Glossary

Term	Definition
Air conditioning (AC)	Systems that provide comfortable indoor air conditions (typically 22 to 27 °C).
Carbon Dioxide Equivalent (CO_2eq)	Unit to measure the climate effects of chemicals like refrigerants compared to a similar mass of carbon dioxide (CO_2).
Central chillers	Industrial equipment units used to provide cooling for higher cooling capacity requirements.
Central systems	A central unit serves different units. E.g., AC systems and district cooling such as water/air-to-water compression chillers (including district cooling), sorption chillers (including district cooling), rooftop units, VRF-/multisplit systems. Refrigeration systems such as central refrigeration systems (direct and indirect), condensing units (serving up to 3 units).
Combined cooling, heat and power (CCHP)	While combined heat and power (CHP) usually produces electricity and heat, CCHP can also use the heat generated to produce cooling.
Commercial refrigeration	Commercial refrigeration systems differ from the home refrigerators known to everyone in size, technology, and setup. They are typically more powerful than residential units and may have the compressors and condensers in a different location than the refrigerated case.
Decentral systems	Each unit contains its own compressor. E.g., AC systems such as split AC, wall/window AC units, movable AC units. Refrigeration systems such as standalone refrigerators, standalone freezers.
Direct emissions	Emissions created by use of fluorinated (and chlorinated) refrigerants that often occur and are caused by leakage, careless (re)charging and disposal or accidents.
District cooling	Delivery of chilled water on a broad scale to buildings like offices and factories that require cooling.
DX chillers	Direct expansion chillers use refrigerant circulating within a building.
Energy efficiency (EE)	Ratio between delivered (cooling) energy and primary energy need
Energy efficiency index (EEI)	Ratio used to determine the efficiency levels of different equipment.
Energy efficiency ratio (EER)	Ratio of output of a cooling capacity (in BTU) to electricity consumption (in watts) at a given operating point.
F-gas	Environmentally harmful refrigerant containing flour (HCFC, HFC or HFO).
Global warming potential (GWP)	The amount of heat absorbed by a greenhouse gas in the atmosphere, indicated as a multiple of the heat that would be absorbed by the same mass of carbon dioxide.
Hydrocarbons (HC)	Hydrocarbon refrigerants (natural refrigerant).
Hydrochlorofluorocarbons (HCFC)	Hydrochlorofluorocarbon refrigerants (ozone depleting substances).

Hydrofluorocarbons (HFC)	Hydrofluorocarbon refrigerants (gases with high GWP).
Hydroflouro-Olefines (HFO)	Hydroflouro-Olefines refrigerants.
HVAC	Heating, ventilation, and air conditioning.
Indirect evaporative cooling (IEC)	Technology that makes use of the cooling effect of water evaporation indirectly via a heat exchanger.
IEEP	Industrial energy efficiency project.
Indirect emissions	Emissions created from conventional (fossil based) power generation to supply cooling appliances with electricity.
Natural refrigerants	Natural refrigerants are non-synthetic substances that occur in nature's biochemical process in contrast to the 'synthetic' fluorinated refrigerants which are man-made chemicals. Furthermore, natural refrigerants have only a negligible climate effect, if any.
Ozone depleting potential (ODP)	Measure of the amount of damage that substances impart on the ozone layer compared to a similar mass of CFC-11 (Trichlorofluoromethane).
Ozone depleting substances (ODS)	Manmade substances that destroy the earth's protective layer.
Public private partnerships (PPP)	Arrangement between a government and private sector institutions for financing governmental projects.
Process cooling	Systems to provide cooling at various temperature levels for different industrial processes.
RAC	Refrigeration and air conditioning sector.
Refrigeration	Systems to store food or drinks at low temperatures (typically -18°C for freezers and 7°C for refrigeration.
Renewable energy (RE) supply	A renewable energy supply can be achieved either by onsite or off-site renewable energy sources. The supply can serve AC and commercial refrigeration but usually also other consumers on site.
Single split units	AC units with an external condenser unit and one internal evaporator units.
Sustainable cooling	Sustainable cooling aims for zero-carbon emissions with the following criteria:1) No use of fluorinated refrigerants (possible solutions: use of natural refrigerants or considering so called "not in-kind technologies" without refrigerants); 2) High energy efficiency; and 3) Supplied by renewable energies.
Passive cooling	Improvement of indoor thermal comfort through building design approaches that focus on heat gain and dissipation so that little to no energy is required.
PV, solar thermal and/or storages	Photovoltaics and solar thermal use energy directly from the sun to produce electricity and/or heat. This electricity can be used directly or stored, e.g., in a battery.
Variable refrigerant flow (VRF)	An AC system that varies the rate of flow of the refrigerant. The two most common types of VRF are heat pumps and heat recovery.