

Glossary

Abandonment: Regulatory permission to discontinue service by removing various facilities from the transmission and distribution system or to stop transporting gas to or for specific customers or to certain areas. For instance, to discontinue storage services, well production, or gathering systems.

Affiliated Company: A company that is either directly or indirectly controlled and/or owned by another firm or holding company.

Alternate Receipt and Delivery Points: Locations other than the primary points specified in a contract at which a shipper can schedule delivery on a firm basis.

Alternative Fuel Capacity: The on-site availability of apparatus to burn fuels other than natural gas.

Associated-Dissolved Gas: Natural gas produced in association with oil, also known as casinghead gas.

Baseload: A volume of gas that serves as a constant load over a period of time.

Blanket Certificate (Authority): Permission granted by the Federal Energy Regulatory Commission (FERC) for a certificate holder to engage in an activity (such as transportation service) on a self-implementing or prior notice basis, as appropriate, without case-by-case approval from FERC.

Btu: Abbreviation for British thermal unit. The quantity of heat needed to raise the temperature of 1 pound of water by 1 degree Fahrenheit at a specified temperature and pressure (from 59 degrees Fahrenheit to 60 degrees Fahrenheit at an atmospheric pressure of 29.92 inches of mercury).

Capacity Release Market: Where natural gas shippers may offer the rights of some or all of their firm capacity in exchange for revenue credits.

Capacity Turnback: When natural gas shippers, upon expiration of their contract(s) for pipeline capacity do not renew capacity rights, in whole or in part, with the original pipeline.

Certificated Capacity: The capability of a pipeline project to move gas volumes on a given day, based on a specific set of flowing parameters (operating pressures, temperature, efficiency, and fluid properties) for the pipeline system as stated in the dockets filed (and subsequently certified) in the

application for the Certificate of Public Convenience and Necessity at the Federal Energy Regulatory Commission. Generally, the certificated capacity represents a minimum level of service that can be maintained over an extended period of time and does not always represent the maximum throughput capability of the system on any given day.

Citygate: Location where gas is delivered to a local distribution company by a pipeline transmission company.

Cogeneration: The production of steam (usually by natural gas), in conjunction with industrial operations or other non-utility gas-burning functions, which is used to power generators for the secondary production of electricity.

Coincidental Peak-Day Flow: The volume of gas that moves through a pipeline or section thereof or is delivered to a customer on the day of the year when the pipeline system handles the largest volume of gas.

Combined-Cycle Generation: System for generating electricity by use of a gas turbine or a heat recovery boiler and a steam turbine in tandem.

Commercial Service: Natural gas service to restaurants, retail stores, schools, institutions, etc.

Compressor Station: An installation located on a pipeline system and which contains engine- or turbine-driven compressors used to move natural gas through a pipeline by raising the pressure applied to the flow of gas. The capabilities of the station are defined primarily by level of installed horsepower and designed daily gas throughput capacity.

Contract Demand: The level of firm service in terms of the maximum daily and/or annual volumes of natural gas sold and/or moved by the pipeline company to the customer holding the contract. Failure of a pipeline company to provide service at the level of the contract demand specified in the contract can result in a liability for the pipeline company.

Cushion (Base) Gas: The volume of gas, including native gas, needed as a permanent inventory in a storage reservoir in order to maintain adequate reservoir pressure and deliverability rates.

Daily Average Flow: The volume of gas that moves through a section of pipe determined by dividing the total annual volume of gas that moves through a section of pipe by 365 days. Volumes are expressed in million cubic feet per day measured at a pressure of 14.73 psia and a temperature of 60 degrees Fahrenheit. For pipes that operate with bidirectional flow, the

volume used in computing the average daily flow rate is the volume associated with the direction of flowing gas on the peak day.

Deliverability: Refers to the volumes of natural gas that may be transferred at a designated point on the transportation network. The specific volume level is normally stated on a peak-day capability basis and is a function of facility (system) design, which itself is premised upon actual or estimated market demand requirements. Pipeline network deliverability in this analysis is predicated upon a summary measure of pipeline capacity at regional and/or State boundaries. Pipeline capacity is, in part, a function of the number of pipes, their diameter, compression, and operating pressure situated at the transfer point. Deliverability from storage represents a volume level that may be transferred to the pipeline network on a peak day to supplement the pipeline capacity serving the regional market.

Deliverability (from storage): The output of gas from a storage reservoir, as expressed as a rate in thousand cubic feet (Mcf) per 24 hours, at a given total volume of gas in storage with a corresponding reservoir pressure and at a given flowing pressure at the wellhead.

Design Capacity: See certificated capacity. The design capacity of pipeline sections having bidirectional flow is the capacity associated with the direction of the flow observed on the peak day.

Design Day: A 24-hour period of demand which is used as a basis for planning gas capacity and service requirements.

