

# Glossary

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T

**T:** trillion  $10^{12}$

**t:** tenth

**Tailgate:** The outlet of a natural gas processing plant where dry residue gas is delivered or re-delivered for sale or transportation.

**Tailings:** The remaining portion of a metal-bearing ore consisting of finely ground rock and process liquid after some or all of the metal, such as uranium, has been extracted.

**Tall oil:** The oily mixture of rosin acids, fatty acids, and other materials obtained by acid treatment of the alkaline liquors from the digesting (pulping) of pine wood.

**TAME:** See [Tertiary Amyl Methyl Ether](#).

**Tangible development costs:** Costs incurred during the development stage for access, mineral-handling, and support facilities having a physical nature. In mining, such costs would include tracks, lighting equipment, ventilation equipment, other equipment installed in the mine to facilitate the extraction of minerals, and supporting facilities for housing and care of work forces. In the oil and gas industry, tangible development costs would include well equipment (such as casing, tubing, pumping equipment, and well heads), as well as field storage tanks and gathering systems.

**Tank farm:** An installation used by trunk and gathering pipeline companies, crude oil producers, and terminal operators (except refineries) to store crude oil.

**Tanker and barge:** Vessels that transport crude oil or petroleum products. Note: Data are reported for movements between PAD Districts; from a PAD District to the Panama Canal; or from the Panama Canal to a PAD District.

**Tar sands:** Naturally occurring bitumen-impregnated sands that yield mixtures of liquid hydrocarbon and that require further processing other than mechanical blending before becoming finished petroleum products.

**Tariff:** A published volume of rate schedules and general terms and conditions under which a product or service will be supplied.

**Tax-cost:** A deduction (allowance) under U.S. Federal income taxation normally calculated under a formula whereby the adjusted basis of the mineral property is multiplied by a fraction, the numerator of which is the number of units of minerals sold during the tax year and the denominator of which is the estimated number of units of unextracted minerals remaining at the end of the tax year plus the number of units of minerals sold during the tax year.

**TBA:** See [Tertiary Butyl Alcohol](#)

**Telemetry (electric):** The process by which measurable electrical quantities from substations and generating stations are instantaneously transmitted to the control center, and, by which, operating commands from the control center are transmitted to the substations and generating stations. [NERC definition](#)

**Temperature coefficient (of a solar photovoltaic cell):** The amount that the voltage, current, and/or power output of a solar cell changes due to a change in the cell temperature.

**Temporarily discharged fuel:** Fuel that was irradiated in the previous fuel cycle (cycle N) and not in the following fuel cycle (cycle N+1) and that will be irradiated in a subsequent fuel cycle.

**Tennessee Valley Authority (TVA):** A federal agency established in 1933 to develop the Tennessee river valley region of the southeastern U.S.

**Terawatthour:** One trillion watt hours.

**Term agreement:** Any written or unwritten agreement between two parties in which one party agrees to supply a commodity on a continuing basis to a second party for a price or for other considerations.

**Terminal location:** The physical location of one end of a transmission line segment.

**Terrestrial sequestration:** Biotic sequestration of carbon in above- and below-ground biomass and soils.

**Tertiary amyl methyl ether -  $(\text{CH}_3)_2(\text{C}_2\text{H}_5)\text{COCH}_3$ :** An oxygenate blend stock formed by the catalytic etherification of isoamylene with methanol.

**Tertiary butyl alcohol -  $(\text{CH}_3)_3\text{COH}$ :** An alcohol primarily used as a chemical feedstock or a solvent or feedstock, for isobutylene production for MTBE (methyl tertiary butyl ether) and produced as a co-product of propylene oxide production or by direct hydration of isobutylene.

**Test well contribution:** A payment made to the owner of an adjacent or nearby tract who has drilled an exploratory well on that tract in exchange for information obtained from the drilling effort.

**th:** thousandth

**Therm:** One hundred thousand (100,000) Btu.

**Thermal conversion factor:** A factor for converting data between physical units of measure (such as barrels, cubic feet, or short tons) and thermal units of measure (such as British thermal units, calories, or joules); or for converting data between different thermal units of measure. See [Btu conversion factor](#).

