

VIII. Glossary

Abatement: Reducing the degree or intensity of greenhouse-gas emissions.

Adaptive Capacity: The capability of people, systems, and assets to cope with a climate hazard.

Battery-Powered Electric Vehicle (BEV): A vehicle that gets all its power from batteries and electric motors. It contains no internal combustion engine (ICE). The electric motor uses batteries that are recharged by plugging in to an electric power source (a wall socket or EV charger).

Baseline: Climate conditions or greenhouse gas (GHG) emissions snapshot with which to begin tracking adaptation or reduction progress.

Carbon Dioxide Equivalent: A unit of measure used to compare the emissions from various greenhouse gases based upon their global warming potential (GWP). Carbon dioxide equivalents are commonly expressed as "million metric tons of carbon dioxide equivalents (MMTCO₂Eq)." The carbon dioxide equivalent for a gas is derived by multiplying the tons of the gas by the associated GWP.

Carbon-free: Sources of energy that do not emit greenhouse gases, including wind, solar, and nuclear; used interchangeably with the term "decarbonized" in reference to energy types.

Carbon Sequestration: The process of removing carbon from the atmosphere and depositing it in a reservoir.

Clean Energy: Energy from renewable, non-carbon-emitting sources; this excludes nuclear and biomass generation.

Climate: In a narrow sense, climate is usually defined as the "average weather," or more rigorously, as the statistical description in terms of the mean and variability of relevant quantities over a period of time ranging from months to thousands of years. The classical period is 3 decades, as defined by the World Meteorological Organization (WMO). These quantities are most often surface variables such as temperature, precipitation, and wind. Climate in a wider sense is the state, including a statistical description, of the climate system.

Climate Change: Climate change refers to any significant change in the measures of climate lasting for an extended period of time. Climate change includes major changes in temperature, precipitation, or wind patterns, among others, that occur over several decades or longer.

Co-Benefits: A term used to describe the multiple benefits of actions in the Climate Action Plan. For example, several resilience strategies have a co-benefit of also reducing greenhouse gases or vice versa. This term can also be used to describe the additional economic and public health benefits of an action.

Electric Vehicle (EV): A substitute for gas-powered vehicles that run on motors powered by electricity. Electric vehicles do not release tailpipe emissions but can contribute to greenhouse gas emissions if the electricity they use does not come from carbon neutral sources.

Emissions: The release of a substance (usually a gas with global warming potential when referring to the subject of climate change) into the atmosphere.

Energy Burden: The percentage of household income that goes toward utility bills.

Energy Use Intensity (EUI): The measurement of the energy used per square foot per year. It is calculated by dividing the total energy consumed by the building in one year (measured in thousand Btu, kBtu) by the floor area of the building.

Environmental Racism: The disproportionate impact of environmental hazards such as air pollution on people of color and "energy burden" - percentage of household income that goes toward utility bills.

Environmental Stewardship: Increased creation, preservation, or restoration of natural environments.

Extreme Weather: Occurrences of unusually severe weather event or climate conditions including, for example, heat waves, cold snaps, heavy rains, periods of drought and flooding, and severe storms.

Fossil Fuels: A general term for fuels derived from organic materials formed from decayed plants and animals that have been converted to crude oil, coal, natural gas, or heavy oils by exposure to heat and pressure in the earth's crust over hundreds of millions of years.

Fugitive emissions: Greenhouse-gas emissions as by-products or waste or loss in the process of fuel production, storage, or transport, such as methane given off during oil and gas drilling and refining, or leakage of natural gas from pipelines.

Greenhouse Gases: The atmospheric gases responsible for causing global warming and climate change. The major GHGs are carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O). Less prevalent -- but very powerful -- greenhouse gases are hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF₆).

Heat Island: The tendency for higher air temperatures to persist in urban areas as a result of heat absorbed and emitted by buildings and asphalt, tending to make cities warmer than the surrounding rural areas.

