

Glossary of Natural Gas Market Terms

10³ m³	Sometimes pronounced ten-three-m-three or thousand cubic metres, this is the basic metric volumetric unit for gas, in place of Mcf. One thousand cubic metres equals approximately 35.3 Mcf.
Agency, Billing and Collection Service (ABC)	This service enables Gas Vendors to bill their direct purchase customers directly through Union Gas.
Aid to Construct	A charge collected in advance of construction from new customers who have agreed to fund the shortfall in the economics of a project to serve them.
AECO	The price of gas at the Alberta Energy Company storage facility located to the west of Empress.
Alliance/ Vector	A pipeline system comprised of the Alliance Pipeline, which runs from Northeastern B.C. to Joliet, Illinois (near Chicago), and the Vector Pipeline which runs from Joliet, Illinois to the interconnect with Union at Dawn. EB-2005-0520 Exhibit A1 Tab 15 Page 2 of 15 December, 2005
Avoided Costs	The marginal costs that are avoided by not producing and delivering the next unit of energy to the customer. Marginal costs (or avoided costs) include costs related to the energy commodity itself (or its generation) as well as its transmission and distribution.
Bcf	Billion cubic feet
Basis	The differential between the future or forward price for a given commodity and the cash or spot price for such commodity. It can reflect differences in time periods, product qualities or locations.
Bundled Service	A service in which the demand for natural gas at a customer delivery point is met by Union using whatever resources/functions or combination of resources/functions (e.g. transportation, storage, daily nominations) are required. Union offers bundled, semi-bundled (e.g. T-1, T-3) and unbundled (e.g. U2, U5, U7) services to its in-franchise customers.

British Thermal Unit (BTU)	The amount of heat energy necessary to raise the temperature of one pound of water one degree Fahrenheit. EB-2005-0520 Exhibit A1 Tab 15 Page 3 of 15 December, 2005
Canadian Gas Price Reporter (CGPR) Index	The CGPR is a monthly publication which provides natural gas prices or indices and other information based on transactions at various points and for various time periods as reported to CGPR by the parties entering into transactions during the previous month.
Compressor	A device used to increase the pressure in the pipeline system.
Cubic Foot	The imperial unit of measurement of natural gas volume; the amount of gas required to fill a volume of one cubic foot under stated conditions of temperature, pressure, and water vapour.
Cubic Metre	That volume of gas which at a temperature of 15 degrees Celsius and at an absolute pressure of 101.325 kilopascals occupies one cubic metre. "10 ³ m ³ " means 1,000 cubic metres.
Customer Supplied Fuel	represents compressor fuel collected from M12 and C1 storage and transportation services customers.
Daily Contract Quantity (DCQ)	The maximum amount of natural gas per day that a direct purchaser may deliver to the utility's system under the provisions of a direct purchase contract.
Dawn	Also known as the Dawn Compressor Station, Dawn is the location of Union's main compressor station. Dawn is referred to as a "hub" as it represents the point where supply, storage and transmission systems meet. A number of other pipeline systems (e.g. TCPL, Vector) are interconnected to Union's system at Dawn. Dawn is located southeast of Sarnia, Ontario.
Decatherm (Dth)	A measurement of heat equivalent to one million BTUs.
Deliverability	Deliverability is the capability of a storage reservoir or pipeline to deliver gas, at a given flowing pressure. It is usually expressed in millions of standard cubic feet per day (MMscfd) or thousands of cubic metres per day 10 ³ m ³).
Delivered supply	See spot gas.

