

**JOHN N. HUGHES**  
*Attorney at Law*  
Professional Service Corporation  
124 West Todd Street  
Frankfort, Kentucky 40601

Telephone: (502) 227-7270

[jnhughes@johnnhughespsc.com](mailto:jnhughes@johnnhughespsc.com)

February 16, 2022

Linda C. Bridwell  
Executive Director  
Public Service Commission  
211 Sower Blvd. Frankfort,  
KY 40601

Re: Atmos Energy Corporation Case  
No. 2020-00289

Dear Ms. Bridwell:

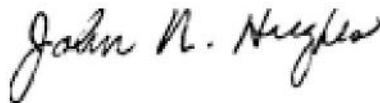
Atmos Energy Corporation submits its responses to the Commission's Post hearing Data Request and a petition for confidentiality. I certify that the electronic documents are true and correct copies of the original documents and that no party has been excused from electronic service.

If you have any questions about this filing, please contact me.

Submitted By:

Mark R. Hutchinson  
Wilson, Hutchinson and Littlepage  
611 Frederica St.  
Owensboro, KY 42301  
270 926 5011  
[randy@whplawfirm.com](mailto:randy@whplawfirm.com)

And



John N. Hughes  
124 West Todd St.  
Frankfort, KY 40601  
502 227 7270  
[jnhughes@johnnhughespsc.com](mailto:jnhughes@johnnhughespsc.com)

Attorneys for Atmos Energy Corporation

**COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION**

**IN THE MATTER OF:**

<b>REQUEST OF ATMOS ENERGY CORPORATION</b>	)
<b>FOR MODIFICATION AND EXTENSION OF ITS</b>	)
<b>GAS COST ADJUSTMENT PERFORMANCE BASED</b>	) <b>CASE NO.</b>
<b>RATEMAKING MECHANISM</b>	) <b>2020-00289</b>

**PETITION FOR CONFIDENTIALITY**

Atmos Energy Corporation (Atmos Energy), by counsel, petitions for an order granting confidential protection of certain responses to the Post Hearing Data Request 1, pursuant to 807 KAR 5:001, Section 13 and KRS 61.878.

Item 1-07 requests:

For each month from June 2016 through May 2021, provide the (1) Inside FERC first of the month posting for ANR-Louisiana, (2) the Inside FERC first of the month posting for Texas Gas Zone 1, (3) the Inside FERC first of the month posting for Tennessee Louisiana 500 Leg, (4) the Inside FERC first of the month posting for South Louisiana-Henry Hub, (5) the Inside FERC first of the month posting for Trunkline Louisiana, (6) the New York Mercantile Exchange Settled Closing Price, and (7) the Inside FERC first of the month posting for Texas Gas Zone SL.

This information is obtained by Atmos from S&P Global Platts and the subscription with S&P Global Platts does not permit this information to be disclosed publicly. This publication is proprietary information subject to copyright laws protecting it from disclosure, which requires Atmos Energy to take reasonable steps to prevent public, unauthorized disclosure. The information was acquired by Atmos Energy on a

proprietary basis and to the best of its knowledge is not publicly disclosed or available. Similar information was determined to be confidential in Duke Energy's Application for Rate Adjustment, Case No. 2017- 00321, Order of May 3, 2018, and Application of Big Rivers, Order of January 22, 2020, Case No. 2019-00365.

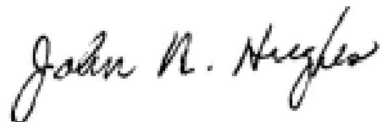
The Kentucky Open Records Act exempts from disclosure certain confidential or proprietary information. KRS 61.878(1)(c). To qualify for this exemption and, therefore, maintain the confidentiality of the information, a party must establish that disclosure of the information would permit an unfair commercial advantage to competitors of the party seeking confidentiality.

The information sought in the data requests is commercial information that if disclosed could cause substantial competitive harm to Atmos Energy. These portions of Atmos Energy's Response contain proprietary information that would aid competitors of Atmos Energy and such proprietary information is subject to protection from disclosure pursuant to Kentucky law. This information is not publicly available. It would be difficult or impossible for someone to discover this information from other sources. If this information were available to competitors in this form, they could use it to the competitive detriment of Atmos Energy. This information is not generally disclosed to non-management employees of Atmos Energy and is protected internally by the Company as proprietary information. The disclosure of this proprietary information would result in significant or irreparable competitive harm to Atmos Energy by providing its competitors with non-reciprocal competitive advantage. No public purpose is served by the disclosure of such information.