Downstream Pipeline (State): A pipeline (State) closer to the market area, as opposed to an upstream one, which is closer to the production area.

Federal Energy Regulatory Commission (FERC): The Federal agency with jurisdiction over natural gas pricing, wholesale electric rates, hydroelectric licensing, oil pipeline rates, and gas pipeline certification.

Enhanced Oil Recovery: Use of steam injection, most often produced by burning natural gas as a secondary or tertiary oil recovery method. Electricity cogeneration is usually a by-product of such operations.

Extraction Plant: A processing plant that is used for the separation of liquid hydrocarbons from a natural gas stream.

Firm Service: Service offered to customers (regardless of class of service) under schedules or contracts which anticipate no interruptions. The period of service may be for

only a specified part of the year as in off-peak service. Certain firm service contracts may contain clauses that permit unexpected interruption in case the supply to residential customers is threatened during an emergency.

Gathering System: A network of small pipelines which connect producing wells with a transmission system.

Gas Turbine: Power equipment of the turbine type which utilizes the gas combustion as a motive force.

Grid (Transmission) System: Natural gas pipeline system characterized by a large number of laterals or branches from the mainline that tend to form a network of integrated receipt, delivery, and pipeline interconnections operating in and serving major market areas. Similar to a local distribution company (LDC) network configuration but on a much larger scale.

Heating Degree Day: An index indicating the difference between 65 degrees Fahrenheit and the average temperature for a day, where the average temperature is the average of the day's high and low temperatures. If a day's average temperature were 45, there would be 20 degree days for the date. If the average temperature were above 65 degrees Fahrenheit, then the heating degree day would equal zero.

Industrial Service: Natural gas service to factories, mines, pulp mills, smelters, etc.

Infill Drilling: There are two types of infill drilling: (1) The drilling of additional wells in a developed field in an effort to increase total ultimate recovery; and (2) drilling a replacement well within a proration unit, after the original well has been plugged and abandoned, in order to enter a new reservoir that could not be reached or drained by recompletion.

Interruptible Service: A sales volume or pipeline capacity made available to a customer without a guarantee for delivery. "Service on an interruptible basis" means that the capacity used to provide the service is subject to a prior claim by another customer or another class of service (18 CFR 284.9(a)(3)). Gas utilities may curtail service to their customers who have interruptible service contracts to adjust to seasonal shortfalls in supply or transmission plant capacity without incurring a liability.

Interstate Pipeline: A natural gas pipeline company that is engaged in the transportation, by pipeline, of natural gas across State boundaries, and is subject to the jurisdiction of FERC under the Natural Gas Act.

Intrastate Pipeline: A natural gas pipeline company engaged in the transportation, by pipeline, of natural gas not subject to the jurisdiction of FERC under the Natural Gas Act.

Lateral: A section of natural gas pipeline that branches off from the mainline to connect with or serve a specific customer or group of customers.

LDC: Local Distribution Company. A natural gas utility company which receives gas from a mainline transmission pipeline company and distributes same to the ultimate consumer.

Line Packing: Increasing the amount of gas in the system or pipeline segment by temporarily increasing pressure to meet high demand for a short period of time. Often exercised overnight as a temporary storage medium to meet anticipated next-day peaking demands.

Liquefied Natural Gas (LNG): Natural gas that has been subjected to high pressure and very low temperatures and stored in a liquid state. It is returned to a gaseous state by the reverse process and used as a peaking fuel.

Load Balancing: Maintaining system integrity through measures which equalize pipeline (shipper) receipt volumes with delivery volumes during periods of high system usage. Withdrawal and injection operations into underground storage facilities are often used to balance load on a short-term basis.

Load Factor: The ratio of average daily deliveries to peak-day deliveries over a given time period.

Looping: Increasing capacity on a pipeline system or segment by adding another pipeline running parallel to existing lines.

Mainline (Transmission Line): The wide-diameter, often-times long-distance portion of a natural gas pipeline system, excluding laterals, located between the gathering system (production area) or gas-processing plant and other receipt points and the principal customer service area(s).

Market Center/Hub: A transfer site or system where several interstate and/or intrastate natural gas pipelines interconnect and where shippers may obtain services to manage and facilitate their routing of supplies from production areas to markets. Title transfer, temporary storage, and imbalance management are some of the services usually available at such facilities.

Marketed Production: Gross withdrawals from gas/oil wells less gas used for repressuring, quantities vented and flared, and nonhydrocarbon gases removed in treating or processing operations.

Native Gas: The volume of gas remaining in a reservoir after economic production ceases and before conversion to use as a storage site.

NGPA Section 7 Authority: Section 7 of the Natural Gas Act of 1938 requires an interstate pipeline company to justify and acquire a certificate of public need and convenience before constructing facilities to transport gas. Pipeline companies may expand or construct facilities used solely to enable this transportation service, subject to certain conditions and reporting requirements.

