

## Overview

For over three decades, OPIS has been a news and pricing leader in the downstream refined products marketplace. We have served customers throughout the many industry segments – traders, suppliers, commercial end-users, wholesalers and retailers – with up-to-the minute, award-winning news, analysis and pricing that appears in our many published reports and on-line services.

In that time, OPIS has become the only provider of U.S. spot, rack and retail prices – giving us a complete picture of the marketplace that is rivaled by no other petroleum information supplier.

OPIS editors collectively have more than 250 years experience covering petroleum markets. Our editors know that our numbers are commonly referenced by the industry, but we remain at arms' length. OPIS does not invest in oil companies, speculate on oil prices or accept special favors.

OPIS methodologies are developed after substantial consultation with the stakeholder community, are in-line with market realities and are regularly reviewed by customers and editors on a quarterly basis.

Market data is collected by editors via telephone calls, e-mails, instant messaging and electronic transfer of back office deal sheets. Market data must be provided to OPIS Editors on the day the market is assessed or it will not be considered in the daily assessment.

Editors undergo rigorous internal market training and supervision before assessing markets as do “backup” editors who may be called on to fill in for a particular market’s primary editor. Editors’ market calls are internally reviewed daily prior to publication by a supervisory editor who checks their accuracy and adherence to OPIS methodology.

OPIS Editors always search for the most complete picture of market activity in their assessments. However, with some products and in some markets the amount of transactional data is much less comprehensive. In such case, OPIS Editors are trained to use bid/ask ranges to set highs and lows. Highest bid and lowest offer may set the parameters of these ranges. In some cases, historically demonstrated mathematical formulae may be applied to calculate the differential value of an illiquid product relative to a more liquid product.

In some markets and with some products, one or more market sources may provide the majority of market data used by the OPIS Editor in assessing the market’s value. It is OPIS’ policy and methodology that such

price discovery, while not as desirable as a variety of sources for market data, is still valid for the purposes of setting a market value in the absence of any other data.

OPIS conducts quarterly spot methodology reviews during which our market editors consult with stakeholders to ensure our methodologies reflect current market realities and are as useful and relevant as they can be. These spot methodology reviews are in addition to our ongoing and constant examination of our methodologies that may result in improvements in our processes and practices.

Both quarterly and as-needed methodology changes involve a robust polling of the marketplace to ensure all points of view are considered prior to any changes being considered or made.

OPIS spot market editors reach out to stakeholders through a variety of communication channels including e-mail, telephone and instant messaging to garner input on any contemplated methodology changes. During quarterly spot methodology reviews, all current methodology language is reviewed with stakeholders to ascertain if any improvements or revisions need to be made.

Based on the input received, OPIS senior editorial leadership will decide whether to accept or reject suggestions made by stakeholders for methodology changes.

Once a spot methodology change is contemplated, OPIS reaches out to stakeholders in the form of a formal letter delivered via email soliciting feedback on the change. Feedback may be given via post, email or telephone and the opportunity to comment on any contemplated spot methodology change is open for no less than two (2) weeks and generally not more than six (6) weeks.

In the case of methodology additions, a draft notice is sent out to customers with a deadline for comments set at a minimum of two (2) weeks. OPIS will publish stakeholder comments received with our responses regarding proposed methodology changes on our website and will respect commenter confidentiality when requested.

Methodologies are reviewed for relevance at least quarterly or when a material change is observed. A “material” change is defined as an alteration to the typical market activity brought on by either regulatory change or market supply/demand dynamics that alters, among other things, the assessed spot product’s

typical volume, mode of transportation, commonly used nomenclature, chemical specification, trade liquidity or trading day hours.

In each of OPIS' spot methodologies, the timeframe for accepting data submissions for inclusion into our spot market assessments is set to be as accurate and reflective of market behavior as is possible given our publication deadlines.

In some markets, the timeframe available for data submissions may be longer or shorter than in other markets in order to reflect the unique nature of the spot markets being assessed.

It is OPIS's firm policy that all submitters of spot market data or intelligence must act in good faith with OPIS and its subscribers by disclosing only truthful and complete data relevant and pertaining to our spot market coverage. OPIS will not accept any data submissions resulting from inter-affiliate transactions. Any submitter found to be willfully submitting incomplete or untruthful data will be excluded from submitting data to OPIS spot market assessments. In addition, OPIS may at its discretion report the suspected attempt at contributing knowingly false data to the submitter's company and/or immediate supervisor.

For questions and/or feedback please contact OPIS Vice President of Strategic Content, Steve Tan at [steve.tan@ihsmarket.com](mailto:steve.tan@ihsmarket.com).

This document explains our methodology for price collection at all levels and the steps we take to ensure data integrity and accuracy.

## OPIS Spot Price Customer Bill of Rights

Every spot price editor at Oil Price Information Service understands that his or her top priority is calling market assessments fairly. Our methodologies are crafted after careful consultation with our customers and applied by our editors to ensure maximum transparency and accuracy.

Still, we understand there may be times when spot price customers wish to question, dispute or comment on a price assessment and/or our methodologies. As a valued OPIS spot price customer, you have the right to: a prompt reply to any inquiry regarding price assessments and/or methodology within two trading days

a full consideration by senior OPIS spot market personnel of any request for a correction or adjustment of a price assessment as well as any suggested changes to OPIS spot price methodology and complete confidentiality.

You can fill out our online comment form to let us know if you have a question, complaint, compliment or comment about one of our spot assessments.

The appropriate OPIS personnel will reply to complaints with two (2) spot trading days via email. This reply may or may not be a resolution of the complaint but it will acknowledge receipt of the complaint and assure the complainant that he or she can expect an answer in a timely manner.

If after receiving OPIS' answer to the complaint, a complainant wishes to appeal OPIS' decision, he or she has the right to seek recourse with an independent third party arbiter appointed by OPIS.

[Go here to view OPIS' Spot Price Assessment Methodology Commentary.](#)

## Quality and Integrity of Spot Price Methodology

OPIS publishes its market assessment methodology in full on this website and in abbreviated form in its nightly reports. The methodology is written in clear, easy-to-understand language and is fully available to the public and does not require a user name or password for access. Details of each product assessment's methodology are below.

## Reliable, Indicative and Distortion-free

OPIS' overarching strategic goal continues to be that it is recognized as a widely accepted fuel price benchmark for supply contracts and competitive positioning. OPIS is relied on as a trusted benchmark because, based on its published methodology and internal policies and practices, OPIS can provide assurance it remains completely unbiased and independent. OPIS has no stake in fuel transactions, is not funded by oil industry initiatives, and strictly adheres to antitrust guidelines determined by independent legal counsel.

OPIS does not discriminate between reporting parties that are in good standing and have demonstrated a commitment and reputation for truthful and accurate price discovery when calculating its market assessments.

Criteria and Procedures

OPIS market assessors follow the marketplace throughout a full day of trading by constant communication with designated and approved traders and brokers to discover done deals, bids and offers. This full day methodology requires OPIS market assessors to be in contact with active marketplace participants during every trading day.

The OPIS full day methodology is applied to all of its market assessments with the exception of Europe LPG which utilizes a “market window” to capture deal activity. This window is described fully in the Europe LPG methodology. This “market window” approach to assessing the Europe LPG is a reflection of the preference of the market participants as documented in OPIS’ electronic log of customer feedback and input and reflects the unique nature of the market’s behavior.

OPIS market assessors communicate with market participants via electronic instant messaging (e.g., ICE IM, CME Pivot, AIM), email and telephone communication.

Additionally, OPIS market assessors receive deal sheets from active market participants detailing their market activity for the day.

Only market data that fits OPIS methodology is used in assessing ranges for OPIS spot products. This includes restrictions on the timing of the market activity reports and the volume of product being traded as well as other factors as enumerated extensively by individual commodity, and made publicly available.

Preference for OPIS market assessments is done deals. However, in the absence of done deals, OPIS market assessors use confirmed bids and offers to set ranges for market assessments. Highest bid and lowest offer are used by OPIS market assessors to set ranges in the absence of done deals.

In very illiquid markets, formulations are used to calculate values of derivatives of more liquid products based on historic market behavior. These formulations are set based on market participant feedback and approval. OPIS supervisors routinely review market assessors’ judgments throughout the trading day and prior to publication of the assessment. Additionally, OPIS supervisors review any market data not used in the assessment and the reasons they were not used.