Atmos Energy requests that the information be held confidentially indefinitely. The statutes cited above do not allow for disclosure at any time. Given the competitive nature of the natural gas business and the efforts of non-regulated competitors to encroach upon traditional markets, it is imperative that regulated information remain protected and that the integrity of the copy righted information and tax filings remain secure.

For these reasons, Atmos Energy requests that the items identified in this petition be treated as confidential in their entirety. Should the Commission determine that some or all of the material is not to be given confidential protection, Atmos Energy requests a hearing prior to any public release of the information to preserve its rights to notice of the grounds for the denial and to preserve its right of appeal of the decision.

Submitted by:



John N. Hughes  
124 West Todd St.  
Frankfort, KY 40601

502 227 7270  
[jnhughes@johnnhughespsc.com](mailto:jnhughes@johnnhughespsc.com)

And

Mark R. Hutchinson  
Wilson, Hutchinson & Littlepage  
611 Frederica St.  
Owensboro, KY 42303  
270 926 5011  
Fax: 270-926-9394  
[randy@whplawfirm.com](mailto:randy@whplawfirm.com)

Attorneys for Atmos Energy Corporation

Certification:

I certify that is a true and accurate copy of the original documents; that the electronic filing was transmitted to the Commission on February 16, 2022; and that no party has been excused from participation by electronic means.

*John N. Hedges*

**Case No. 2020-00289**  
**Atmos Energy Corporation, Kentucky Division**  
**Staff Post-Hearing DR Set No. 1**  
**Question No. 1-01**  
**Page 1 of 1**

**REQUEST:**

Identify any economic or scientific studies of which Atmos is aware that support the contention that adopting a Performance Based Rate (PBR) mechanism reduces gas costs for customers of local gas distribution companies, and provide copies of any such studies.

**RESPONSE:**

While Atmos Energy is aware of findings of its regulators in other jurisdictions that Performance Based Rate (PBR) mechanisms reduces gas costs for customers of local gas distribution companies, the Company is not aware of any "economic or scientific studies" that support the contention that adopting a Performance Based Rate (PBR) mechanism reduces gas costs for customers of local gas distribution companies.

Respondent: Brannon C. Taylor

**Case No. 2020-00289**  
**Atmos Energy Corporation, Kentucky Division**  
**Staff Post-Hearing DR Set No. 1**  
**Question No. 1-02**  
**Page 1 of 1**

**REQUEST:**

Provide the most recent version of the S&P Global/Platts Methodology and Specifications Guide for the United States and Canada's natural gas market, explaining how Platts determines its Inside FERC and Gas Daily prices and identifying the locations at which it offers prices.

**RESPONSE:**

Please see Attachment 1 and Attachment 2.

**ATTACHMENTS:**

Staff PH\_1-02\_Att1 - Platts Assessments Methodology Guide.pdf  
Staff PH\_1-02\_Att2 - Platts Assessments Methodology Guide.pdf

Respondent: Brannon C. Taylor

# Methodology and specifications guide

## US and Canada natural gas

Latest update: May 2020

<b>Introduction</b>	<b>2</b>	<b>Part VI: Requests for clarifications of data and complaints</b>	<b>8</b>	Daily CGPR Symbols (USD/MMBtu)	37
How this methodology statement is organized	2			Monthly CGPR Symbols (CAD/Gj)	38
<b>Part I: Data quality and data submission</b>	<b>2</b>	<b>Part VII: Definitions of the trading locations for which Platts publishes daily and monthly indices or assessments</b>	<b>9</b>	Monthly CGPR Symbols (USD/MMBtu)	39
What to report	3	Northeast	9	CGPR Daily & Monthly Indices Methodology	40
How to report	3	Appalachia	10	Gas Indices Americas (GIA) Daily Indices Methodology	40
<b>Part II: Security and confidentiality</b>	<b>3</b>	Midcontinent	11	GIA Symbols	41
		Upper Midwest	12	<b>Revision history</b>	<b>42</b>
<b>Part III: Calculating indices and making assessments</b>	<b>3</b>	East Texas	13		
Price assessment and index guidelines	4	Louisiana/Southeast	14		
Daily market	4	Rockies/Northwest	15		
Monthly market	5	Southwest	17		
Outliers	7	Platts locations daily symbols	18		
Regional and national averages	7	Platts locations monthly symbols	22		
		Platts Canadian OTC Indices daily symbols	25		
<b>Part IV: Platts editorial standards</b>	<b>7</b>	Platts Canadian OTC Indices monthly symbols	25		
		ICE locations daily symbols	26		
<b>Part V: Corrections</b>	<b>8</b>	ICE locations monthly symbols	30		
		Daily CGPR Symbols (CAD/Gj)	36		



