transportation, supply, and utilization of low-carbon hydrogen and its derivatives
			Synthetic methane (e-methane)
			Synthetic fuel (e-fuel)
Steel	Low-carbon technologies		Blast furnace hydrogen reduction, such as COURSE50 and Super COURSE50 initiatives
			Direct hydrogen reduction
			High-efficiency arc furnaces
			Electric furnace (electrification, scale-up, etc.)
	Energy-saving technologies		Pulverized Coal Injection (PCI)
			Next-generation coke ovens, such as SCOPE21
			Ferro-coke
			High-efficiency sintering furnace ignition burners
			Direct Reduced Iron (DRI)
	Resource-saving technologies		Dust recycling
			Scrap utilization
		Chemical recycling	

			Utilization of blast furnace slag	
	Efficient use of exhaust heat and gas		Coke Dry Quenching (CDQ) System	
			Energy-efficient Coal Moisture Control (CMC) System	
			Blast Furnace Top Pressure Recovery Turbines (TRT)	
			Introduction of regenerative burners	
			Recovery and utilization of exhaust heat and by-product gases (from converter, sintering furnace, hot blast stove, electric furnace, etc.)	
Cement	Low-carbon technologies		Carbon-recycled cement	
			Recycled concrete	
			High-efficiency separators	
			Introduction of vertical roller mills	
			Verticalization of blast furnace slag mills	
	Energy-saving technologies		Fluidized bed kiln	
	Resource-saving technologies		Utilization of Alternative Fuels and Raw Materials (AFR)	
			Utilization of concrete fines and other materials as clinker raw materials	
	Efficient use of exhaust heat and gas		Cement plant exhaust heat recovery power generation	
			High-efficiency clinker coolers	
			Improvement of thermal efficiency using Suspension Preheater (SP)	
			Improvement of calcination efficiency using New Suspension Preheater (NSP)	
	Chemicals	Low-carbon technologies		Artificial photosynthesis
				Carbon recycling
			Biorefinery	
			Ion-exchange membrane electrolyzers	
Energy-saving technologies			High-efficiency propylene separators	
Efficient use of exhaust heat and gas			Power recovery systems for fluid catalytic cracking units	
Non-ferrous metals and	Energy-saving technologies		High-efficiency melting and holding furnace and pre-combustion system	

	aluminum	Efficient use of exhaust heat and gas	Exhaust heat recovery from the conversion process and the regenerative burner
	Pulp and paper	Low-carbon technologies	High-efficiency washing system, low-pressure cleaner
		Energy-saving technologies	High-efficiency drying system, etc.
		Resource-saving technologies	High-efficiency recycled paper pulp production technology
			Utilization of paper sludge and other materials as fuel
			Separation and fuel conversion of lignin
			Gasification and fuel conversion of black liquor
		Efficient use of exhaust heat and gas	High-temperature, high-pressure black liquor recovery boilers
	Transport (Automotive)	Low-carbon technologies	Low-carbon vehicles, such as EVs and FCVs
			Infrastructure for low-carbon vehicles, such as charging stations, hydrogen stations, in-motion charging, and battery swapping
			Performance improvement of batteries and motors for EVs
		Energy-saving technologies	Hybrid vehicles, such as HVs and PHVs
		Utilization of digital technologies	High-Efficiency and Advanced Transportation Systems, Such As Intelligent Transport Systems (ITS), Vehicle Information and Communication System (VICS), and Electronic Toll Collection (ETC)
	Transport (Railway)	Low-carbon technologies	Low-carbon vehicles, such as renewable energy-powered vehicles, hydrogen vehicles, and next-generation biodiesel vehicles
			Automated Guideway Transit (AGT), Light Rail Transit (LRT), High-Speed Superconducting Transit (HSST), and Monorails
		Energy-saving technologies	Hybrid locomotives
	Transport (Shipping)	Low-carbon technologies	Electric ships
			Zero-emission ships