Units of measure referenced in OPIS market assessments vary depending on the standard measurements used by the commodity marketplace being followed (e.g., refined products are assessed in US dollars per barrel while renewable biofuels such as ethanol are assessed in US dollars per gallon).

## Consistency Between Assessors

Each market OPIS assesses has three fully trained market editors assigned to it. Each of these market editors is fully versed in the latest methodology, market participants and market intelligence available for that market. In the event the primary market editor is not available to assess his or her market, the secondary editor is fully capable of stepping in to assess the market. Additionally, a third level of redundancy in editorial continuity is built in. All OPIS data is thoroughly archived and backed up by information technology systems and hardware on- and off-site.

New OPIS market assessors undergo apprenticeship training in OPIS methodology and are required to observe closely as veteran market assessors assess markets for a period of no less than four (4) weeks prior to assessing those markets themselves.

Additionally, OPIS market assessors report to and are supervised by a core group of veteran OPIS senior editors who ensure OPIS methodology and defined practices and procedures for assessing markets are consistently followed.

## Relative Importance of Types of Data

OPIS market editors give all due priority to concluded transactions when making market assessments with the exception of market trading days in which an exceptional event or anomaly occurs just prior to OPIS' deadline for publishing market assessments. However, all price assessments that deviate from OPIS' prioritization policy for transactional data require the consultation and prior approval of a supervisory editor.

In the case of illiquid markets where transaction volume is light or non-existent, editors draw upon bids and offers and other market intelligence to set ranges. In some cases, assessments are made based on historically demonstrable formulaic relationships to more liquid products that are reviewed regularly with the marketplace to maintain their relevance.

## Notional or Illiquid Markets

In the absence of done deals, OPIS market assessors can set ranges for products in somewhat illiquid markets based on bids and offers heard in the marketplace. In such cases, OPIS market assessors use a highest bid/lowest offer methodology.

Some OPIS market assessments are “notional values” meaning the product markets being assessed do not typically feature daily activity such as done deals, bids or offers. Instead, these markets are understood by the marketplace, OPIS customers and OPIS market assessors as formulations referring back to a “parent”, more liquid product based on historical and logical pricing relationships affected by known transportation, storage or handling costs.

## Timeliness of Data Submissions

OPIS market assessors track spot markets on a full-day basis and OPIS’ daily ranges reflect confirmed trades by timing, volume, product and location each day.

“Typical” trading hours extend from 9:00 a.m. to 5:15 p.m. Eastern Time (6:00 a.m. to 2:15 p.m. Pacific Time), with the exception of the U.S. Atlantic Coast, where trading hours extend from 8:00 a.m. to 5:15 p.m. Eastern Time). Deals that are received outside those hours are reviewed, evaluated and independently approved for consideration in our full-day ranges. In order to meet publication deadlines, OPIS reserves the right to not accept deals as part of the final day’s product ranges if that information is sent to/received by OPIS after 5:15 p.m. (2:15 p.m. Pacific Time).

OPIS market assessors sample on a daily basis a broad cross-section of refiners, traders, marketers, brokers and end users active in buying, selling or trading physical barrels. OPIS policies and practices require market assessors to cast a wide net to capture as many transactions as possible in arriving at OPIS day-to-day price assessments of spot market values. OPIS market assessors take an “arm’s length” approach to covering the market.

OPIS daily spot market assessments include information obtained from “back office deal logs” sent to OPIS as part of its daily market price discovery. The information highlights actual transactions during the day, including price, volume, product, timing and counter party. OPIS market assessors compare the end-of-the-day deal logs

with our confirmed deals through the day to ensure OPIS does not duplicate information. OPIS confirms deals via constant communication with traders and brokers in the marketplace.

## Bulk of Data from One or More Sources

OPIS takes into account in its daily full-day price assessments market data from a variety of approved reporting entities. The volume of data coming from any single entity on any given day can vary, depending on that entities activity (buying or selling needs) in the marketplace.

OPIS gives equal weight to all market data submitted and deals confirmed based on our published methodology. To ensure consistency and integrity, all deals are weighed equally, without respect to any single data provider constituting a significant proportion of the total data.

OPIS requires its market assessors to conduct a broad canvass of the market each day so that OPIS is not “submitter dependent” on any one source for any single portion of data.

Market liquidity varies by individual regions from day to day with pipeline scheduling days typically reflecting high volume days.

## Criteria for Excluding Data

OPIS adheres to its methodology language first and foremost. Any data that does not conform to the methodology’s definitions regarding timing, size, specification, volume or verifiability are not included in OPIS’s market assessments.

All data exclusions must be reviewed and approved by an OPIS supervisory editor.

Additionally, OPIS market assessors reserve the right to exclude market data received that either: 1) cannot be repeated in the marketplace, 2) cannot be confirmed in the marketplace by counter-parties or independent market observers and/or 3) comes from a source that is unidentifiable and/or unverifiable as a “bona fide” source of market data.

## Rationale for Methodology Adoption

All OPIS market assessments follow methodologies reflective of the market’s actual behavior with regard to timing of trading, specifications of product, location of trading, and historically established relationships between products.



OPIS methodologies are carefully crafted through market participant consensus and are designed to be inclusive of all market data that fits OPIS published methodology parameters, including restrictions for inclusion of any market data that does not fit those same parameters.

The timeframes in which products are assessed are those requested by the market participants and vary from product to product.

OPIS market assessments commonly use the terms “prompt” and “any” to describe the timing of product delivery. Definition of timeframes for these terms varies from market to market and from product to product. In general, however, “prompt” refers to product expected to make delivery within a week while “any” refers to product expected to make delivery after a week’s time but before the end of a month.

## Procedures for Internal Review and Approval

OPIS methodology is version controlled and constantly scrutinized for clarity, relevance and comprehensiveness by market assessors and senior editors. It is also reviewed and discussed regularly during weekly spot market editors’ meetings. Records of these meetings, subjects covered and market assessors in attendance are kept in a central electronic file.

OPIS methodology language and any proposed changes are drafted by market assessors and/or senior editors and circulated for review by all other market assessors and senior editors involved in the market(s) and product(s) addressed by the methodology. All proposed changes are version-controlled and require approval by the Director of Content Development prior to initiating external review.

Additionally, mandatory quarterly reviews of all OPIS methodology are conducted and documented by relevant OPIS market assessors and senior editors to ensure clarity, accuracy and relevance. Records of these quarterly methodology reviews, market participants polled and their feedback received are kept in a central electronic file.

## Procedures for External Review and Approval

OPIS methodologies are developed after substantial consultation with the stakeholder community, are in-line with market realities and are regularly reviewed by customers and editors on a quarterly basis.

Whenever an OPIS methodology is being altered, stakeholders in the product market affected are consulted via a two-step process:

key stakeholders are asked to review an exposure draft of the proposed methodology (or change to methodology) and given adequate time (two to four weeks if the change is deemed “minor” and four to six weeks if the change is deemed “major”) to respond in writing with feedback and suggest changes, etc. after key stakeholders are thus polled and changes are either accepted or rejected, the proposed methodology (or change to methodology) is circulated via email to all OPIS customers who use (or would likely use) the market assessment. Thirty days are given for feedback and any suggested changes are given full consideration by senior editors and market assessors.

**Reasons for rejecting stakeholder feedback might include, but are not limited to:**

- suggested changes would tend to make market discovery less transparent
- suggested changes would exclude full market participation by otherwise bona fide market participants under the parameters of the methodology
- suggested changes would unfairly favour one market participant or class of trade over another
- suggested changes would limit the utility of the market assessment
- suggested changes would distort the true functioning of the market assessment

Additionally, OPIS reserves the right to reject any feedback it deems to be non-constructive or inherently untenable.

## Changes to Methodology

OPIS conducts quarterly spot methodology reviews during which our market editors consult with stakeholders to ensure our methodologies reflect current market realities and are as useful and relevant as they can be.

These spot methodology reviews are in addition to our ongoing and constant examination of our methodologies that may result in improvements in our processes and practices.

Both quarterly and as-needed methodology changes involve a robust polling of the marketplace to ensure all points of view are considered prior to any changes being considered or made.

During quarterly spot methodology reviews, all current methodology language is reviewed with stakeholders to ascertain if any improvements or revisions need to be made.

