

## Glossary

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**Aquifer storage field:** A subsurface facility for storing natural gas consisting of water-bearing sands topped by an impermeable cap rock.

**Balancing item:** Represents differences between the sum of the components of natural gas supply and the sum of the components of natural gas disposition. These differences may be due to quantities lost or to the effects of data-reporting problems. Reporting problems include:

- Differences due to the net result of conversions of flow data metered at varying temperature and pressure bases and converted to a standard temperature and pressure base
- The effect of variations in company accounting and billing practices
- Differences between billing cycle and calendar period time frames
- Imbalances resulting from the merger of data-reporting systems that vary in scope, format, definitions, and type of respondents

**Biomass gas:** A gas with a moderate level of British thermal units containing methane and carbon dioxide, resulting from the feeding of microorganisms on organic materials such as a landfill.

**British thermal unit (Btu):** The quantity of heat required to raise the temperature of 1 pound of water by 1°F at the temperature at which water has its greatest density (approximately 39°F).

**British thermal units per cubic foot:** The total heating value, expressed in British thermal units, produced by the combustion, at constant pressure, of the amount of the gas that would occupy the volume of 1 cubic foot at a temperature of 60°F if saturated with water vapor and under a pressure equivalent to that of 30 inches of mercury at 32°F and under standard gravitational force (980.665 cm. per sec. squared) with air of the same temperature and pressure as the gas, when the products of combustion are cooled to the initial temperature of gas and air when the water formed by combustion is condensed to the liquid state. Sometimes called gross heating value or total heating value.

**Citygate:** A point or measuring station at which a distributing natural gas utility receives natural gas from a natural gas pipeline company or transmission system.

**Coalbed methane well gas:** Methane is generated during coal formation and is contained in the coal seam microstructure. Methane is the principal component of natural gas. Coal bed methane can be added to natural gas pipelines without any special treatment.

**Coke oven gas:** The mixture of permanent gases produced by the carbonization of coal in a coke oven at temperatures in excess of 1,000°C.

**Commercial consumption:** Natural gas used by local, state, and federal nonmanufacturing establishments or agencies primarily engaged in the sale of goods or services such hotels, restaurants, and wholesale and retail stores.

**Compressed natural gas (CNG):** Natural gas, which is comprised primarily of methane, compressed to a pressure at or above 2,400 pounds per square inch and stored in special high-pressure containers. It is used as a fuel for natural gas-powered vehicles.

**Consumption:** Natural gas used as lease fuel, plant fuel, for use by pipeline and distribution systems, and by end users (including residential, commercial, industrial, electric power, and vehicle fuel).

**Customer choice:** The right of customers to purchase energy from a supplier other than their traditional supplier or from more than one seller in the retail market.

**Delivered:** The physical transfer of natural, synthetic, or supplemental gas from facilities operated by the responding company to facilities operated by others or to consumers.

**Depleted storage field:** A subsurface natural geological reservoir, usually a depleted oil or natural gas field, used for storing natural gas.

**Dry natural gas:** Natural gas that remains after the liquefiable hydrocarbon portion has been removed from the natural gas stream (in other words, natural gas after lease, field, or plant separation). As the dry natural gas is processed, any volumes of nonhydrocarbon gases are removed where they occur in sufficient quantity to render the natural gas unmarketable. Dry natural gas is also called consumer-grade natural gas. The parameters for measurement are cubic feet at 60°F and 14.73 pounds per square inch absolute.

**Dry natural gas production:** The process of producing consumer-grade natural gas. Natural gas withdrawn from reservoirs is reduced by volumes used at the production (lease) site and by processing losses. Volumes used at the production site include the volume returned to reservoirs in cycling, repressuring of oil reservoirs, and conservation operations as well as natural gas vented and flared. Processing losses include nonhydrocarbon gases (for example, water vapor, carbon dioxide, helium, hydrogen sulfide, and nitrogen) removed from the natural gas stream as well as natural gas converted to liquid form, such as lease condensate and plant liquids. We do not consider volumes of dry natural gas withdrawn from natural gas storage reservoirs as part of production. Dry natural gas production equals marketed production minus natural gas plant liquids production.

**Electric power consumption:** Natural gas used as fuel in the electric power sector.

**Electric power sector:** An energy-consuming sector that consists of electricity-only and combined-heat-and-power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public. These facilities are categorized under code 22 according to the North American Industry Classification System.

**Electric utility:** A corporation, person, agency, authority, or other legal entity or instrumentality aligned with distribution facilities to deliver electricity to be used primarily by the public. Included are investor-owned electric utilities, municipal and state utilities, federal electric utilities, and rural electric cooperatives. A few entities that are tariff based and corporately aligned with companies that own distribution facilities are also included.

Due to the issuance of FERC Order 888 that required traditional electric utilities to functionally unbundled their generation, transmission, and distribution operations, *electric utility* currently has inconsistent interpretations from state to state.

**Exports:** Natural gas deliveries out of the United States (including Alaska) to foreign countries.

**Flared:** Natural gas disposed of by burning in flares usually at the production sites or at natural gas processing plants.

