

Description:

This section acts as a reference for common climate and energy related terms which we update from time to time.

ABBREVIATIONS	DESCRIPTION	SOURCE
AFV	Alternative Fuel Vehicle - Vehicles that run on fuels other than petroleum-based fuels.	https://afdc.energy.gov/fuels/
Base load	The lowest level of power production needs during a season or year or any period of time.	https://sinovoltaics.com/learning-center/basics/base-load-peak-load/
Base rate	The portion of the total electric or gas rate covering the general costs of doing business unrelated to fuel expenses.	https://www.nrel.gov/state-local-tribal/blog/posts/phrase-of-the-day-rate-base.html
BECCS	Bioenergy with carbon capture and storage (BECCS) refers to carbon emissions from bioenergy sources that are captured and stored.	https://www.iea.org/reports/bioenergy-with-carbon-capture-and-storage
BioCNG	Bio-Compressed Natural Gas (BioCNG) is a renewable and "non-fossil fuel" alternative to (compressed) natural gas. It is comprised of purified and "grid-quality" biogas that is produced by fermenting biomass.	https://gasmobility.totalenergies.com/gas-fuel-products/cng-biocng
Bioenergy	Renewable energy that is derived from recently living organic materials, eg biomass.	https://www.energy.gov/eere/bioenergy/bioenergy-basics
Biofuel	Fuel derived from biomass for example wood pellet, coconut husk, rice straw and corn cobs.	https://www.energy.gov/eere/bioenergy/biofuel-basics
BOOT-FIT	Build Own Operate & Transfer - Feed-in-Tariff -- a mechanism where "a government entity grants to a private sector party the right to finance, design, construct, own and operate a project for a specified number of years".	https://uk.practicallaw.thomsonreuters.com/3-501-2256?transitionType=Default&contextData=(sc.Default)&firstPage=true
Bottoming Cycle in Cogeneration	Primary heat used directly for process requirements. Waste heat is used to produce electricity. (see 'Co-generation').	https://beeindia.gov.in/sites/default/files/2Ch7.pdf
CaP	Captive Power (CaP) is produced by captive power plants which are used to generate localized power source for the consumers (who are usually in the industry or commercial sector) that own the said plant.	https://www.clarke-energy.com/applications/captive-power-plants/
Biomass CoF	Biomass co-firing (CoF) is a process of adding biomass as a partial substitute fuel in high efficiency coal boilers.	https://www.etipbioenergy.eu/value-chains/conversion-technologies/conventional-technologies/biomass-co-firing
Co-generation	An energy efficient technology which enables simultaneous production of two different forms of useful energy, typically electricity and thermal energy from a single primary energy source. The electricity generated is normally for onsite use and any excess may be exported to the local utility network.	https://beeindia.gov.in/sites/default/files/2Ch7.pdf
CCUS	Carbon Capture, Utilisation and Storage (CCUS) refers to capturing carbon dioxide, from energy-intensive industries or directly from the atmosphere, transporting and storing the captured carbon permanently underground or utilising the captured carbon in other processes.	https://www.iea.org/fuels-and-technologies/carbon-capture-utilisation-and-storage
CNG	Compressed Natural Gas (CNG) refers to natural gas that has been compressed under atmospheric pressure to less than 1% of its original volume.	https://afdc.energy.gov/fuels/natural_gas_basics.html
DDI	Direct Domestic Investment (DDI), also known as Foreign Direct Investment, refers to "an investment in a foreign business enterprise designed to acquire a controlling interest in the enterprise".	https://www.investopedia.com/terms/d/direct-investment.asp
DTN	National Energy Policy, 2022-2040 or <i>Dasar Tenaga Nasional 2022-2040</i> "strategically charts the way forward and outlines key priorities for the energy sector in the coming years".	https://www.epu.gov.my/sites/default/files/2022-09/National%20Energy%20Policy_2022_2040.pdf
E&E	Electrical and electronics. Electrical refers to the flow of electrical power or charge. Electronics refers to the flow of electrons.	https://chennai.vit.ac.in/difference-between-electrical-and-electronics-engineering/