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In the case of methodology additions, a draft notice is sent out to customers with a deadline for comments set at a minimum of two (2) weeks. OPIS will publish stakeholder comments received with our responses regarding proposed methodology changes on our website and will respect commenter confidentiality as requested.

## Anti-Trust Policy

For over 30 years clients have trusted OPIS to adhere to strict anti-trust guidelines in collecting and distributing sensitive oil pricing data. With oil prices under increasing scrutiny, OPIS recognizes that suppliers cannot afford even the slightest perception of price sharing or price signaling. That's why OPIS does not provide price notification and messaging services for suppliers and embargoes release of all rack pricing data until after the changes become effective to customers.

## OPIS Methodology Preface

This statement of methodology for OPIS North American natural gas price indexes and assessments reflects core principles that long have provided the foundation for OPIS price reporting in North American energy markets. It also includes detailed information on the submission of price data from market participants, the formation of indexes and assessments, and the publication of index-related information, including volumes and deal counts.

If you have questions concerning reporting to OPIS or our statement of methodology, or would like to discuss any gas price reporting issues, please call or e-mail one of our editors: 888-301-2645 or

[prices@opisnet.com](mailto:prices@opisnet.com)

## What Do the OPIS Natural Gas Spot Market Indexes Represent or Reflect?

The spot/cash market prices that appear in the OPIS publications denote the market value of natural gas in the wholesale market for a particular location, over a specified period of time. Most of our indexes are delivered to an interstate or an intrastate pipeline, but some are delivered to a “citygate” location that is typically located farther downstream along a particular pipeline system.

Our bidweek indexes represent the price of gas that will flow every day during the forthcoming calendar month (“baseload” transactions), while our Daily prices measure gas flows up to and including the next trading day (“day-ahead”).

For more information on ‘Time Periods’ reflected, please see the section entitled “Over What Time Period Does OPIS Collect Data?”

The data upon which we derive our indexes are a combination of negotiated fixed priced transactions, physical and financial basis trades (during bidweek only) that are the product of transactions between non-affiliated counterparties. OPIS receives data from companies across numerous sectors of the natural gas industry. This includes companies who produce, market, transport, store, distribute, buy, sell, transact, and consume natural gas.

## Over What Time Period Does OPIS Collect Price Data?

### **For Daily**

Natural gas that is traded for “day-ahead” flow. Nominations for “day-ahead” flow must be made by the nominating party by 12:30p.m. Eastern time on the calendar day one day before the nominated gas is scheduled to start flowing in order to be included in our Daily indexes.

In most cases, OPIS’s ‘Daily indexes’ capture gas flows for the next calendar day. For example, day-ahead gas that trades on a Monday for that next day (Tuesday) would comprise the indexes that appear in that next Tuesday edition of the OPIS Daily Gas Price Index. On Fridays, gas typically trades for Saturday,

Sunday, and Monday flow, so the prices that appear in our Monday edition would include gas traded on Friday for all three of those days. If that Monday were a holiday, then we would publish daily prices on Tuesday, and that edition of the OPIS Daily Gas Price Index would include gas traded on Friday for Saturday through Tuesday delivery. The same concept applies when a holiday falls in the middle of a particular week. If, for example, Wednesday were a holiday, then that Thursday edition of the OPIS Daily Gas Price Index would include gas traded on Tuesday for Wednesday and Thursday delivery.

## **For Bidweek (Monthly)**

Monthly bidweek data include transactions done at the end of each month for gas to be delivered for the entire following month. A five-day bidweek trading period is defined according to the expiration day of each Nymex futures contract. Specifically, it includes the two business days prior to the day of expiration, the day of expiration, and the two business days following the expiration date.

If you have questions about which days comprise of our indexes, please call us at 301-287-2645.

## **Indications of Volume of Trading and Averages**

OPIS publishes volumes along with the ranges and averages of our indexes, which as described later in this document are volumetric weighted averages. For both the daily series that appears in OPIS Daily Gas Price Index and the bidweek series that appears in the OPIS Bidweek Survey, the volume column indicates the sum of the volume expressed in thousand MMBtu's per day.

## **About Volumes**

We attempt to collect and include in our index calculations reports of both the buy and sell side of an individual transaction. The figures published in the volume column of our price table represent the volume used in the index calculation process and should not be construed as the volume transacted or flowing at that location. Theoretically, if we were to receive perfect data for a given location, and had received reports from every buyer and every seller, our volume figure would be exactly twice the volume of gas transacted at that particular location. We understand that other publishing companies tracking the natural gas marketplace report volume in a similar manner.

## Forwards Market

The daily forward assessments are fundamentally different from the daily and monthly bidweek indexes. They represent a value at the close of the market rather than a mathematically derived price representing market activity over a defined period of time, like the daily and monthly bidweek indexes. The purpose of the daily forward assessments is to increase transparency in forward markets and to provide the market with independently derived values as a tool for mark-to-market and general valuation purposes.

## How Does OPIS Convert Price Reports Into Published Indexes?

We first determine which of our published indexes each price report applies. Then we review the data to ensure there are no obvious reporting errors such as typos or missing data, and that the data are for gas flows for the same period that our indexes intend to measure. We may exclude price data from our survey that doesn't appear reflective of the market, or we may flag them for further investigation. After determining the data to be considered in each of the individual indexes, OPIS then examines these datasets individually to identify statistical outliers and irregular data.

## What Are Outliers, Or “Irregular” Data?

At times our prices report may receive price outliers, or “irregular data,” that may need to be excluded from the datasets, in order to preserve the integrity and accuracy of our published spot market prices.

Irregular data may be either price or volume levels that are not confirmed by another source, or transactions that do not meet the reporting guidelines we have listed throughout this methodology. Reports that were flagged in the initial processing of the data are reviewed for their appropriateness, applicability, and reasonableness, and may be excluded at the discretion of the editor.

## How Does OPIS Calculate The Published Indexes?

Once we have removed any irregular, inappropriate or non-applicable transactions from our database, we can then calculate the index for each of our locations, which we do using a weighted average.

### Weighted Average:

The weighted average will be defined as

$$\bar{X}^* = \frac{\sum_{i=1}^N X_i V_i}{V}$$

Where  $N$  = the number of deals for the market in ALL DEALS,  $x_i$  = The price of each deal in that market,  $v_i$  = The volume for each deal in the market, and  $V$  = The total volume of all deals in the market.

## Absolute Ranges:

Low = the lowest price in ALL DEALS for that market

High = the highest price in ALL DEALS in for that market

For each market, we will then take a subset of ALL DEALS by excluding any deal not between the (Weighted Average) +/- (2 \* STDEV(PRICES)) where STDEV is the sample formula of standard deviation (the same as what excel would use):

$$STDEV = \sqrt{\left(\frac{1}{N-1}\right) \sum_{i=1}^N (x_i - \bar{x})^2}$$

Where  $N$  = the number of deals for that market,  $x_i$  = The price of each deal in that market, and  $\bar{x}$  = The average (not weighted) of all the prices in the market

We will call this subset of ALL DEALS: COMMON DEALS NSTDEV

## Common Ranges (Normal Standard Deviation):

Low = the lowest price in COMMON DEALS NSTDEV for that market

High = the highest price in COMMON DEALS NSTDEV in for that market

For each market, we will then take a subset of ALL DEALS by excluding any deal not between the

(Weighted Average) +/- (2 \* STDEV(PRICES)) where WTSTDEV is the weighted standard deviation.

$$WTSTDEV = \sqrt{\frac{\sum_{i=1}^N W_i (x_i - \bar{x}^*)^2}{\left(\frac{M-1}{M}\right) \sum_{i=1}^N W_i}}$$

Where N=the number of deals for that market, M=The number of deals with non-zero volumes in the market,  $w_i$  =The volume for each deal in the market,  $x_i$  =The price of each deal in that market, and  $\bar{x}^*$  =The weighted average of all the prices in the market (using volume as weight)

We will call this subset of ALL DEALS: COMMON DEALS WTSTDEV

Common Ranges (Weighted Standard Deviation):

Low = the lowest price in COMMON DEALS WTSTDEV for that market

High = the highest price in COMMON DEALS WTSTDEV in for that market

## Error Corrections

OPIS will only correct errors within three (3) business days of the posting of the original index. Although the ultimate decision will be made after taking into account factors such as the nature of the error and who was responsible, it would be unlikely that OPIS would issue a correction unless the error results in a material change to the index posting.