**Gross withdrawals:** Full well stream volume, including all natural gas plant liquid and nonhydrocarbon gases, but excluding lease condensate. Also includes amounts delivered as royalty payments or consumed in field operations.

**Heating season:** Typically begins in November and runs through the end of March.

**Heating value:** The average number of British thermal units per cubic foot of natural gas as determined from tests of fuel samples.

**Imports:** Natural gas received in the United States (including Alaska) from a foreign country.

**Industrial consumption:** Natural gas used for heat, power, or chemical feedstock by consumers in manufacturing, mining or other mineral extraction, agriculture, forestry, and fisheries. Also included in industrial consumption are generators that produce electricity or useful thermal output primarily to support the previously mentioned industrial activities.

**Intransit deliveries:** Redeliveries to a foreign country of foreign natural gas received for transportation across U.S. territory and deliveries of U.S. natural gas to a foreign country for transportation across its territory and redelivery to the United States.

**Intransit receipts:** Receipts of foreign natural gas for transportation across U.S. territory and redelivery to a foreign country and redeliveries to the United States of U.S. natural gas transported across foreign territory.

**Lease fuel:** Natural gas used in well, field, or lease operations (such as natural gas used in drilling operations, heaters, dehydrators, and field compressors) and as fuel in natural gas processing plants.

**Liquefied natural gas (LNG):** Natural gas (primarily methane) that has been liquefied by reducing its temperature to - 260°F at atmospheric pressure.

**Local distribution company (LDC):** A legal entity engaged primarily in the retail sale and delivery of natural gas through a distribution system that includes mainlines (that is, pipelines designed to carry large volumes of natural gas, usually located under roads or other major right-of-ways) and laterals (that is, pipelines of smaller diameter that connect the end user to the mainline). In recent years, the sale of natural gas and delivery arrangements is more commonly be handled by other agents, such as producers, brokers, and marketers that are referred to as *non-LDC*.

**Manufactured gas:** A gas obtained by destructive distillation of coal, by the thermal decomposition of oil, or by the reaction of steam passing through a bed of heated coal or coke. Examples are coal gases, coke oven gases, producer gas, blast furnace gas, blue (water) gas, and carbureted water gas. British thermal unit content varies widely.

**Marine terminal:** Point of import or export for tankers carrying liquefied natural gas (LNG).

**Marketed production:** Gross withdrawals minus natural gas used for repressuring quantities vented and flared and less nonhydrocarbon gases removed in treating or processing operations. Includes all quantities of natural gas used in field and processing plant operations.

**Natural gas:** A gaseous mixture of hydrocarbon compounds but mostly methane. EIA measures wet natural gas and its two sources of production (associated, or dissolved, natural gas and nonassociated natural gas) and dry natural gas, which is produced from wet natural gas.

**Natural gas condensate well:** A natural gas well that produces from a natural gas reservoir containing considerable quantities of liquid hydrocarbons in the pentane and heavier range, which are generally described as *condensate*.

**Natural gas marketer:** A company that arranges purchases and sales of natural gas. Unlike pipeline companies or LDCs, a marketer does not own physical assets commonly used in the supply of natural gas, such as pipelines or storage fields. A marketer may be an affiliate of another company, such as an LDC, natural gas pipeline, or producer, but it operates independently of other segments of the company. In states with residential choice programs, marketers serve as alternative suppliers to residential users of natural gas, which is delivered by an LDC.

**Natural gas plant liquids (NGPL) production:** The extraction of natural gas plant liquid constituents such as ethane, propane, normal butane, isobutane, and natural gasoline, sometimes referred to as extraction loss. Usually reported in barrels or gallons but may be reported in cubic feet to compare with dry natural gas volumes.

**Natural gas well:** A well completed for the production of natural gas from one or more natural gas zones or reservoirs. Such wells contain no completions for the production of crude oil. EIA identifies natural gas wells using a natural gas/oil ratio (GOR) of 6,000 cf/b. Wells with a GOR greater than 6,000 are labeled natural gas wells while a GOR of 6,000 or less are labeled oil wells.

**Nominal dollars:** A measure used to express nominal price.

**Nominal price:** The price paid for a product or service at the time of the transaction. Nominal prices are those that have not been adjusted to remove the effect of changes in the purchasing power of the dollar; they reflect buying power in the year in which the transaction occurred.

**Nonhydrocarbon gases:** Typical nonhydrocarbon gases that may be present in reservoir natural gas, such as carbon dioxide, helium, hydrogen sulfide, and nitrogen.

**Nonutility power producers:** A corporation, person, agency, authority, or other legal entity or instrumentality that owns or operates facilities for electric generation and is not an electric utility. Nonutility power producers include qualifying cogenerators, qualifying small power producers, and other nonutility generators (including independent power producers). Nonutility power producers are without a designated franchised service area and do not file forms listed in the Code of Federal Regulations, Title 18, Part 141.

**Offshore reserves and production:** Unless otherwise indicated, reserves and production that are in either state or federal domains, located in the sea.