EACG	According to Sustainable Energy Development Authority (SEDA), the Energy Audit Conditional Grant (EACG) is an energy efficiency programme under the 12th Malaysia plan that supports and encourages commercial and industrial companies to "collaborate with local energy service companies (ESCOs) registered with the energy commission (ST) to conduct energy audit in their buildings".	https://www.seda.gov.my/energy-demand-management-edm/energy-audit-conditional-grant-commercial-building/
EE	Energy Efficiency (EE) refers to the use of less energy to carry out the same processes or activities through upgrading facilities, appliances, and equipment to consume less energy when in use.	https://www.energy.gov/eere/energy-efficiency
EECA	The Energy Efficiency and Conservation Act (EECA) is an "Act Institutionalizing Energy Efficiency and Conservation, Enhancing the Efficiency Use of Energy, and Granting Incentives to Energy Efficiency and Conservation Projects".	https://www.iea.org/policies/7402-act-11245-the-energy-efficiency-and-conservation-act
EEV	Energy-efficient vehicle -- vehicles that utilize less energy, produce less carbon emissions, and are a more environmentally-friendly alternative to normal vehicles.	https://msocialsciences.com/index.php/mjssh/article/view/715
Electrolyser	An apparatus used in hydrogen-based energy, to produce hydrogen through electrolysis (separating hydrogen and oxygen molecule).	https://www.energy.gov/eere/fuelcells/hydrogen-production-electrolysis
Energy demand	The consumption of energy by human activity.	https://www.creds.ac.uk/what-is-energy-demand/
Energy equity	Promotes equal distribution of accessibility and affordability to energy and effective rural energy access.	https://www.pnnl.gov/projects/energy-equity
Energy storage	The capture of energy produced at one time for use at a later time to reduce imbalances between energy demand and energy production.	https://www.ucsusa.org/resources/how-energy-storage-works https://www.energy.gov/oe/energy-storage
EPC	According to IPM Professional Services, the Energy Performance Contract (EPC) is a "mechanism that uses market-based capital and technology to improve energy efficiency in buildings, industry, and other areas".	https://ipm.my/energy-performance-contract-epc-in-malaysia-and-other-countries/
ESCO	According to the US Department of Energy, energy service company (ESCO) refers to project developers/firms that "develop, design, build, and arrange financing for projects that save energy, reduce energy costs, and decrease operations and maintenance costs at their customers' facilities".	https://www.energy.gov/eere/femp/energy-service-companies-0
EV	Electric vehicle (EV) refers to vehicles that run on electricity and have an electric motor instead of an internal combustion engine.	https://afdc.energy.gov/vehicles/how-do-all-electric-cars-work
FIT	Feed-in-Tariff (FIT) is a scheme that allows consumers to sell electricity, that they have generated, back to the grid. These consumers are compensated well, usually above market prices to encourage the reuse of renewable energy.	https://www.mytnb.com.my/renewable-energy/feed-in-tariff
FPV	Floating Photovoltaics (FPV) or Floating Solar are solar panels mounted on a structure that floats on a water body.	https://www.nrel.gov/state-local-tribal/blog/posts/floating-solar-photovoltaics-could-make-a-big-splash-in-the-usa.html
GSO	Grid System Operator (GSO) is a regulatory system used to manage the electricity supply, operation, and use of the Peninsular grid system.	https://www.gso.org.my/Home/AboutUs.aspx
GTFS	Green Technology Financing Scheme (GTFS) is a financial scheme introduced by the Malaysian government to support green technology.	https://www.mgtc.gov.my/our-services/green-technology-financing-scheme/
JV-FIT	Joint Venture - Feed-in-Tariff (JV-FIT) refers to two or more parties joining together to generate their own electricity and selling it back to the grid.	https://www.nortonrosefulbright.com/en/knowledge/publications/8d100183/joint-ventures-in-context-expert-interviews-onshore