## Providing Data to OPIS

OPIS accepts any and all price related data that a participant would like to report to us, however OPIS requests that data providers adhere to the following guidelines, which improves the overall quality of the natural gas price survey data and also complies with the FERC's July 2003 policy statement:

- Report all negotiated, fixed-price, non-affiliate natural gas transactions for both daily "day-ahead" and monthly (bidweek) "baseload" delivery.



- Daily data include all fixed price deals done each business day (where a business day is any day the IntercontinentalExchange offers trading of daily/next day physical gas) before the 12:30 p.m. Eastern pipeline nomination deadline for gas to flow the next day or over the weekend, as is the case on Fridays.
- Monthly bidweek data include transactions done at the end of each month for gas to be delivered for the entire following month. A five-day bidweek trading period is defined according to the expiration day of each Nymex futures contract. It typically includes the two business days prior to the day of expiration, the day of expiration, and the two business days following the expiration date. If you have questions about which days comprise bidweek, please give us a call at 301-287-2645.
- Nymex physical or financial basis deals done during bidweek should be denoted as such and included.

Each transaction should be listed separately and should include the following:

- Deal number
- Trading location
- Trade/transaction date
- Start flow date
- End flow date (may be the same as beginning flow date)
- Price (\$/MMBtu or C\$/Gigajoule for Canadian trading locations)
- Volume

Please provide data from a central, mid- or back-office reporting source within the company.

- Data providers should make all reasonable efforts to send price data to [prices@opisnet.com](mailto:prices@opisnet.com) by 4:00 p.m. Eastern on the business day before the beginning flow date of the data being submitted. Data submitted after 4:00 p.m. Eastern will be included at the editor's discretion. Because we understand that data providers may be submitting data to more than one index provider, OPIS does not impose any specific file format or specificity pertaining to how the data are arranged within the file.
- List the contact information of data provider representatives that can answer questions about the data.
- If the data provider becomes aware of errors or omissions to submitted data within three (3) business days, the data provider should make reasonable efforts to notify OPIS of those errors or omissions. To submit a correction, please e-mail [prices@opisnet.com](mailto:prices@opisnet.com) with a corrected data submission in the same or similar format as the original submission.

- OPIS is willing to enter into an agreement protecting the confidential nature of the price data. For a copy of this document, or for more information on the data submission process, please contact us at 888-301-2645 or [prices@opisnet.com](mailto:prices@opisnet.com)

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## Pipeline Point Index Descriptions:

OPIS recognizes the need for stability in the description and definition of its pricing point locations. At the same time, market dynamics warrant the periodic addition, deletion or change in pricing points. OPIS generally, will not delete or change the description of a pricing point with less than 60 days' notice, although it will consider adding or changing a point on shorter notice if market conditions require faster action.

Price points common to both surveys and any differences in daily and monthly pricing methodology are noted in the descriptions.

Points are arranged within geographic regions: East, Gulf Coast/Texas, Midcontinent/Central, West/Rockies, and Canada.

## EAST:

### **Algonquin, Citygates**

Deliveries into Algonquin Gas Transmission from Texas Eastern Transmission at the Lambertville and Hanover, N.J., interconnects; from Transcontinental Gas Pipe Line at the Centerville, N.J., interconnect; from Columbia Gas Transmission at the Hanover, N.J., and Ramapo, N.Y., interconnects; from Millennium Pipeline at Ramapo, N.Y.; from Tennessee Gas Pipeline at the Mahwah, N.J., Cheshire, Conn., and Mendon, Mass., interconnects; from Iroquois Gas Transmission System at the Brookfield, Conn., interconnect; and from Maritimes & Northeast Pipeline at the Beverly, Mass., interconnect.

### **Columbia Gas, App. [Col Gas (TCO)]**

Columbia Gas, Appalachia - Deliveries into Columbia Gas Transmission in eastern Kentucky, eastern Ohio, West Virginia, Pennsylvania, northern Virginia and western New York. The Appalachian pool for deliveries into

Columbia begins downstream of the Leach, Ky., interconnection with Columbia Gulf Transmission; deliveries at Leach are not included. Columbia Gas operates supply pool and market-area storage facilities within this northern Appalachia region, which also has local production. Prices include deliveries system wide at pools, interconnects and on-system points.

## **Dominion, North Point**

Deliveries into Dominion Transmission starting at the Valley Gate delivery point at the end of Dominion's South Point system, about 40 miles northeast of Pittsburgh in Armstrong County, Pa., and continuing north into New York and eastward across the state, crossing the Hudson River and terminating in Rensselaer County, near Albany, Troy and Schenectady, N.Y. Dominion North Point has major interconnects with Columbia Gas Transmission, National Fuel Gas Supply, Texas Eastern Transmission, Transcontinental Gas Pipe Line and Tennessee Gas Pipeline. Major compressor stations in the North Point system include Punxsutawney, Ardell, Finnefrock, Leidy, Greenlick, Ellisburg and Sabinsville, Pa.; and Harrison, Woodhall, Borger and Utica, N.Y.

## **Dominion, South Point**

Deliveries into two Dominion Transmission main lines: One runs northeast from Warren County, Ohio, midway between Cincinnati and Dayton, and merges with the second line just northeast of Pittsburgh, Pa. The second line runs from Buchanan County, Va., on the Virginia/West Virginia border north to the end of the zone at Valley Gate in Armstrong County, Pa. Major stations in the South Point system include interconnections with ANR Pipeline (Lebanon station), Columbia Gas Transmission (Windbridge and Loudoun stations), Tennessee Gas Pipeline (Cornwell station), Transcontinental Gas Pipe Line (Nokesville station) and Texas Eastern Transmission (Lebanon, Oakford, Chambersburg, Perulack and Windridge stations). Storage pools in the South Point system include South Bend, Murrysville, Oakford, Gamble, Hayden, Webster, Colvin, North Summit, Bridgeport, Lost Creek, Kennedy, Fink and Rocket Newberne.

## **Dracut, Mass.**

Deliveries into Tennessee Gas Pipeline at the Dracut interconnect with Maritimes & Northeast Pipeline near Middlesex, Mass. This is the primary delivery point for offshore Nova Scotia gas into the Northeast market area. Dracut also includes gas entering from Portland Natural Gas Transmission System.

## **Iroquois (into)**

Deliveries into Iroquois Gas Transmission System at the U.S./Canadian border at the Waddington interconnect with TransCanada PipeLines.

## **Iroquois-Z2**

Iroquois Zone 2 - Deliveries from Iroquois Gas Transmission System starting at the Athens, N.Y., power plant downstream to the terminus of the pipeline at Hunts Point and South Commack.

## **Millennium EP**

Receipts into Millennium Pipeline Co. downstream of the Corning compressor station in Steuben County, New York, and upstream of the Ramapo interconnect with Algonquin Gas Transmission in Rockland County, New York. (This location does not include deliveries out of Millennium.)

## **Clarington, REX**

Deliveries from REX at Clarington in Monroe County, Ohio, to Dominion Transmission Inc. or Texas Eastern Transmission Corp. Deliveries to the local distributor Dominion East Ohio are not included at this location.

## **TGP-Z4 200L**

Tennessee Gas Pipeline, Zone 4-200 leg - Deliveries into Tennessee at all points of receipt on the 200 line in the states of Pennsylvania and Ohio as well as transactions at Tennessee's Station 219 pool. This location does not include deliveries from Tennessee to other systems in zone 4.

## **TGP-Z4 300L**

Deliveries into Tennessee, zone 4-300 leg from, and including, station 315 in Tioga County, Pennsylvania, to, and including, station 321 in Susquehanna County, Pennsylvania.

## **TGP Z6 Del**

Tennessee, zone 6 delivered - Deliveries from Tennessee Gas Pipeline on the 200 and 300 Legs in Connecticut, Massachusetts, Rhode Island and New Hampshire.