NGPA Section 311: Section 311 of the Natural Gas Policy Act of 1978 allows an interstate pipeline company to transport gas “on behalf of” any intrastate pipeline or local distribution company. Pipeline companies may expand or construct facilities used solely to enable this transportation service, subject to certain conditions and reporting requirements.

No-notice Service: A bundled, citygate firm service under Order 636 that allows customers to receive gas on demand to meet peak service needs subject to delivering supplies into the pipeline under a pack or draft order and without paying daily balancing and scheduling penalties.

Nonassociated Gas: Natural gas produced from gas wells that do not contain or produce oil.

Noncoincidental Peak-Day Flow: The largest volume of gas delivered to a particular customer by a pipeline company in a single day during the year.

Off-Peak Period: Period of low contract demand, such as during the summer months in northern climates but may also apply to periods as short as certain periods of a day when usage is low.

Off-Peak Service: Service made available on special schedules or contracts, but only for a specified part of the year during the off-peak periods.

Open-Access Transportation: The contract carriage delivery of nonsystem supply gas on a nondiscriminatory basis for a fee. Generally subject to transportation tariffs, which are usually on an interruptible service basis on first-come, first-serve capacity usage.

Open Season: A period (often 1 month) when a pipeline offers to accept bids from shippers and others for potential new transportation capacity. Bidders may or may not have to provide “earnest” money, depending upon the type of open season. If enough interest is shown in the announced new capacity, the pipeline will refine the proposal and prepare an application for

construction before the appropriate regulatory body for approval.

Operator: The person or firm responsible for the day-to-day operation of a plant or facility.

Optional Certificate (formerly known as Optional Expedited Certificate (OEC)): In 1987, FERC issued Order 500, which eliminated the requirement for FERC approval as to the financial “soundness” of a construction project if the pipeline company were willing to accept the market rate of return for the project.

Peak or Peak Load: The maximum demand for gas on a system during a specified interval: hour, week, month, or year.

Peak Shaving: Injection of supplemental supplies of natural gas, such as from underground storage or liquefied natural gas (LNG) facilities, into the pipeline system during periods of maximum demand. Also applies to the act of installing such facilities as a way of avoiding expanding (or building) the production-to-market capacity of the system to accommodate fully the potential maximum demand loads on the basic system.

Pipeline Sales Service: Before 1992, interstate pipeline companies provided bundled sales and transportation service at regulated rates. This bundled service was discontinued in 1993, for most customers, by Order 636, which allowed pipeline companies to sell unbundled gas at market-based rates. Order 636-A required pipeline companies to continue bundled sales service to their existing small customers at cost-based rates for a transitional 1-year period.

Psia: Pounds per square inch at atmospheric pressure.

Service Agreement: An agreement between a natural gas company and a gas purchaser or shipper specifying the service to be rendered, area to be served, maximum obligation to deliver, delivery points, delivery pressure, applicable rate schedules by reference to the tariff, effective date and term, and identification of any prior agreements being superseded.

Spot Market: A market for the buying and selling of short-term natural gas contracts, often for 30 days or less (although contracts as long as 1 to 2 years are sometimes categorized as short-term), usually on an interruptible or best-efforts basis.

Storage (Reservoir) Operating Capacity: The maximum volume of gas an underground storage reservoir can store, limited by such factors as facilities, operational procedures, confinement, and geological and engineering properties. This should include all native gas (recoverable and unrecoverable), cushion (base) gas, and working (current) gas.

System Supply: Gas supplies purchased, owned, and sold by the supplier or local distribution company to the ultimate end user. System gas is subject to FERC or State tariff and is generally sold under long-term (contract) conditions.

Throughput: Actual or estimated volume of natural gas that may be carried on a pipeline over a specified period of time.

Total Storage Capacity: The sum of working (current) gas capacity and the cushion (base) gas that must remain in the storage reservoir for purposes of pressure maintenance.

Trunkline (Transmission) System: Long-distance, wide-diameter pipeline system that generally links a major supply source with a major market area or with a major pipeline/LDC serving a market area. Trunklines tend to have only a few receipt points (usually at the beginning of its route), few delivery points or interconnections with other pipelines, and few, if any, associated lateral lines. Also see mainline.

Upstream Pipeline: A pipeline, or portion thereof, which is closer to the production area or primary receipt point for gas supplies.

Utilization Rate: Daily flow (throughput) as a percent of estimated capacity. For a segment of pipe, the average-day utilization rate equals the average-day flow divided by the estimated capacity.

Working (Current) Gas: The volume of gas in an underground storage reservoir in excess of total cushion (base) gas and which is available for delivery (withdrawal).