		Energy-saving technologies	Energy-efficient ships
Transport (Aviation)	Low-carbon technologies		Sustainable Aviation Fuel (SAF)
			Hydrogen-powered aircraft
			Electric aircraft
	Energy-saving technologies	Hybrid aircraft	
			Fuel efficiency improvement through the use of carbon fiber composites, etc.
Transport (Logistics and cargo)	Utilization of digital technologies		Smart logistics systems, such as automated warehouses, automated and mechanized cargo handling technologies
Transport	Modal shift to low-carbon transport modes		Shift to low-carbon transport modes, such as electric-powered vehicles and systems
	Modal shift to energy-efficient transport modes		Shift to energy-efficient transport modes
Construction (Residential and commercial buildings)	Low-carbon technologies		Net Zero Energy Building (ZEB), Net Zero Energy House (ZEH), and Life Cycle Carbon Minus (LCCM) House
			High-performance insulation window glass such as low-E glass
			High-performance insulation materials and heat-shielding window film
	Utilization of digital technologies		Home Energy Management System (HEMS), Building Energy Management System (BEMS), Factory Energy Management System (FEMS), Community Energy Management System (CEMS), etc.
	Air conditioning (heating and cooling) and refrigeration equipment		Heat pump
			District heating and cooling systems, etc.
Zero emissions and negative emissions	Carbon Capture, Utilization and Storage (CCUS)		Carbon Capture (CC), Carbon Capture and Storage (CCS), Carbon Capture, Utilization (CCU), Carbon Capture, Utilization and Storage (CCUS)

		Carbon removal and sequestration	Bioenergy with Carbon Capture and Storage (BECCS)
			Direct Air Capture (DAC) and Direct Air Carbon Capture and Storage (DACCS)
			Afforestation, reforestation, and forest conservation
			Soil carbon sequestration
			Biochar production and utilization
	Cross-sector initiatives	Low-carbon technologies	Transition to electrification, low-carbon alternative fuels, and low-carbon materials
			Improvement of energy efficiency of electricity-consuming equipment and systems, including high-efficiency air conditioning systems, energy-saving lighting such as LED and OLED, and top-runner appliances
		Energy-saving technologies	Improvement of energy efficiency of fossil fuel-based equipment and systems
		Resource-saving technologies	3R (Reduce, Reuse, Recycle) technologies for recycling and resource efficiency
		Efficient use of exhaust heat and gas	Waste heat recovery technologies, waste heat power generation systems, and regenerative burners, etc
		Utilization of digital technologies	Energy efficiency, resource efficiency, and environmental impact reduction through the utilization of information and communication technologies, remote control technologies (IT, ICT, IoT), artificial intelligence (AI), etc.
	Mitigation measures for greenhouse gases other than carbon dioxide	Methane reduction	Emission reduction and recovery of coalbed methane and associated petroleum gas
			Reduction of flare emissions
			Recovery and combustion of methane from organic waste fermentation and landfill gas
			Mitigation and recovery of methane emissions from livestock farming and land-use change
Fluorinated gas reduction		Treatment and emission reduction of fluorocarbons and their alternatives, along with prevention and utilization of sulfur hexafluoride (SF6)	
Nitrous oxide	Decomposition and emission reduction of nitrous		

		reduction	oxide (N <sub>2</sub> O)
Environmental conservation beyond climate change mitigation	Air pollution prevention		Exhaust gas treatment measures, including desulfurization and denitrification systems, particulate matter removal equipment, and flue gas purification technologies
	Water pollution prevention		Wastewater treatment
	Water supply		Domestic and industrial water supply
			Seawater desalination treatment
	Soil contamination prevention		Removal and neutralization of contaminated soil and groundwater
	Waste treatment		Waste treatment
	Conservation of biodiversity and ecosystems		Projects contributing to the conservation of biodiversity and ecosystems, including the protection of water areas, forests, and soil
		Measures against marine plastic pollution, including the production of biodegradable plastics and polymers	

Note: The list is subject to change as needed to support projects implemented by companies with decarbonization policies, such as declarations to achieve carbon neutrality by 2050 or similar initiatives, that are in line with those policies.