Demand	This is the level of need for natural gas at a specific location. Examples of where this can be found are; the point of end use (a residential, commercial or industrial customer), at the supply point to a community, a takeoff point from a transmission, or at an interconnect with another pipeline system.
Demand Forecast	The demand forecast is a prediction of the total natural gas expected to be consumed in a future period. This could apply to a customer class, rate class or market.
Demand Side Management (DSM)	The active promotion of energy-conserving technologies and behaviors among gas consumers.
Design Day Requirements	Design day requirements are the expected demands by a customer at Union's design weather condition.
Direct purchase (DP)	A service whereby a customer or their agent arrange for gas supply and/or upstream transmission services directly, and arranges for a utility's distribution service to deliver gas to end-user locations.
EGD	Enbridge Gas Distribution.
Eastern Delivery Area (EDA)	TCPL's Eastern Delivery Area. Extends from a point on TransCanada's pipeline near Bowmanville, Ontario and from a point on TransCanada's North Bay Shortcut near North Bay, Ontario to a point on TransCanada's pipeline at the International Border near Philipsburg, Quebec and to a point on the pipeline system of Trans Quebec & Maritimes Pipeline Inc. near Quebec City, Quebec.
Eastern Zone Toll	TCPL toll that applies to all points in TCPL's Central Delivery Area, the Southwestern Delivery Area and the Eastern Delivery Area.
Empress	The Interconnect between NOVA and TCPL immediately east of the Alberta/Saskatchewan border.
Ex-Franchise	Customers located outside Union's franchise areas.
FT (Firm Transportation)	A firm service, pipeline companies offer for the transportation of gas on their system.
FT RAM	A service offered by TCPL which allows firm shippers to obtain credits if their FT contract is not fully utilized in any given month. The credits can be applied to reduce payments otherwise due for any IT service the shipper may have contracted for in that month.

Fuel Gas	Gas used as fuel to operate the compressors that move the gas through the pipeline. Usually expressed as a percentage of volumes transported. EB-2005-0520 Exhibit A1 Tab 15 Page 6 of 15 December, 2005
GJ (gigajoule)	See Joule. 1 GJ = 10 ⁹ J (refer to conversion table at the end of the glossary).
Gas Distributor	An entity that physically delivers gas to a consumer.
Gas Distributor Consolidated Billing (“DCB”)	A method of billing whereby the Gas Distributor issues a single bill to a consumer setting out the charges for gas distribution services and the charges for the gas commodity.
Gas Supply Commodity Rate (North)	This rate reflects the commodity cost of gas and the associated upstream transportation fuel to transport gas to the delivery area in the North in which the gas is consumed.
Gas Supply Transportation Rate (North)	This rate reflects all the costs of upstream (TCPL) transportation, the associated Dawn-Trafalgar transportation and TCPL STS services that are used to provide daily firm service to each delivery area in the North.
Gas Supply Commodity Charge (South)	This rate reflects the commodity cost of gas and the associated upstream transportation fuel to transport gas to the South.
Gas Vendor	An entity who (a) sells or offers to sell gas to a consumer, or (b) acts as the agent or broker for a seller of gas to a consumer, or (c) acts or offers to act as the agent or broker of a consumer in the purchase of gas.
Gas Vendor Consolidated Billing	A method of billing whereby the Gas Vendor issues a single bill to a consumer setting out the charges for gas distribution services and the charges for the gas commodity.
GDAR Electronic Business Transaction (EBT) Standards	The computer-based transaction mechanism for transmitting common format data among Gas Distributors and the Gas Vendors.
GDAR Service Agreement (SA)	The agreement more specifically described in section 3.2 of the GDAR that sets out certain aspects of the relationship between a Gas Distributor and a Gas Vendor.
General Service	Non-contract distribution customers served on Union’s M2, Rate 01 and Rate 10 rate schedules.