## INTRODUCTION

S&P Global Platts methodologies are designed to produce price assessments and indices that are representative of market value, and of the particular markets to which they relate. Methodology documents describe the specifications for various products reflected by Platts assessments and indices, the processes and standards Platts adheres to in collecting data, and the methods by which Platts arrives at final values for publication.

Platts discloses publicly the days of publication for its price assessments and indices, and the times during each trading day in which Platts considers transactions in determining its assessments and index levels. This schedule of publication is available on the Platts website, at the following link: <https://www.spglobal.com/platts/en/our-methodology/holiday>.

The dates of publication and the assessment periods are subject to change in the event of circumstances that affect Platts ability to adhere to its normal publication schedule. Such circumstances include network outages, power failures, acts of terrorism and other situations that result in an interruption in Platts operations at one or more of its worldwide offices. In the event that any such circumstance occurs, Platts will endeavor, whenever feasible, to communicate publicly any changes to its publication schedule and assessment periods, with as much advance notice as possible.

Platts methodologies have evolved to reflect changing market conditions through time, and will continue to evolve as markets change. A revision history, a cumulative summary of changes to this and previous updates, is included at the end of methodology and specification documents. Methodology is reviewed regularly to ensure it reflects current market reality.

Such reviews are carried out by Platts reporters and their managers, supplemented and supported by price methodology specialists who operate separately from the reporting teams. Platts follows a clearly defined process for public consultation on material changes to its methodologies. This process is based on full transparency and communication with industry

stakeholders aimed at gaining market acceptance for any proposed introduction or changes to methodology. For more information on the review and approval procedures, please visit <https://www.spglobal.com/platts/en/our-methodology/methodology-review-change>.

All Platts methodologies reflect Platts commitment to maintaining best practices in price reporting.

### How this methodology statement is organized

This description of methodology for indices and assessments is divided into seven major parts (I-VII) that parallel the entire process of producing price values for the specified market period (daily or monthly).

- Part I describes what goes into Platts indices and price values, including details on what data market participants are expected to submit, the process for submitting data and criteria for timeliness of market data submissions.
- Part II describes any security and confidentiality practices that Platts uses in handling and treating data.
- Part III is a detailed account of how Platts collects market data, and what Platts does with the data to formulate its indices and assessments. It includes descriptions of the methods that Platts uses for reviewing data, and the methods used to convert raw data into indices or assessments, including the procedures used to identify anomalous data. This section describes how and when judgment is applied in this process, the basis upon which transaction data may be excluded from an index, and the relative importance assigned to each criterion used in forming the index or price assessment. This section describes the minimum amount of transaction data required for a particular price assessment to be published, and the criteria for determining which values are indices, and which are assessments, based on reported transactions and other market information.
- Part IV explains the process for verifying that published prices comply with Platts standards.

- Part V lays out the verification and correction process for revising published prices and the criteria Platts uses to determine when it publishes a correction.
- Part VI explains how users of Platts assessments and indices can contact Platts for clarification of data that has been published, or to register a complaint. It also describes how to find out more about Platts complaint policies.
- Part VII is a list of detailed specifications for the trading locations for which Platts publishes indices or assessments.

## PART I: DATA QUALITY AND DATA SUBMISSION

Platts objective is to ensure that the submission of transactional information and other data inputs that editors use as the basis for their price index and assessments is of the highest quality. This is crucial to maintaining the integrity of Platts pricing processes.

Platts encourages entities that submit any market data for consideration in its pricing processes to submit all transactional data that they have. Under price reporting guidelines issued by the US Federal Energy Regulatory Commission in 2003, which apply to US natural gas markets, companies should report each bilateral, arm's-length transaction between non-affiliated companies in the physical markets at all trading locations.