## **TETCO-M2 (receipt)**

Texas Eastern M-2, receipts- Receipts into Texas Eastern Transmission on its 24- and 30-inch lines in the pipeline's Market Zone 2, which extends on the 24-inch line from the Illinois-Indiana state line to the suction side of Bern compressor station in Lewisville, Ohio, and on the 30-inch line from the Tennessee-Kentucky state line to the suction side of Delmont station in Westmoreland County, Pennsylvania, and to the discharge side of Station Site No. 22 in southwestern Pennsylvania. (This location does not include deliveries out of Texas Eastern, M-2.)

### **TETCO-M3**

Texas Eastern, M-3 -Texas Eastern Transmission deliveries from the Delmont compressor station in Westmoreland County, Pa., east to the Hanover and Linden stations in Morris County, N.J. Included are deals delivered from Texas Eastern anywhere in zone M-3, including at interconnects with New York City distributors' city-gates and at interconnects with Algonquin Gas Transmission at Lambertville in Hunterdon County, N.J., and at the Hanover station.

### **Leidy-Transco**

Transcontinental Gas Pipe Line, Leidy Line receipts- Deliveries to Transco's Leidy Line downstream of the Leidy/Wharton storage facilities in Clinton and Potter counties, Pennsylvania, to Transco's Station 505 in Hunterdon County, New Jersey. This pricing location does not include transactions at the storage-related interconnects with Dominion Transmission, National Fuel Gas Supply, UGI Storage or Tennessee Gas Pipeline.

### **Transco-Z6 (non-NY)**

Transco, zone 6 non-New York - Deliveries from Transcontinental Gas Pipe Line from the start of zone 6 at the Virginia/Maryland border to the Linden, N.J., compressor station and on the 24-inch pipeline to the Wharton, Pa., station. The non-New York point does not include deliveries to Public Service Electric and Gas in New Jersey, whose supply is taken downstream of Linden.

### **Transco-Z6 (non-NY north)**

Includes all transactions within Transco Zone 6 north of Compressor Station 195 in York County, PA, with the exception of those areas specified in our Transco Zone 6 NY and Leidy Line indexes. Deals at Leidy, PA are excluded from this listing, as those are reflected in a separate Leidy Hub index.

## **Transco-Z6 (NY)**

Transco, zone 6 New York - Deliveries from Transcontinental Gas Pipe Line at the end of zone 6 into city-gates downstream of Linden, N.J., for New York City area distributors – KeySpan Energy Delivery and Consolidated Edison Co. of New York — as well as Public Service Electric and Gas of New Jersey.

## **GULF COAST / TEXAS:**

### **Agua Dulce Hub**

Deliveries into Kinder Morgan Texas Pipelines, Houston Pipe Line, Gulf South Pipeline, Natural Gas Pipeline Co. of America, Transcontinental Gas Pipe Line, Tennessee Gas Pipeline, TransTexas Gas and EPGT Texas at the Agua Dulce Hub in Nueces County, Texas, about 20 miles west-southwest of Corpus Christi. Deliveries from the ExxonMobil King Ranch plant are included.

### **ANR-LA**

Deliveries into ANR Pipeline along the southeastern Louisiana lateral that starts offshore and runs to the Patterson, La., compressor station onshore and on to the Eunice, La., station, where ANR's Southeast mainline begins. Also, deliveries into ANR along a second lateral that runs from the HIOS system downstream of West Cameron 167 offshore to the Grand Chenier, La., station onshore and on to the Eunice station, as well as deals done at the Eunice pool.

### **ANR-SE**

Comprised of transactions within the ANR Southeast Area, including both the Transmission and the Gathering segments of the pipeline. This region includes all onshore and offshore points on ANR Pipeline south of and including the SE Headstation at Eunice, LA. Those points south of Eunice lie along two separate offshore/onshore laterals. Gas from the east lateral comes onshore through the 1.6 Bcf/d Calumet Processing Plant in Saint Mary Parish, LA, while the west lateral shuttles gas from the High Island Offshore System onshore through the Grand Chenier Compressor Station. The two laterals merge at the SE Headstation in Eunice.

### **Carthage**

Carthage Hub- Deliveries into Reliant Energy Gas Transmission, Gulf South Pipeline, Lone Star Pipeline, Southern Natural Gas, Kinder Morgan Texas Pipelines, Tennessee Gas Pipeline, Texas Eastern Transmission and Texas Gas Transmission at the tailgate of the Carthage, Texas, processing plant in Panola County, Texas.

## **Columbia Gulf, LA (CG-Onshore)**

Columbia Gulf, La.- Deliveries into Columbia Gulf Transmission on its onshore lateral pipeline system stretching across South Louisiana, upstream of Rayne, La. Columbia Gulf's East Lateral extends from Rayne to Venice, La. The West Lateral runs from Rayne to west of Cameron, La. Excluded are deals done in the offshore rate zone, at Rayne or elsewhere in the mainline rate zone.

## **Columbia Gulf, Mainline (CG-Mainline)**

Columbia Gulf, mainline- Deliveries into Columbia Gulf Transmission anywhere along its mainline system zone in Louisiana and Mississippi. The mainline system extends northeast from Rayne, La., to Leach, Ky.

## **Florida Gas, zone 1 (FGT-Z1)**

Florida Gas, zone 1- Deliveries into Florida Gas Transmission beginning at compressor station 2 in Nueces County in South Texas to station 7 in Acadia Parish, La.

## **Florida Gas, zone 2 (FGT-Z2)**

Florida Gas, zone 2- Deliveries into Florida Gas Transmission downstream of station 7 in Acadia Parish, La., to station 8 in East Baton Rouge Parish. Included is supply into the mainline from the White Lake Lateral and from the Chacahoula Lateral, both of which extend south from the mainline into production areas.

## **Florida Gas, zone 3 (FGT-Z3)**

Florida Gas, zone 3- Deliveries into Florida Gas Transmission downstream of compressor station 8 to just upstream of station 12 in Santa Rosa County, Fla., the demarcation point with the market area. OPIS daily and monthly bidweek surveys for zone 3 include deliveries between stations 8 and 12, including Mobile Bay deals into Florida Gas.

## **Florida citygates**

Deliveries from Florida Gas Transmission into all city-gates in the Florida market area, which begins in Santa Rosa County just west of station 12 in the extreme western Florida Panhandle and extends into southern Florida.

## **Henry Hub**

Deliveries into interstate and intrastate pipelines from the outlet of Henry Hub on Sabine Pipe Line in Vermilion Parish, La. Pipelines include Gulf South Pipeline, Southern Natural Gas, Natural Gas Pipeline Co. of America, Texas Gas Transmission, Sabine Pipe Line, Columbia Gulf Transmission, Transcontinental Gas Pipe Line, Trunkline Gas, Jefferson Island Pipeline and Acadian Gas.

## **Houston Ship Channel**

Deliveries to end-users and pipelines that serve them in the Houston Ship Channel region, an industrial area extending from the east side of Houston to Galveston Bay and northeastward to the Port Arthur/Beaumont area. Gas is delivered in this area by numerous pipelines, including Kinder Morgan Texas Pipeline, Kinder Morgan Tejas Pipeline, Houston Pipe Line, and the former EPGT and Channel pipelines.

## **Katy**

Deliveries into Oasis Pipeline, Lone Star Pipeline, Houston Pipe Line and Kinder Morgan Texas Pipelines in the Katy, Texas, area, including deliveries and receipts into and out of Katy storage.

## **Katy-Lonestar Inter**

Lone Star – Deliveries into Lone Star Pipeline's S2 Lateral starting in Henderson County, Texas, east to the Carthage plant in Panola County, Texas.

## **NGPL-STX**

NGPL, South Texas- Deliveries into Natural Gas Pipeline Co. of America at the beginning of the mainline at the Thompsonville receipt point in Jim Hogg County, Texas, north to compressor station 302 in Montgomery County, Texas.

## **NGPL-TXOK**

NGPL, Texok zone – Deliveries to Natural Gas Pipeline Co. of America in all areas of the Texok zone excluding the portion in Texas and Oklahoma on the A/G Line. Applicable to the Texok zone are deliveries to



Natural from the Louisiana/Texas border westward to compressor station 302 in Montgomery County, Texas, and northward to the interconnect with the Gulf Coast Mainline receipt zone in Cass County, Texas. The 'Texok Gulf Coast Pooling Point' is included in this posting, but the 'Texok A/G Pooling Point' is not.