HHI	Herfindahl-Hirschman Index (HHI), a commonly accepted measure of market concentration in determining market competitiveness.	https://www.justice.gov/atr/herfindahl-hirschman-index
HVO	Hydrotreated Vegetable Oil (HVO) is a paraffinic bio-based liquid fuel originating from many kinds of vegetable oils.	https://watsonfuels.co.uk/for-business/lower-carbon-solutions/hvo-renewable-diesel/

ICEV	In Internal Combustion Engine Vehicles (ICEV), the ignition and combustion of the fuel occurs inside the internal combustion engine (ICE) itself. There are two main types of ICE: 1. Spark ignition gasoline engine and 2. Compression ignition diesel engine. These engines are also compatible with renewable or alternative fuel sources.	https://www.energy.gov/eere/vehicles/articles/internal-combustion-engine-basics
Installed Capacity	According to Reuters, installed capacity is the maximum amount of electricity that a generating station (also known as a power plant) can produce under specific conditions designated by the manufacturer.	https://uk.practicallaw.thomsonreuters.com/7-517-7373?originationContext=document&transitionType=DocumentItem&contextData=(sc.Default)&firstPage=true
IPP	Independent Power Provider (IPP), an entity that owns and operates facilities to generate electrical power for sale to utilities (e.g. TNB).	https://www.st.gov.my/images/highlight/FactSheet.pdf
LNG	Liquefied Natural Gas (LNG) is natural gas in liquid form by cooling it down. To ensure a much safer and easier transport and storage.	https://www.shell.com/energy-and-innovation/natural-gas/liquefied-natural-gas-lng.html
LPG	Liquefied Petroleum Gas (LPG) is a mixture of mainly propane and butane, which are lighter hydrocarbons. It becomes liquid under high pressure and is used as fuel for cooktops, ovens, and portable heaters.	https://www.gasmalaysia.com/our-business/lpg/
LCOE	According to the US Department of Energy, levelised cost of energy (LCOE) "measures lifetime costs divided by energy production". It "allows the comparison of different technologies, capital cost, risk, return, and capacities".	https://www.energy.gov/sites/prod/files/2015/08/f25/LCOE.pdf https://corporatefinanceinstitute.com/resources/valuation/levelized-cost-of-energy-lcoe/
LSS	Large Scale Solar (LSS) is a scheme that allows consumers to install their own photovoltaic panels (installed capacity ranging from 1MW to <30MW) to generate their own electricity, which can be sold back to the grid.	https://www.mytnb.com.my/renewable-energy/large-scale-solar
MEPS	Minimum Energy Performance Standards (MEPS) refers to a standard set to ensure the minimum level of energy efficiency which must be met by electrical appliances/devices that utilize energy.	https://www.matec-conferences.org/articles/mateconf/pdf/2016/41/mateconf_icongdm2016_01058.pdf
NEEAP	Malaysia's National Energy Efficiency Action Plan (NEEAP) is a plan that details strategies for the implementation and promotion of cost-effective and effective energy efficiency plan across all sectors in Malaysia. This plan only applies to electrical energy and it aims to reduce wastage of electricity consumption and cost for the consumers.	https://www.pmo.gov.my/wp-content/uploads/2019/07/National-Energy-Efficiency-Action-Plan.pdf
NEM	Net Energy Metering (NEM) refers to consumers generating their own electrical supply using their own photovoltaic system to offset and reduce their electricity bills.	https://www.mytnb.com.my/renewable-energy/net-energy-metering
NPV	Net Present Value (NPV), the difference between the present value of cash inflows and the present value of cash outflows over a period of time.	https://hbr.org/2014/11/a-refresher-on-net-present-value
NxGV	Next-generation vehicles (NxGV) are environmentally-friendly alternatives to current vehicles. It is fuel-efficient and produces little to no carbon emissions.	https://www.carlist.my/news/nxgv-what-is-that-77104/77104/
OEM	Original equipment manufacturer (OEM) refers to a company that produces products or parts of a product to sell to another company, who then sells the final product to consumers, under their own branding.	https://corporatefinanceinstitute.com/resources/valuation/original-equipment-manufacturer-oem/