**Thermal cracking:** A refining process in which heat and pressure are used to break down, rearrange, or combine hydrocarbon molecules. Thermal-cracking includes gas oil, visbreaking, fluid coking, delayed coking, and other thermal cracking processes (e.g., flexicoking).

**Thermal efficiency:** A measure of the efficiency of converting a fuel to energy and useful work; useful work and energy output divided by higher heating value of input fuel times 100 (for percent).

**Thermal energy storage:** The storage of heat energy during utility off-peak times at night, for use during the next day without incurring daytime peak electric rates.

**Thermal limit:** The maximum amount of power a transmission line can carry without suffering heat-related deterioration of line equipment, particularly conductors.

**Thermal rating (electric):** The maximum amount of electrical current that a transmission line or electrical facility can conduct over a specified time period before it sustains permanent damage by overheating or before it sags to the point that it violates public safety requirements. [NERC definition](#)

**Thermal resistance (R-Value):** This designates the resistance of a material to heat conduction. The greater the R-value the larger the number.

**Thermal storage:** Storage of heat or heat sinks (coldness) for later heating or cooling. Examples are the storage of solar energy for night heating; the storage of summer heat for winter use; the storage of winter ice for space cooling in the summer; and the storage of electrically-generated heat or coolness when electricity is less expensive, to be released in order to avoid using electricity when the rates are higher. There are four basic types of thermal storage systems: ice storage; water storage; storage in rock, soil or other types of solid thermal mass; and storage in other materials, such as glycol (antifreeze).

**Thermocouple:** A device consisting of two dissimilar conductors with their ends connected together. When the two junctions are at different temperatures, a small voltage is generated.

**Thermodynamics:** A study of the transformation of energy from one form to another, and its practical application.

**Thermophotovoltaic cell:** A device where sunlight concentrated onto a absorber heats it to a high temperature, and the thermal radiation emitted by the absorber is used as the energy source for a photovoltaic cell that is designed to maximize conversion efficiency at the wavelength of the thermal radiation.

**Thermosiphon system:** A solar collector system for water heating in which circulation of the collection fluid through the storage loop is provided solely by the temperature and density difference between the hot and cold fluids.

**Thermostat:** A device that adjusts the amount of heating and cooling produced and/or distributed by automatically responding to the temperature in the environment.

**Third-party DSM program sponsor:** An energy service company (ESCO) which promotes a program sponsored by a manufacturer or distributor of energy products such as lighting or

refrigeration whose goal is to encourage consumers to improve energy efficiency, reduce energy costs, change the time of usage, or promote the use of a different energy source.

**Third-party transactions:** Third-party transactions are arms-length transactions between non-affiliated firms. Producing country-to-company transactions are not considered to be third-party transactions.

**Thorium:** An element that is a byproduct of the decay of uranium.

**Three-phase power:** Power generated and transmitted from generator to load on three conductors.

**Tidewater piers and coastal ports (method of transportation to consumers):** Shipments of coal moved to tidewater piers and coastal ports for further shipments to consumers via coastal water or ocean.

**Tie line:** A transmission line connecting two or more power systems.

**Tie line (electric):** A circuit connecting two Balancing Authority Areas. Also, describes circuits within an individual electrical system. [NERC definition](#)

**Tight oil:** Oil produced from petroleum-bearing formations with low permeability such as the Eagle Ford, the Bakken, and other formations that must be hydraulically fractured to produce oil at commercial rates. Shale oil is a subset of tight oil.

**Time clocks or timed switches:** Time clocks are automatic controls, which turn lights off and on at pre determined times.

**Time-of-day lock-out or limit:** A special electric rate feature under which electricity usage is prohibited or restricted to a reduced level at fixed times of the day in return for a reduction in the price per kilowatt hour.

**Time-of-day pricing:** A special electric rate feature under which the price per kilowatt hour depends on the time of day.

**Time-of-day rate:** The rate charged by an electric utility for service to various classes of customers. The rate reflects the different costs of providing the service at different times of the day.

**Timing differences:** Differences between the periods in which transactions affect taxable income and the periods in which they enter into the determination of pretax accounting income. Timing differences originate in one period and reverse or "turn around" in one or more subsequent periods. Some timing differences reduce income taxes that would otherwise be payable currently; others increase income taxes that would otherwise be payable currently.