In North American gas markets, Platts establishes reporting relationships with market participants in which data is submitted from a central point in the mid- or back office (a segment of the reporting entity that does not have a commercial interest in the reported prices). Platts expects that a price submitter is making a good-faith effort to submit data completely and accurately, and will have staff assigned to respond to questions concerning data submissions. The entity also is obligated to make reasonable efforts to inform Platts of any errors or omissions.

For price indices and assessments at locations in Canada, which

fall outside FERC jurisdiction, Platts still expects entities will submit data under the same reporting guidelines.

### What to report

For final daily indices for Platts locations, report each business day all physical fixed-price deals completed prior to the industry nomination deadline (1 pm Central Time) for next-day pipeline delivery in North America. In addition, report all physical basis transactions at Florida city-gates at a differential to Florida Gas, Zone 3. Transactions done on Friday usually are for flow on Saturday, Sunday and Monday inclusive. Trading patterns may vary in the case of holidays or when the end of a month occurs on a weekend.

For preliminary and final monthly indices for Platts locations, report all physical fixed-price deals negotiated that day for delivery throughout the next month. Also report all physical basis deals in which the basis value is negotiated on any bidweek day prior to and including the day the near-month NYMEX gas futures contract expires and the price is set by the final settlement value of the NYMEX Henry Hub contract plus or minus the negotiated basis.

Trading in the North American gas market is relatively standardized. Traded gas packages are for pipeline-quality dry gas, with Btu content and other specifications generally specified by the pipeline companies. Gas is processed to those specifications before it is injected into the pipeline grid, removing the need for any normalization of specifications between supplies of varying gas quality. Prices are reported in US dollars per million Btu (MMBtu), except in the case of some Canadian locations where the units of measure are Canadian dollars per gigajoule (Gj). Volumes are stated as MMBtu/day or Gj/day.

All transactions submitted to Platts should be listed individually, and should use either the point's common name or the pipeline and meter designation. In addition to the delivery point, the data should also include the price, volume, source (company name), buy/sell indicator, trade date, start flow date, end flow date, time of transaction, counterparty name and intermediary name (broker

or trading platform). Platts accepts and uses data that does not include counterparty information. However, Platts firmly believes that counterparty data is the single best way to verify reported transactions and encourages market participants to report them.

As per FERC requirements, Platts expects physical trades to be reported for locations where it does not currently publish indices or assessments. If sufficient trading develops at a location and is sustained, Platts would consider adding that pricing point to its listed points. In addition, information on deals at those locations adds to Platts understanding of the market.

For both the daily and monthly indices, the Platts policy is not to include spread trades, with the exception of NGX Transport trades. Spread trades are excluded because the two counterparties are transacting based on the difference between the two linked transactions rather than on the outright values at the locations. Again, Platts encourages companies to report these transactions, provided they are clearly labeled as one arm of a spread transaction, in order for Platts to better understand market relationships, as well as to consider new pricing points for the marketplace. All spread trades, including NGX Transport trades, are subject to Platts anomalous data policies covered in this guide.

In the event that a data submitter has no trade information to submit, a notification stating that fact should be sent.

### How to report

Reports should be compiled and sent to Platts by a non-commercial department of the company. Even in the case of small entities, FERC's standards state that prices should be provided by individuals separate from trading activities such as accounting or bookkeeping staff.

Price submitters can submit trades in Excel or CSV format by uploading the files to the Platts Trade Vision platform through the following link: <https://tradevision.platts.com>. Price submitters can also email trades in Excel or CSV format to

[gasprice\\_daily@spglobal.com](mailto:gasprice_daily@spglobal.com) and [gasprice\\_daily2@spglobal.com](mailto:gasprice_daily2@spglobal.com) for daily trades and [gasprice\\_monthly@spglobal.com](mailto:gasprice_monthly@spglobal.com) and [gasprice\\_monthly2@spglobal.com](mailto:gasprice_monthly2@spglobal.com) for monthly trades.

The daily reporting deadline is 3:00 pm CT. The monthly reporting deadline is 3:00 pm CT on the first four days of bidweek and 2:00 pm CT on the final day of bidweek. Price submitters need to provide Platts with at least two contacts responsible for submissions who can answer questions about reported transactions. If a price submitter is unable to submit trade data by the submission deadline, it should notify Platts as soon as possible.