## **NGPL- LA**

Deliveries into Natural Gas Pipeline Co. of America from compressor station 344 in Jefferson County, Texas, to the terminus of the line in Vermilion Parish, La., at Erath and Henry Hub.

## **Sonat-T1/Sonat-Z0 South**

Southern Natural, La. - Deliveries into Southern Natural Gas' mainlines anywhere in Louisiana, including an eastern spur starting in Plaquemines Parish and a western spur starting in St. Mary Parish in South Louisiana, and a line that starts at the Texas/Louisiana border in DeSoto Parish and runs to the Louisiana/Mississippi border in East Carroll Parish in northern Louisiana.

## **TETCO-ETX**

Texas Eastern, East Texas- Deliveries into Texas Eastern Transmission on the 24-inch line from the Huntsville, Texas, compressor station to the Little Rock station in Arkansas, including the segment from Joaquin to Sharon.

## **TETCO-STX**

Texas Eastern, South Texas- Deliveries into Texas Eastern Transmission on the 30-inch pipeline from the Mexico/Texas border to just upstream of the Vidor, Texas, compressor station; and deliveries into Texas Eastern on the 24-inch pipeline from the Hagist Ranch compressor station to just upstream of the Huntsville, Texas, station.

## **TETCO-WLA**

Texas Eastern, West Louisiana - Deliveries into Texas Eastern Transmission on the 30-inch line from the Vidor, La., compressor station to just upstream of the Opelousas, La., compressor station. Included are deliveries from Texas Eastern's offshore Cameron Line at the Gillis, La., compressor station.

## **TETCO-ELA**

Texas Eastern, East Louisiana- Deliveries into Texas Eastern Transmission on the 30-inch line from the Opelousas, La., compressor station to the Kosciusko, Miss., compressor station. Included are deliveries into the 30-inch pipeline from Texas Eastern's Venice Line at the New Roads, La., compressor station.

## **TETCO-M1 30**

Texas Eastern, M-1 30-inch (Kosi) - Deliveries into Texas Eastern Transmission on the 30-inch line at the Kosciusko, Miss., compressor station, which is the demarcation point between Texas Eastern's production and market zones. Deliveries into the 24-inch mainline are not included.

## **TETCO-M1 24**

Texas Eastern, M-1 24-inch- Deliveries to Texas Eastern's 24-inch line downstream of the suction side of the Little Rock, Arkansas, compressor station to the Illinois-Indiana state line.

## **TGT-Mainline (TGT-ZN1)**

Texas Gas, zone 1- Deliveries into Texas Gas Transmission starting just south of the Pineville, La., compressor station in Rapides Parish north to Crockett County, Tenn.

## **TGT-SL**

Texas Gas, zone SL- Deliveries into Texas Gas Transmission on two southeastern Louisiana laterals, including offshore segments. The southwest spur begins offshore at Grand Chenier and runs through Cameron Parish to the Eunice compressor station. The southeast spur begins offshore and runs through Terrebone Parish to Eunice. Zone SL extends to the vicinity where Texas Gas crosses the Red River in Rapides Parish.

## **TGP-Z0**

Tennessee, zone 0- Deliveries into Tennessee Gas Pipeline's 100 Leg from the Mexico/Texas border to the Texas/Louisiana border.

## **TGP-500L**

Tennessee, Louisiana, 500 Leg- Deliveries into Tennessee Gas Pipeline's 500 Leg in zone L in southeastern Louisiana, including deliveries into the 500 Leg from the offshore Blue Water Header system. The 500 Leg meets the boundary of the market area at station 542 in eastern Mississippi.

## **TGP-800L**

Tennessee, Louisiana, 800 Leg- Deliveries into Tennessee Gas Pipeline's 800 Leg in zone L in southeastern Louisiana, including deliveries from the offshore Blue Water Header system. The leg meets the boundary of the market area at station 834 at Winnsboro in central Louisiana.

## **Transco-30 (ZN1)**

Transco, zone 1- Deliveries into Transcontinental Gas Pipe Line on two 24-inch lines running from South Texas to compressor station 30 in Wharton County, Texas, which is Transco's pooling point for gas gathered on the Gulf Central Texas Lateral and for onshore coastal South Texas production.

## **Transco-45 (ZN2)**

Transco, zone 2- Deliveries into Transcontinental Gas Pipe Line on the 30-inch line downstream of station 30 in Wharton County, Texas, to compressor station 45 in Beauregard Parish, La., the only pooling point in the zone.

## **Transco-65 (ZN3)**

Transco, zone 3- Deliveries into Transcontinental Gas Pipe Line on the 30-inch, 36-inch and 42-inch lines downstream of compressor station 45 in Beauregard Parish, La., to station 65 on the Louisiana/Mississippi border in St. Helena Parish, La. Pooling points in the zone are at stations 50, 62 and 65.

## **Transco-85 (ZN4)**

Transco, zone 4- Deliveries into Transcontinental Gas Pipe Line on the 30-inch, 36-inch and 42-inch lines downstream of compressor station 65 at the Louisiana/Mississippi border in St. Helena Parish, La., to the Georgia/South Carolina border. Gas enters the Transco mainline from the Mobile Bay Lateral at station 85 in Butler, Ala., the only zone 4 pooling point.

## **Transco-Z5 (non-WGL)**

Transco, zone 5 delivered- Deliveries from Transcontinental Gas Pipe Line on the 30-inch, 36-inch and 42-inch lines from the Georgia/South Carolina border to the Virginia/Maryland border. Deliveries into Transco at the Pleasant Valley receipt point near Fairfax, Va., from Dominion's Cove Point LNG terminal are not included.

## **Trunkline-TX**

Trunkline, Texas- Deliveries into Trunkline Gas in the Texas field zone starting at the Beeville compressor station in Bee County, Texas, north to the Longville, La., station in Beauregard Parish, La.

## **Trunkline-WLA**

Trunkline, W. La.- Deliveries into Trunkline Gas along two laterals starting at an offshore Louisiana lateral leading to the Kaplan, La., station in Vermilion Parish, northwest to the Longville compressor station. Included are deliveries at the Kaplan compressor station, which demarcates the WLA and ELA zones.

## **Trunkline-ELA**

Trunkline, E. La.- Deliveries into Trunkline Gas on an offshore gathering system running from south of Terrebonne Parish west to the Kaplan station in Vermilion Parish, the boundary with the WLA zone.

## **Trunkline-LA**

Trunkline, La.- Deliveries into Trunkline Gas at points upstream of the Longville compressor station on the lines that do not extend to Texas.

## **Trunkline-Z1A**

Trunkline, zone 1 A- Deliveries to Trunkline Gas Co. in zone 1A from the discharge side of its Longville, Louisiana, compressor station north to the suction side of its Dyersburg, Tennessee, station, as well as transactions at Trunkline's zone 1A pool.

## **MIDCONTINENT / CENTRAL:**

### **Alliance, into interstates**

Deliveries from Alliance Pipeline into Vector Pipeline, Natural Gas Pipeline Co. of America, ANR Pipeline and Midwestern Gas Transmission at the tailgate of the Aux Sable plant in north-central Illinois at the terminus of

Alliance. Deliveries into the Northern Indiana Public Service, Peoples Gas Light & Coke and Nicor Gas city-gates in the Chicago area are not included.

## **ANR ML7**

ANR, ML 7- Deliveries into ANR Pipeline in its northern market zone starting at the Sandwich, Ill., compressor station at the terminus of the Southwest mainline north through Wisconsin to the Crystal Falls, Mich., interconnection with Great Lakes Gas Transmission. Also, deliveries into ANR east from Sandwich to the Defiance, Ohio, compressor station at the terminus of the Southeast mainline, and north from the Bridgman, Mich., station to the Orient, Mich., station.

## **ANR-Joliet Hub (Joliet)**

ANR-Joliet Hub (Joliet) Gas transacted at all pipeline interconnections at ANR's Joliet Hub in Will County, IL, and at Channahon in Grundy County, IL. Joliet and Channahon are approximately ten miles apart. ANR's Joliet Hub interconnects with Alliance, Guardian, Horizon, Kinder Morgan Illinois, NGPL, Northern Border, Midwestern, and Vector Pipelines, along with the NiGas, NIPSCO, and Peoples LDC systems. Channahon is home of the Aux Sable natural gas processing plant, and is the terminus of Alliance Pipeline. Alliance connects with ANR, Guardian, NGPL, Midwestern, and Vector Pipelines, with small interconnects with the NiGas and Peoples LDC systems.