**Tinted or reflective glass or shading films:** Types of glass or a shading film applied to glass that, when installed on the exterior of a building, reduces the rates of solar penetration into the building. Includes Low E Glass.

**Tipping fee:** Price charged to deliver municipal solid waste to a landfill, waste-to-energy facility, or recycling facility.

**Tipple:** A central facility used in loading coal for transportation by rail or truck.

**Tolling arrangement:** Contract arrangement under which a raw material or intermediate product stream from one company is delivered to the production facility of another company in exchange for the equivalent volume of finished products and payment of a processing fee.

**Toluene (C<sub>6</sub>H<sub>5</sub>CH<sub>3</sub>):** Colorless liquid of the aromatic group of petroleum hydrocarbons, made by the catalytic reforming of petroleum naphthas containing methyl cyclohexane. A high-octane gasoline-blending agent, solvent, and chemical intermediate, and a base for TNT (explosive).

**Ton mile:** The product of the distance that freight is hauled, measured in miles, and the weight of the cargo being hauled, measured in tons. Thus, moving one ton for one mile generates one ton mile.

**Topping cycle:** A boiler produces steam to power a turbine-generator to produce electricity. The steam leaving the turbine is used in thermal applications such as space heating and/or cooling or delivered to other end user(s).

**Total discoveries:** The sum of extensions, new reservoir discoveries in old fields, and new field discoveries, that occurred during the report year.

**Total gas in storage:** The sum of base gas and working gas.

**Total liquid hydrocarbon reserves:** The sum of crude oil and natural gas liquids reserves volumes.

**Total Natural Gas Storage Field Capacity (Design Capacity):** The maximum quantity of natural gas (including both [base gas](#) and [working gas](#)) that can be stored in a natural gas underground storage facility in accordance with its design specifications, the physical characteristics of the reservoir, installed compression equipment, and operating procedures particular to the site. Reported storage field capacity data are reported in thousand cubic feet at standard temperature and pressure.

**Total operated basis:** The total reserves or production associated with the wells operated by an individual operator. This is also commonly known as the "gross operated" or "8/8ths" basis.

**Transfer capability:** The overall capacity of interregional or international power lines, together with the associated electrical system facilities, to transfer power and energy from one electrical system to another.

**Transfer price:** The monetary value assigned to products, services, or rights conveyed or exchanged between related parties, including those occurring between units of a consolidated entity.

**Transformer:** An electrical device for changing the voltage of alternating current.

**Transmission (electric):** An interconnected group of lines and associated equipment for the movement or transfer of electric energy between points of supply and points at which it is transformed for delivery to customers or is delivered to other electric systems. [NERC definition](#)

**Transmission (electric) (verb):** The movement or transfer of electric energy over an interconnected group of lines and associated equipment between points of supply and points at which it is transformed for delivery to consumers or is delivered to other electric systems.

Transmission is considered to end when the energy is transformed for distribution to the consumer.

**Transmission and distribution loss:** Electric energy lost due to the transmission and distribution of electricity. Much of the loss is thermal in nature.

**Transmission circuit:** A conductor used to transport electricity from generating stations to load.

**Transmission constraint (electric):** A limitation on one or more transmission elements that may be reached during normal or contingency system operations. [NERC definition](#)

**Transmission line:** A set of conductors, insulators, supporting structures, and associated equipment used to move large quantities of power at high voltage, usually over long distances between a generating or receiving point and major substations or delivery points.

**Transmission line (electric):** A system of structures, wires, insulators and associated hardware that carry electric energy from one point to another in an electric power system. Lines are operated at relatively high voltages varying from 69 kV up to 765 kV, and are capable of transmitting large quantities of electricity over long distances. [NERC definition](#)

**Transmission network:** A system of transmission or distribution lines so cross-connected and operated as to permit multiple power supply to any principal point.