HDD	Heating degree-day is the unit of measurement for weather normalization. One heating degree-day (HDD) is a measure of the heating demand for natural gas caused by a one-degree temperature difference relative to Union's temperature benchmark of 18°C. The number of HDDs, on one day, is determined by subtracting the mean daily temperature for the day from the benchmark temperature. For example, if the mean daily temperature is 11°C, then there are 7 HDDs (i.e. 18-11) on that day. If the mean daily temperature is above 18°C, there are no HDDs.
Historical Year	The most recently completed year for which actual data is provided.
Hub	An interchange where multiple pipelines interconnect and form a market center.
IT	Interruptible transportation service available from TCPL.
In-Franchise	Customers inside Union's franchise areas.
Independent Electricity System Operator (IESO)	An independent entity in Ontario charged with operating the wholesale electricity market.
Independent Power Producer (IPP)	A non-utility power generating entity, that typically sells the power it generates to electric utilities at wholesale prices.
Joule (J)	The metric unit of energy.
Leave to Construct Application	This is an application to the Ontario Energy Board for approval to construct a hydrocarbon pipeline
Line Pack	Inventory of gas in a pipeline, or in a gas distribution system.
Load Balancing	The efforts of a utility to meet its bundled customer requirements in the most economic manner on a daily or seasonal basis. It involves balancing the gas supply to meet total demands by using storage and other peak supply sources (e.g. spot gas) curtailment of interruptible demands, and diversions from one delivery point to another.
Load Duration Profile/Curve	A curve of loads, plotted in descending order of magnitude, against time intervals for a specified period. The curve indicates the period of time load was above a certain magnitude. Load duration

	curves are profiles of system demand that can be drawn for specified periods of time (e.g., daily, monthly, yearly). The coordinates may be absolute quantities or percentages.
Loop	Loop relates to the action of installing a pipeline section parallel to an existing pipeline. The purpose of this additional facility is to increase system capacity, increase pressure or some combination of the two.
Mcf	Million cubic feet.
m³	See Cubic metre (also refer to conversion table at the end of the glossary).
MMbtu	Million British thermal units (refer to conversion table at the end of the glossary).
Main	Pipe used to carry natural gas from one point to another. As contrasted with service gas pipes, mains usually carry natural gas in large volume for general or collective use.
Market Charge	A fixed lump sum charge to be collected from each customer who connects to a specified pipeline project within a predetermined time period. The charge does not have a declining balance over time. Customers who connect in later years pay the same charge as customers who connect in earlier years.
Market Strip (one-year strip)	The average future price of gas over a specified term.
Measurement Canada	Measurement Canada sets the rules of the marketplace with respect to trade measurement and ensures that they are uniformly implemented and respected through the administration of the Weights and Measures Act and the Electricity and Gas Inspection Act. Measurement Canada's programs and services include evaluating and certifying the accuracy of measuring equipment, investigating complaints received from businesses and consumers who feel they have not received accurate measurement, and certifying measurement standards. They also authorize companies to verify measuring equipment on our behalf and assess the performance of these companies.

Meter	An instrument for measuring and indicating, or recording, the volume of natural gas that has passed through it.
Normal Weather	Normal weather is used to calculate normalized average consumption, which is a key element in determining the demand forecast for natural gas. Normal weather is the term used to describe the most likely weather, or more accurately, heating degree-days that can be expected in the long run. Normal weather can be determined by various methods. The current method being used by Union to define normal weather is the 20-year declining trend.
North	Refers to Union's Northern and Eastern operations area.
Northern and Eastern Operations Area	The sections of Union's system that spans north of Toronto to the Manitoba border and east of Toronto to Cornwall.
NYMEX Strip	The simultaneous purchase (or sale) of futures positions in consecutive months posted by the New York Mercantile Exchange (NYMEX). The average of the prices for the futures contracts bought (or sold) is the price level of the hedge. A six-month strip, for example, consists of an equal number of futures contracts for each of six consecutive contract months. Also known as a calendar strip.
Obligated direct purchase deliveries	Direct purchase customers have an obligation to deliver on a daily basis a certain amount to Union (i.e. their obligated DCQ). Union counts on these deliveries arriving at a specified location in determining the facilities required needed to meet the design day demand.
Panhandle	The Panhandle Eastern Pipeline system that runs from the U.S. mid-continent (Kansas, Texas, Oklahoma) to Michigan and Southwestern Ontario.
Parkway	Parkway is located at the east end of Union's Dawn Trafalgar system. At this location, Union connects with Enbridge and TCPL. Facilities at this site include custody transfer measurement to Enbridge and TCPL. Compression is also located here to facilitate the movement of volumes between Union and TCPL.
Parkway Deliverability	Total planned deliverability at Parkway (including volumes received from TCPL) on design day.