## **ANR, OKLA (ANR SW)**

ANR, Okla.- Deliveries into ANR Pipeline at the start of the Southwest mainline at the Custer, Okla., compressor station, into the Texas Panhandle north to the Greensburg, Kan., station.

## **Chicago Citygates**

Deliveries into the Nicor Gas, Peoples Gas Light & Coke, North Shore Gas and Northern Indiana Public Service city-gates in the Chicago metropolitan area from Natural Gas Pipeline Co. of America, ANR Pipeline, Alliance Pipeline, Northern Border Pipeline and Midwestern Gas Transmission.

## **Consumers Citygate (Consumers)**

Consumers Energy city-gate- Deliveries into all city-gates of Consumers Energy, which serves most of central Michigan and the areas around Saginaw Bay.

## **Dawn, Ontario**

Deliveries from Union Gas' Dawn Hub, a gathering point for 15 adjacent storage pools in Ontario near Port Huron, Mich., on the U.S./Canadian border. Included are deliveries into TransCanada PipeLines at Kirkwall, Ontario; deliveries into Great Lakes Gas Transmission at St. Clair, Mich.; deliveries into Consumers Energy at Bluewater, Mich.; deliveries into Panhandle Eastern Pipe Line at Ojibway, Mich.; and deliveries into Dawn storage. Deliveries from Union into TransCanada at Parkway, Ontario, are not included.

## **Demarc**

Northern, demarcation- Deliveries into Northern Natural Gas at the demarcation point between its production (field) and market zones, at the Clifton station in Clay County, Kan.

## **EGT-East**

Our Enable East index includes transactions within both the North and the Neutral (aka "Flex Pool") Pooling areas of the EGT system. The North Pooling Area includes all points in Arkansas along the EGT system that are north of the Malvern Compressor Station, the small lateral in Arkansas that runs south of Malvern in Arkansas and Desha Counties, and all points west of the Dunn Compressor Station up to but not including the beginning of the Neutral Pooling Area in Oklahoma. The Neutral Pool contains all points along CEGT in Pittsburg, Haskell, Latimer, and Pushmataha Counties in Oklahoma. This point was renamed this index Enable East from CenterPoint East.

## **EGT-South (EGT-Flex)**

Enable Gas East- Deliveries into Enable Gas Transmission's flex/neutral and north pooling areas in northeastern Arkansas and southeastern Oklahoma. The north pooling area is separated from the south pooling area by a generally northwest-to southeast line between Le Flore County, Okla., and Bolivar County, Miss. The flex (or neutral) pooling area in Oklahoma comprises all of Pushmataha, Latimer, Haskell and Pittsburg counties and the northeast section of Atoka County. In the past, the system was known as NorAm Gas Transmission, Arkla Energy Resources and, prior to Aug. 1, 2004, Reliant Energy Gas Transmission.

## **Emerson, Viking GL (Emerson)**

Emerson, Viking GL- Deliveries into Great Lakes Gas Transmission from TransCanada PipeLines at the Emerson 2 meter station at the U.S./Canadian border at Emerson, Manitoba, and deliveries into Viking Gas Transmission from TransCanada at the Emerson 1 station.

## **Lebanon Hub**

Lebanon Hub - Deliveries to or from Texas Gas Transmission Corp., ANR Pipeline Co., Texas Eastern Transmission Corp., Panhandle Eastern Pipe Line Co., Columbia Gas Transmission Corp., Dominion Gas Transmission Inc. and Rockies Express Pipeline at interconnects in the Lebanon, Ohio, area.

## **Michcon**

MichCon city-gate- Deliveries into all city-gates of Michigan Consolidated Gas, which serves the Detroit and Grand Rapids areas and much of north and northeast Michigan. The main MichCon city-gates are located at interconnects with ANR Pipeline at Willow Run and Wolkfork, Mich., Panhandle Eastern Pipe Line at River Rouge, Great Lakes Gas Transmission at Belle River, Union Gas at St. Clair Pipeline and Consumers Energy at Northville. MichCon also receives in-state production at Kalkaska.

## **NGPL-Amarillo Rec.**

NGPL, Amarillo receipt- Deliveries into Natural Gas Pipeline Co. of America starting at the Trailblazer Pipeline interconnection in Gage County, Neb., on the Amarillo mainline at compressor station 106 east to NGPL's interconnection with Northern Border Pipeline at station 109 in Keokuk County, Iowa.

## **NGPL, Midcontinent**

NGPL, Midcontinent- Deliveries into Natural Gas Pipeline Co. of America starting at compressor station 155 in Wise County, Texas, west to the Amarillo mainline at station 112 in Moore County in the Texas Panhandle, and then north to the Trailblazer Pipeline interconnection in Gage County, Neb. Included are deliveries into NGPL at all Oklahoma points west of station 801, as well as those in North Texas north and east of station 170 and in Kansas south of station 103.

## **NBPL-Ventura**

Deliveries to Northern Natural Gas at Ventura in Hancock County, Iowa. Northern Border, Ventura Transfer Point- Deliveries on Northern Border Pipeline Co. at its Ventura Transfer point (DRN# 125771). This location is

designed to capture gas traded on Northern Border at Ventura that is not traded for delivery to Northern Natural Gas Co. at the Northern Natural/Northern Border Ventura interconnect.

## **NNG, Ventura**

The Northern Natural Gas Ventura (NNG, Ventura) encompasses the captures the value of gas at Ventura, IA that is ticketed for delivery into the Chicago area. As such, it includes receipts from Northern Natural Gas, along with deliveries along its own system at the Ventura Transfer Point. As stated in the Northern Border tariff, “the term ‘Transfer Point’ shall be used to describe a point on company’s system where, for purposes of scheduling and nominations, in-line transfers of gas shall occur from one transportation agreement to another or from a compression agreement or PAL agreement to a transportation agreement.

## **Oneok-OK (OGT)**

Oneok, Okla.- Deliveries into Oneok Gas Transportation’s mainline systems from several gathering systems, all of which are located in Oklahoma. One of the two largest is near the east-central part of the state in Pittsburg and Haskell counties. The second, in the west-central part of the state, extends from Blaine and Canadian counties southeast to Grady County. Oneok operates a single price pool for all gas coming into the system. In the past, Oneok was known as ONG Transmission.

## **Panhandle**

Deliveries into Panhandle Eastern Pipe Line on two laterals running from the Texas and Oklahoma panhandles, southwestern Kansas and northwestern Oklahoma upstream of the Haven, Kan., compressor station. Deliveries to Panhandle at the Haven pooling point — the demarcation between Panhandle’s field and market zones — are not included.

## **Southern Star**

Southern Star, Tx.-Okla.-Kan.- Deliveries into Southern Star Central Gas Pipeline’s system from Hemphill County in the Texas Panhandle eastward, from Carter County in south-central Oklahoma northward and from Grant County in southwestern Kansas eastward. In the past, the system was known as Williams Natural Gas and, prior to Aug. 1, 2004, Williams Gas Pipelines Central.

## **WEST / ROCKIES:**

### **Cheyenne Hub**



Deliveries into and receipts from the Cheyenne Hub in Weld County, CO. Interconnecting pipelines include Cheyenne Plains, Colorado Interstate Gas (CIG), Kinder Morgan Interstate Gas Transmission (KMIGT), Public Service of Colorado, Rockies Express, Southern Star, Trailblazer, and Wyoming Interstate Company (WIC).

## **CIG, Rockies**

CIG, Rocky Mountains- Deliveries into Colorado Interstate Gas' 20-inch, 22-inch and 24-inch mainlines in Wyoming and Colorado. Also included are deliveries into the Parachute to Natural Buttes segment in Uintah County, Utah, and deliveries into CIG's 16-inch lateral running from the Rawlins station in Carbon County, Wyo., to the Elk Basin station in Park County, Wyo. Not included are deliveries into CIG's system at points south of Cheyenne, Wyo.

## **CIG Mainline**

Subset of CIG Rockies - Colorado Interstate Gas Company - Mainline (sellers' choice non-lateral from Muddy Creek to Cheyenne, excluding pool gas.)