**Transmission operator (electric):** The entity responsible for the reliability of its localized transmission system, and that operates or directs the operations of the transmission facilities. [NERC definition](#)

**Transmission owner (electric):** The entity that owns and maintains transmission facilities. [NERC definition](#)

**Transmission Service Provider (electric):** The entity that administers the transmission tariff and provides Transmission Service to Transmission Customers under applicable transmission service agreements. [NERC definition](#)

**Transmission system (electric):** An interconnected group of electric transmission lines and associated equipment for moving or transferring electric energy in bulk between points of supply and points at which it is transformed for delivery over the distribution system lines to consumers or is delivered to other electric systems.

**Transmission type (engine):** The transmission is the part of a vehicle that transmits motive force from the engine to the wheels, usually by means of gears for different speeds using either a hydraulic "torque-converter" (automatic) or clutch assembly (manual). On front-wheel drive cars, the transmission is often called a "transaxle." Fuel efficiency is usually higher with manual rather than automatic transmissions, although modern, computer-controlled automatic transmissions can be efficient.

**Transmitting utility:** A regulated entity which owns and may construct and maintain wires used to transmit wholesale power. It may or may not handle the power dispatch and coordination functions. It is regulated to provide non-discriminatory connections, comparable service, and cost recovery.

**Transport:** Movement of natural, synthetic, and/or supplemental gas between points beyond the immediate vicinity of the field or plant from which produced except (1) for movements through well or field lines to a central point for delivery to a pipeline or processing plant within the same state or (2) movements from a city gate point of receipt to consumers through distribution mains.

**Transportation agreement:** Any contractual agreement for the transportation of natural and/or supplemental gas between points for a fee.

**Transportation energy expenditures:** See [Vehicle fuel expenditures](#).

**Transportation sector:** An energy-consuming sector that consists of all vehicles whose primary purpose is transporting people and/or goods from one physical location to another. Included are automobiles; trucks; buses; motorcycles; trains, subways, and other rail vehicles; aircraft; and ships, barges, and other waterborne vehicles. Vehicles whose primary purpose is not transportation (e.g., construction cranes and bulldozers, farming vehicles, and warehouse tractors and forklifts) are classified in the sector of their primary use. *Note:* Various EIA programs differ in sectoral coverage.

**Transported gas:** Natural gas physically delivered to a building by a local utility, but not purchased from that utility. A separate transaction is made to purchase the volume of gas, and the utility is paid for the use of its pipeline to deliver the gas. Also called "Direct-Purchase Gas," "Spot Market Gas," "Spot Gas," "Gas for the Account of Others", and "Self-Help Gas."

**Transporter:** The party or parties, other than buyer or seller, owning the facilities by which gas or LNG is physically transferred between buyer and seller.

**Transshipment:** A method of ocean transportation whereby ships off-load their oil cargo to a deep water terminal, floating storage facility, temporary storage, or to one or more smaller tankers from which or in which the oil is then transported to a market destination.

**Treating plant:** A plant designed primarily to remove undesirable impurities from natural gas to render the gas marketable.

**Trillion Btu:** Equivalent to 1,000,000,000,000 or 10 to the 12th power Btu.

**Troposphere:** The inner layer of the atmosphere below about 15 kilometers, within which there is normally a steady decrease of temperature with increasing altitude. Nearly all clouds form and weather conditions manifest themselves within this region. Its thermal structure is caused primarily by the heating of the earth's surface by solar radiation, followed by heat transfer through turbulent mixing and convection.

**Trough:** High-temperature (180+) concentrator with one axis-tracking.

**Trunk line:** A main pipeline.

**Turbine:** A machine for generating rotary mechanical power from the energy of a stream of fluid (such as water, steam, or hot gas). Turbines convert the kinetic energy of fluids to mechanical energy through the principles of impulse and reaction, or a mixture of the two.

**TVA:** See [Tennessee Valley Authority](#)

**TWh:** See [Terawatthour](#)

**Type of drive (vehicle):** Refers to which wheels the engine power is delivered to, the so-called "drive wheels." Rear-wheel drive has drive wheels on the rear of the vehicle. Front-wheel drive, a newer technology, has drive wheels on the front of the vehicle. Four-wheel drive uses all four wheels as drive wheels and is found mostly on Jeep-like vehicles and trucks, though it is becoming increasingly more common on station wagons and vans.

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