OGSE	According to Malaysian Investment Development Authority (MIDA), Oil & Gas Services and Equipment "covers the upstream (Oil & Gas) field services, midstream (transportation and storage), and maintenance of machinery and equipment (Machinery and Equipment)".	https://www.mida.gov.my/industries/services/oil-and-gas/oil-gas-services-and-equipment/
POGO Spread	According to CME Group, the Palm Oil - Gas Oil Spread (POGO Spread) "is a financially settled contract that tracks the price differential between the European Low Sulphur Gasoil and Malaysian Crude Palm Oil".	https://www.cmegroup.com/education/articles-and-reports/palm-oil-spread-volatility-creates-opportunities.html
PPA	According to the US Department of Energy, the Power Purchase Agreement (PPA) "is an arrangement in which a third-party developer installs, owns, and operates an energy system on a customer's property. The customer then purchases the system's electric output for a predetermined period".	https://ppp.worldbank.org/public-private-partnership/sector/energy/energy-power-agreements/power-purchase-agreements https://betterbuildingssolutioncenter.energy.gov/financing-navigator/option/power-purchase-agreement

Pyrolysis	Refers to the process of thermal decomposition (burning) of products (usually organic materials, such as biomass) at extremely high temperatures in an inert environment (absence of oxygen). This process involves chemical alteration of the composition of the initial product, such as turning biomass into bio-oil.	https://www.ars.usda.gov/northeast-area/wyndmoor-pa/eastern-regional-research-center/docs/biomass-pyrolysis-research-1/what-is-pyrolysis/
R&C	In energy sector, Residential and Commercial (R&C) is one of the categories of energy usage which primarily results from activities that take place in homes and other buildings.	https://unfccc.int/resource/cd_roms/na1/mitigation/Resource_materials/Greenhouse_Gas_Mitigation_Assessment_Guidebook_1995/chap05.pdf
RE	According to the UN, Renewable Energy (RE) is energy derived from natural sources that are replenished at a faster rate than they are consumed. Producing RE also produces less amounts of GHGs as compared to burning fossil fuels. Some examples include solar and wind energy.	https://www.un.org/en/climatechange/what-is-renewable-energy
RHT	Restoration Hydro Turbine (RHT) is a hydroelectric turbine designed using civil engineering techniques. It functions to reduce damage to marine life. One of its many designs incorporates the use of blunt and slanted propellers to deflect oncoming fishes.	https://theindexproject.org/award/nominees/6472
RNG	Renewable Natural Gas (RNG) refers to biogas that has been processed and purified to be a suitable alternative to natural gas.	https://afdc.energy.gov/fuels/natural_gas_renewable.html
SELCO	According to SEDA, self-consumption (SELCO) applies when electricity is being generated for own usage and any excess is not allowed to be exported to the grid.	https://www.seda.gov.my/reportal/self-consumption/
Topping Cycle in Cogeneration	Primary heat used for electricity. Waste heat is used for secondary heating or power applications. (see 'Co-generation').	https://beeindia.gov.in/sites/default/files/2Ch7.pdf
TPES	Total Primary Energy Supply - The sum of primary energy a country has at their disposal, includes imported energy and energy from domestic energy production, e.g. from oil, gas and coal, hydro, solar, bioenergy, minus energy that is exported.	https://energyeducation.ca/encyclopedia/Total_primary_energy_supply
VPS	Virtual Pipeline System - pipelines to provide reliable gas supply for end users.	https://www.naturalgasintel.com/virtual-pipeline/
VRE	Variable renewable energy (VRE) refers to renewable energy sources with variable supply, such as wind and solar. This means that the abundance and intensity of the renewable energy source varies depending on favorable conditions that cannot be controlled or predicted easily, such as weather conditions, wind supply etc.	https://www.e-education.psu.edu/eme801/node/539