## **El Paso, Bondad**

El Paso, Bondad- Deliveries into El Paso Natural Gas at the Bondad compressor station in the San Juan Basin. Bondad is located in the northern part of the San Juan Basin in La Plata County, Colo., south of the Ignacio plant on Northwest Pipeline and north of the Blanco plant on El Paso.

## **El Paso, Permian**

El Paso, Permian Basin- Deliveries into El Paso Natural Gas in the Permian Basin from three pools: the Waha plant south (Waha pool), the Keystone station south to Waha (Keystone pool) and the Plains station south to Keystone (Plains pool).

## **El Paso, South Mainline**

El Paso, South Mainline- Deliveries on El Paso's south mainline at points between Cornudas station in West Texas to but not including Ehrenberg, Arizona.

## **El Paso, San Juan (Blanco)**

El Paso, San Juan Basin- Deliveries into El Paso Natural Gas south of the Bondad compressor station in the San Juan Basin, including gas from the Blanco, Chaco, Rio Vista, Milagro and Valverde plants in New Mexico.

## **El Paso, Waha**

Deliveries into interstate and intrastate pipelines at the outlet of the Waha header system and in the Waha vicinity in the Permian Basin in West Texas. Pipelines include El Paso Natural Gas, Transwestern Pipeline, Natural Gas Pipeline Co. of America, Northern Natural Gas, Delhi Pipeline, Oasis Pipeline, EPGT Texas and Lone Star Pipeline.

## **GTN, Kingsgate**

GTN, Kingsgate- Deliveries into Gas Transmission Northwest from Foothills Pipeline at the Kingsgate interconnection at the U.S./Canadian border in Boundary County, Idaho. Prior to Aug. 1, 2004, the system was known as PG&E Gas Transmission, Northwest.

## **Kern River, delivered**

Kern River, delivered- Deliveries from Kern River Gas Transmission upstream of the Southern California Gas system in the Las Vegas, Nevada area; excluded are deliveries at Wheeler Ridge, Kramer Junction and Daggett.

## **Malin**

PG&E, Malin- Deliveries into Pacific Gas and Electric's Lines 400 and 401 at the Oregon/California border at Malin, Ore. This location includes deliveries from Gas Transmission Northwest and Ruby Pipeline.

## **NWP-Rocky Mtn**

Northwest, Rocky Mountains (NWP-Rocky Mtn) Deliveries into Northwest Pipeline's mainline in Wyoming, Utah and Colorado between the Kemmerer and Moab stations. Deliveries at Ignacio, Colo., and elsewhere in zone MO are excluded. Transactions done at Opal, Wyo., and the Muddy Creek compressor station — where Northwest interconnects with Kern River Gas Transmission, Questar Pipeline and Colorado Interstate Gas — are used in both the Kern River, Wyoming, and Northwest Pipeline, Rocky Mountain, monthly postings because gas traded at those points often isn't for nomination into a specific pipeline.

## **Northwest, S. of Green River**

Deliveries into Northwest Pipeline from the Green River, Wyo., compressor station south to the La Plata interconnection with El Paso Natural Gas in the San Juan Basin in La Plata County, Colo. Included are deliveries from Clay Basin storage, the Piceance Basin and the Ignacio plant.

## **NW, Wyo. Pool**

Deliveries into Northwest Pipeline from the Green River, Wyo., compressor station to the Kemmerer, Wyo., station. Included are deliveries at the Opal, Wyo., plant as well as at the Painter, Anschutz, Muddy Creek, Granger, Shute Creek and Whitney stations.

## **Opal**

Kern River, Wyoming- Deliveries into Kern River Gas Transmission anywhere in Wyoming. Transactions done at Opal, Wyo., and the Muddy Creek compressor station — where Kern River interconnects with Northwest Pipeline, Questar Pipeline and Colorado Interstate Gas — are used in both the Kern River, Wyoming, and Northwest Pipeline, Rocky Mountain, monthly postings because gas traded at those points often isn't for nomination into a specific pipeline.

## **Opal Plant Tailgate**

Kern River/Opal plant- Deliveries into Kern River Gas Transmission at the Opal, Wyo., processing plant and Muddy Creek compressor station in southwestern Wyoming where Kern River interconnects with Northwest Pipeline, Questar Pipeline and Colorado Interstate Gas. Gas traded at the Opal plant that isn't nominated into a specific pipeline is included in the daily Kern River/Opal plant pricing point.

## **PG&E-Topock**

PG&E, South- Deliveries into Pacific Gas and Electric in Southern California from El Paso Natural Gas and Transwestern Pipeline at Topock, Calif.; from Kern River Gas Transmission at Daggett, Calif., and the High Desert Lateral; from Southern California Gas at the Kern River station; and from Questar Southern Trails Pipeline at Essex, Calif.

## **PG&E - Citygate**

PG&E, city-gate- Deliveries from Pacific Gas and Electric's intrastate transmission system to citygates on PG&E's local distribution system in Northern California.

## **PSCo Citygate**

Deliveries into Public Service Co. of Colorado from Front Range points, primarily from Denver-Julesburg Basin production. Excluded is gas entering the system from the Chalk Bluffs Hub, which is priced at Cheyenne Hub, and gas entering the system at Fort Lupton, where gas competes with long-haul supply on Colorado Interstate Gas.

## **Questar, Rocky Mountains**

Deliveries into Questar Pipeline on its North system, which runs from northwestern Colorado through southern Wyoming to Salt Lake City, and on its South system, which runs from western Colorado to Payson, Utah, east of the Fidar compressor station. A 20-inch line running parallel to the Utah/Colorado border connects the two systems.

## **SoCal Border**

Deliveries into Southern California Gas from El Paso Natural Gas at Topock, Calif., and Blythe, Calif. (Ehrenberg, Ariz.); from Transwestern Pipeline at Topock/Needles, Calif.; from Kern River Gas Transmission at Wheeler Ridge and Kramer Junction, Calif.; and from Questar Southern Trails Pipeline at Needles. The point also includes deliveries from Pacific Gas and Electric at several points, including Kern River station and Pisgah/Daggett; and in-state production.

## **SoCal-Citygate**

SoCal Gas, city-gate- Deliveries at Southern California Gas Co.'s city-gate pool. The SoCal Gas city-gate pool is a "virtual" trading location on SoCal Gas' system for deliveries to and from holders of the distributor's city-gate pool contracts. This point includes storage transactions delivered to and from the city-gate pool.

## **Stanfield**

Stanfield, Ore.- Deliveries into Northwest Pipeline from PG&E Gas Transmission, Northwest (now named Gas Transmission Northwest) at the Stanfield compressor station in Umatilla County, Ore., on the Oregon/Washington border.

## **Sumas**

Northwest, Canadian border (Sumas)- Deliveries into Northwest Pipeline from Westcoast Energy at the Sumas, Wash./Huntington, British Columbia, interconnection at the U.S./Canadian border.

## **TW-Blanco**

Transwestern Pipeline Co., San Juan Basin- Deliveries to Transwestern at points included in Transwestern's Blanco Hub in San Juan County, New Mexico.

## **TW-Permian**

Transwestern, Permian Basin- Deliveries into Transwestern Pipeline from the West Texas zone located southeast and southwest of the WT-1 compressor station in Lea County, N.M., and the Central zone bordered by station 8 in Lincoln County, N.M., to the northwest, station P-1 in Roosevelt County, N.M., to the east and station WT-1 in Eddy County, N.M., to the south.

## **White River Hub**

Deliveries to or from pools or interconnects that make up the White River Hub in Rio Blanco County, Colorado.

## **Canada:**

### **TCPL AECO-C (also known as NOVA)**

Deliveries into TransCanada's Alberta System at the AECO-C, NIT Hub in southeastern Alberta. AECO-C is the principal storage facility and hub on TCPL Alberta; paying the rate for NIT service, or Nova Inventory Transfer, will cover transmission for delivery of gas to AECO-C and most other points. The monthly bidweek posting is composed of fixed-price deals only. The price is reported in Canadian dollars per gigajoule. Prior to Aug. 1, 2004, the system was known as Nova.

### **Westcoast-STA2**

Westcoast, station 2- Deliveries into Westcoast Energy at compressor station 2 in north-central British Columbia, where much of northern British Columbia and Alberta production is pooled for shipment south and east. The price is reported in Canadian dollars per gigajoule.