Heat Stress: The negative health impacts, such as heat stroke or heat exhaustion, caused by exposure to extreme heat or long periods in hot environments.

Hybrid Electric Vehicle (HEV): A type of hybrid vehicle and electric vehicle that combines a conventional internal combustion engine (ICE) propulsion system with an electric propulsion system (hybrid vehicle drivetrain).

International Council of Local Environmental Initiatives (ICLEI): An international non-government organization that promotes sustainable development and provides technical consulting to local governments to meet sustainability objectives.

Intergovernmental Panel on Climate Change (IPCC): Established in 1988 by the World Meteorological Organization and the UN Environment Programme, the IPCC surveys world-wide scientific and technical literature and publishes assessment reports that are widely recognized as the most credible existing sources of information on climate change.

Metric Ton: Common international measurement for the quantity of greenhouse gas emissions. A metric ton is equal to 2205 lbs. or 1.1 short tons.

Micro-mobility: Transportation by lightweight, low-speed vehicles such as scooters or bicycles, either mechanical or electric.

Mitigation: In the context of climate change, a human intervention to reduce the sources or enhance the sinks of greenhouse gases. Examples include using fossil fuels more efficiently for industrial processes or electricity generation, switching to solar energy or wind power, improving the insulation of buildings, and expanding forests and other "sinks" to remove greater amounts of carbon dioxide from the atmosphere.

Net Zero: A target of completely negating the amount of greenhouse gases produced by human activity, to be achieved by reducing emissions and implementing methods of absorbing carbon dioxide from the atmosphere.

Non-Native Invasive Species (NNI): A non-native organism whose introduction within a particular ecosystem causes or is likely to cause economic or environmental harm, or harm to human, animal, or plant health.

Plug-In Hybrid Electric Vehicle (PHEV) or Plug-In Hybrid: Uses an electric motor and gas engine to operate. Its electric motor uses batteries that are recharged by plugging in to an electric power source (a wall socket or EV charger). The gas-powered motor can work together with the electric motor, or separately on its own, to power the powertrain.

Preparedness: Actions taken to build, apply, and sustain the capabilities necessary to prevent, protect against, and ameliorate negative effects.

Public Health Co-benefits: Increased life expectancy or reduced incidents of diseases or deaths attributed to air quality (indoor or outdoor), weather, poor sanitation, or lack of access to nutrients.

Racial Equity: When race can no longer be used to predict life outcomes.

Resilience: A capability to anticipate, prepare for, respond to, and recover from significant multi-hazard threats with minimum damage to social well-being, the economy, and the environment.

Risk: Risks are threats to life, health and safety, the environment, economic well-being, and other things of value. Risks are often evaluated in terms of how likely they are to occur (probability) and the level of damages that would result if they did happen (consequences) which in turn depend on system vulnerability, sensitivity level, adaptive capacity, and threat severity.

Sensitivity Level: Likelihood of negative impact to people, systems, and assets from a climate hazard.

Social Justice: When all people have access to the same rights and systems, there is a fair distribution of resources, and life outcomes are improved for all groups.

Underrepresented Community: A community that is not represented in City or local leadership proportionately to its demographic percentage of the total City population.

Vehicle Miles Traveled (VMT): VMT is a measure of the total distance traveled by cars; usually measured on an annual basis.

Vulnerability: The degree to which a system is susceptible to, or unable to cope with, adverse effects of climate change, including climate variability and extremes. Vulnerability is a function of the character, magnitude, and rate of climate variation to which a system is exposed, its sensitivity, and its adaptive capacity.

Weather: Atmospheric condition at any given time or place. It is measured in such terms as wind, temperature, humidity, atmospheric pressure, cloudiness, and precipitation. In most places, weather can change from hour-to-hour, day-to-day, and season-to-season.

Zero Emission Vehicles: Vehicles powered by electricity or other clean fuel technologies, including hydrogen fuel cells.