## PART II: SECURITY AND CONFIDENTIALITY

Platts is willing to sign confidentiality agreements providing for non-disclosure of submitted data except in circumstances where it is legally required to disclose the data.

Price data is e-mailed to specific Platts e-mail addresses and enters a secure network where it is accessible only by the natural gas pricing team and designated administrators. Data is stored in a secure network, in accordance with Platts policies and procedures. Transaction-level price data is used only for constructing indices and assessments. Platts does not use price data from an individual source for news reporting or analytics purposes, and Platts news reporters and analysts do not have access to individual entities' transaction reports. Data aggregated from all reporting sources e.g., changes in prices and trading volumes over time, may be used as the basis for news stories and analysis.

## PART III: CALCULATING INDICES AND MAKING ASSESSMENTS

The following section describes how Platts uses reported transactions and any other market information it has collected, in the manner described in Part I, to formulate its price indices and assessments.

## Price assessment and index guidelines

As a publisher, Platts places independence and impartiality at the heart of its pricing process. Platts has no financial interest in the price of the products or commodities on which it reports. Platts overall objective is to reflect the transactable value of the commodity assessed.

For North American gas, Platts publishes prices in two discrete markets: the day-ahead and the monthly bidweek markets. Platts prices are available to any party who subscribes to the news or data services in which those prices are published. Platts prices are copyrighted and may not be distributed or used for commercial gain by any third party without an explicit agreement with Platts.

To ensure the published data is as robust as possible, Platts editorial systems are backed by a strong corporate structure that includes managerial and compliance oversight.

## Daily market

**For the daily market, Platts publishes three price components:** the midpoint, the common range and the absolute range. The midpoint or index, also called the GDA (Gas Daily Average), is the volume-weighted average of all transactions submitted to Platts. The absolute range shows the absolute low and high of deals reported, excluding outliers that are not used (see section below on outliers). The common range is 50% of the absolute range and is built around the midpoint. Platts publishes prices to three decimal places for ranges and the midpoint, rounded to the nearest half-cent.

In the daily market, trading generally is done for gas to flow the next business day. Because gas volumes must be nominated to pipelines by 1 pm CT, the deadline established by the North American Energy Standards Board, to schedule next-day delivery, that time is the cutoff used by Platts for its daily gas indices. Gas typically trades on Friday for delivery Saturday, Sunday and Monday; in cases of three-day holiday weekends, trading typically covers the extra flow day. At times when the end of a month

falls on a weekend, the normal flow sequence may change. For instance, if the last day of the month falls on Saturday, gas will trade on Thursday for flow Friday-Saturday and on Friday, for flow Sunday-Monday. Platts publishes a daily gas flow date calendar in advance which can be found at: <https://www.spglobal.com/platts/en/our-methodology/methodology-specifications/natural-gas/north-american-natural-gas-methodology>.

In the event of a Canadian holiday falling on a Monday, daily gas indices for Northwest, Can. Bdr. (Sumas) and Westcoast, station 2 deals done on the Friday trade date are usually for flow Saturday-Tuesday, depending on the observance of the holiday by trading companies. Indices for those locations based on deals done on Friday for Saturday-Tuesday flow would be in publications dated Monday and would be republished Tuesday.

Platts reports both trade date and flow date data. Platts also publishes weekly and monthly averages of the daily midpoints for each location, using flow date data.

A formula is used to calculate the common range for preliminary and final daily indices for Platts and ICE locations. In most markets, the formula establishes the common range at 50% of the absolute range and builds the range around the volume-weighted average price (the midpoint). A volume-weighted price located more toward either end of the range may narrow the range further, as explained below.

An example of a common range calculation: On a given day, the lowest price, or absolute low, reported at a point was \$4.70/MMBtu and the high was \$4.92/MMBtu. The actual volume-weighted average was \$4.843/MMBtu. The calculation follows this sequence:

The volume-weighted average is rounded to the nearest half-cent, so \$4.843/MMBtu becomes \$4.845/MMBtu (the midpoint).

The width of the absolute range is calculated, so  $\$4.92/\text{MMBtu} - \$4.70/\text{MMBtu} = \$0.22/\text{MMBtu}$ ; that figure is divided by 4, which produces an increment of \$0.055/MMBtu.