**Oil well (casinghead) gas:** Natural gas produced along with crude oil from oil wells. It contains either dissolved or associated natural gas or both. EIA identifies oil wells by using a natural gas/oil ratio (GOR) of 6,000 cf/b. Wells with a GOR of 6,000 or less are labeled oil wells, and wells with a GOR greater than 6,000 are labeled natural gas wells.

**Onsystem sales:** Sales to customers where the delivery point is a point on, or directly interconnected with, a transportation, storage, or distribution system operated by the reporting company.

**Outer Continental Shelf:** Offshore federal domain.

**Pipeline:** A continuous pipe conduit—complete with such equipment as valves, compressor stations, communications systems, and meters—for transporting natural gas or supplemental gas from one point to another, usually from a point in or beyond the producing field or processing plant to another pipeline or to points of utilization. Also refers to a company operating such facilities.

**Pipeline fuel:** Natural gas consumed in the operation of pipelines, primarily in compressors.

**Plant fuel:** Natural gas used as fuel in natural gas processing plants.

**Propane-air:** A mixture of propane and air resulting in a gaseous fuel suitable for pipeline distribution.

**Receipts:** Deliveries of fuel to an electric plant, purchases of fuel, and all revenues received by an exporter for the reported quantity exported.

**Refill season:** Typically begins in April and lasts through the end of October.

**Refinery gas:** Noncondensate gas collected in petroleum refineries.

**Renewable natural gas (RNG):** Renewable natural gas consists mostly of methane and is chemically similar to conventional natural gas. RNG can be produced by purifying biogas produced at landfills, wastewater treatment facilities, and digesters.

**Repressuring:** The injection of natural gas into oil or natural gas formations to enhance ultimate recovery.

**Residential consumption:** Natural gas used in private dwellings, including apartments, for heating, air-conditioning, cooking, water heating, and other household uses.

**Salt cavern storage field:** A subsurface storage facility that is a cavern hollowed out in either a salt bed or dome formation.

**Shale gas:** Natural gas produced from wells that are open to shale or similar fine-grained low-permeability rock formations. Shale gas is created from organic matter present within the shale reservoir. The shale formation acts as both the source and the reservoir for the natural gas.

**Storage additions (or injections):** Volumes of natural gas injected or otherwise added to underground natural gas reservoirs or liquefied natural gas storage.

**Storage withdrawals:** Total volume of natural gas withdrawn from underground storage or from liquefied natural gas storage over a specified amount of time.

**Supplemental gaseous fuel supply:** Synthetic natural gas, propane-air, coke oven gas, refinery gas, biomass gas, or air injected for British thermal unit stabilization. It also refers to manufactured gas commingled and distributed with natural gas.

**Synthetic natural gas (SNG):** A substitute for natural gas. A manufactured product, chemically similar in most respects to natural gas, resulting from the conversion or reforming of hydrocarbons that may easily be substituted for or interchanged with pipeline-quality natural gas.

**Total storage field capacity:** The maximum volume of base and working gas that can be stored in an underground storage facility in accordance with its design, which comprises the physical characteristics of the reservoir, installed equipment, and operating procedures particular to the site.

**Transmission (of natural gas):** Natural gas is physically transferred and delivered from a source or sources of supply to one or more delivery points.

**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 natural gas, and the utility is paid for the use of its pipeline to deliver the natural gas.

**Unaccounted for (natural gas):** Represents the difference between the sum of the components of natural gas supply and the sum of components of natural gas disposition, as reported by survey respondents. These differences may be due to quantities lost or to the effects of differences in company accounting systems in terms of scope and definition. A positive *unaccounted for* volume means that supply exceeds disposition by that amount. A negative *unaccounted for* volume means that supply is less than disposition. See also Balancing Item.

**Underground natural gas storage:** The use of subsurface facilities for storing natural gas that has been transferred from its original location. The facilities are usually hollowed-out salt domes, natural geological

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reservoirs (depleted oil or natural gas fields) or water-bearing sands topped by an impermeable cap rock (aquifer).

**Unit value, consumption:** Total price per specified unit, including all taxes, at the point of consumption.

**Vehicle fuel consumption:** Natural gas (compressed or liquefied) used as vehicle fuel.

**Vented natural gas:** Natural gas released into the air on the production site or at processing plants.

**Wet natural gas:** A mixture of hydrocarbon compounds and small quantities of various nonhydrocarbons existing in the gaseous phase or in solution with crude oil in porous rock formations at reservoir conditions. The principal hydrocarbons normally contained in the mixture are methane, ethane, propane, butane, and pentane. Typical nonhydrocarbon gases that may be present in reservoir natural gas are water vapor, carbon dioxide, hydrogen sulfide, nitrogen, and trace amounts of helium. Under reservoir conditions, natural gas and its associated liquefiable portions occur either in a single gaseous phase in the reservoir or in solution with crude oil and are not distinguishable at the time as separate substances.

**Working natural gas capacity:** The developed maximum capacity of natural gas in the reservoir that is in addition to the base gas.