Peak Day	The 24-hour period of greatest total gas sendout.
Peak day requirement	Also referenced as Design Day requirements.
PJ (petajoule)	See Joule. 1 PJ = 10 ¹⁵ J.
Quarterly Rate Adjustment Mechanism (QRAM)	Quarterly Rate Adjustment Mechanism, a streamlined process for obtaining approvals of changes to Union's commodity rates.
Rate Rider	A temporary surcharge added to base annual rates for the purpose of recovering, within a given period, approved cost variances from forecast costs, in rates.
STS	See Storage Transportation Service.
Sales Service	Otherwise referred to as system gas supply. Refers to the sale of the commodity to in-franchise customers by Union.
Service	The pipe that carries natural gas from the main to a customer meter.
Service Transaction Requests-(STRs)	A written authorization, unless otherwise provided in GDAR, that initiates a change from a current service provision to an alternative service provision.
South	Refers to Union's Southern operations area.
Southern Operations Area	the southern section of Union's system that spans as far west as Windsor and as far east as Parkway.
Split Billing	A method of billing whereby the Gas Distributor issues a bill to a consumer setting out the charges for gas distribution services, and the Gas Vendor issues a bill to a consumer setting out the charges for the gas commodity.
Spot gas	Gas supplies that are not underpinned by upstream transportation capacities and which are purchased for delivery at a specific location (e.g. Dawn).
Storage Transportation Service (STS)	A service offered by TCPL that allows for the movement of gas from a specified delivery area in the North to Parkway (summer "injections") and from Parkway to a specified delivery area (winter "withdrawals") in the North.

Stress Corrosion Cracking (SCC)	SCC is a particular type of cracking that steel pipelines that operate at higher stress levels, and have the right combination of environmental conditions at the pipe surface, are potentially susceptible to.
System Capacity	This is the measure of the capability of the pipeline system. It is expressed under a set of pressure conditions and shows the system's ability to meet a set of demands specific locations.
TCPL	TransCanada Pipelines
TCPL Turnback	An option given to Direct Purchase customers to return Union's TCPL FT contracted capacity, used to serve their demand, back to Union. Union then de-contracts an equivalent amount of FT capacity with TCPL.
Therm	A measurement of heat equivalent to 100,000 BTUs.
Throughput	The total annual amount of natural gas transported through Union's transmission system.
Toll	A charge levied by a pipeline company.
Transportation Service (T-Service)	The gas transportation service offered by a pipeline company or distributor to transport gas owned by others for a toll.
Trunkline	A pipeline system that runs from the Gulf of Mexico to the border of Indiana and Michigan.
UDC (Unabsorbed demand charge)	Occurs when gas is transported on an upstream transmission pipeline with demand charges included in its toll, at less than 100% load factor.
Unaccounted for Gas (UFG)	The difference between the total gas available from all sources, and the total gas accounted for as delivery, net interchange, and company use. This difference includes leakage or other actual losses, discrepancies due to meter inaccuracies, variations of temperature and/or pressure, and other variants, particularly due to measurements being made at different times and at different points on the system.
Unbundled Service	A service in which the demand for natural gas at a customer delivery point is met by the level of separate services and functions (e.g. transportation, storage space, storage injection/withdrawal, daily

	nominations) contracted to be available.
Vertical slice	A methodology that was approved by the Board in its RP-1999-0017 Decision to be used by Union to proportionately allocate upstream transportation capacity to its customers in the Southern Operations area who elect to begin direct purchase.
WACOG	Weighted average cost of gas.
Winter Peaking Service (WPS)	Winter Peaking Service is one of the non-facility options Union uses to meet its system demands. Volumes will be delivered to Union for a specified maximum number of days at Union's call. This service would be provided by a third party who agrees to deliver the volumes on the days Union nominates them.
Working Capacity	The working capacity is the total volume of gas injected into a storage reservoir in excess of the cushion gas. This is the total maximum volume of gas available for delivery during any injection-withdrawal cycle.