That increment is subtracted and added to the rounded volume-weighted average to produce a common low and high; so,  $\$4.845/\text{MMBtu} - \$0.055/\text{MMBtu} = \$4.79/\text{MMBtu}$ , and  $\$4.845/\text{MMBtu} + \$0.055/\text{MMBtu} = \$4.90/\text{MMBtu}$ .

As part of its North American Natural Gas agreement with ICE, Platts publishes preliminary and final daily indices for Platts locations, as well as final daily indices for ICE locations. The methodology used to derive indices for Platts locations is different than ICE locations.

In relation to the Canadian Enerdata, Ltd. acquisition in September 2019, Platts publishes ICE-NGX contracts for same day, next day, and in the case of AB-NIT, yesterday delivery in the Canadian natural gas market. These ICE NGX contracts are confined to Canadian and US border locations. See the NGX website for methodology and a complete list of locations. Platts publishes monthly indices for ICE locations based on trades executed on the ICE exchange.

### Preliminary Daily Indices For Platts Locations:

Platts publishes preliminary daily indices for Platts locations shortly after the 1:00 pm CT market close. The only trade data used in these indices are ICE exchange trades from ICE. Both the buy and sell side of ICE exchange trades are counted in the indices, regardless of whether the counterparties are Platts price submitters. The trades are not screened for outliers and Platts does not assess prices for locations with no trades.

### Final Daily Indices For Platts Locations:

Platts publishes final daily indices for Platts locations around 5:00 pm CT. Platts price submitter trades and non-Platts price submitter ICE exchange trades are used in these indices.

Platts price submitter ICE trades are removed from the ICE trade data to eliminate double counting. Both the buy and sell side of ICE trades will be counted in the indices. For trades not done on ICE, only the buy or sell side reported by the price submitter will be counted in the indices. The trades are screened for outliers using existing mechanisms as well as verifying trade data that

occurs outside of the transparent trading range observed on the ICE exchange. At locations with robust trading activity, the index is the volume-weighted average of all trades. However, the volume-weighted average price does not always represent the average of the trading activity. Therefore, in less liquid or highly volatile markets, Platts may look at other means of determining an index price, which could include but is not limited to, the median and average of the median and volume weighted average. Platts will attempt to assess prices for locations with no trades, where viable. Platts will examine other market information to determine whether it can publish an assessment. These assessments are clearly designated by asterisks in price tables and include an assessment rationale that describes how the price was derived. Assessments are based on other market information, including but not limited to, an analysis of historical daily prices, locational spread relationships to values at related liquid pricing points, and ICE physical bids and offers. The use of other market information and its application varies according to levels of liquidity and volatility at assessed locations. If it is not possible to determine an index or assess a price, Platts will not publish a price for the day.

The Federal Energy Regulatory Commission mandates that a data provider register with FERC and all market participants open themselves to potential audit by that authority. FERC requires that all registered entities submit all their physical, arms-length trades to a PRA such as Platts. For index calculations in a location with data submitted by only one entity on either the buy and/or sell side there will be at least one other counterparty in the trade. As such no single counterparty could represent greater than 50 per cent of the volume of an index at a single location. Any percentage higher than 50% would constitute a significant proportion of the index. Platts will only count one leg of a transaction if it was not executed on the ICE exchange even though there were two arms-length counterparties to the transaction. In the instances where Platts determines that an index cannot be calculated and decides to make an assessment of value, Platts will use various indicators of value such as location spreads, historical trends and bids and offers observed

on the ICE exchange. FERC requires that the front-office does not submit any market information including bid and offers to a PRA. ICE bid and offer data, which is anonymous, does not allow for the determination of what percentage a potential contributor would make up in an assessment.

#### **Final Daily Indices For ICE Locations:**

Platts publishes daily indices for ICE locations once each day at the same time that preliminary daily indices for Platts locations are published, or shortly after the 1:00 pm CT. The only trade data used in these indices are ICE exchange trades from ICE. Both the buy and sell side of ICE exchange trades are counted in the indices, regardless of whether the counterparties are Platts price submitters. The trades are not screened for outliers and Platts does not assess prices for locations with no trades.

#### **Canadian OTC Daily Locations.**

The daily OTC indices will be published as soon as all daily trades have been submitted by price submitters and Platts has reviewed the trades for anomalous data. Please note that transactions executed on the ICE NGX exchange will not be included in the indices as the intention behind these locations is to increase transparency around trading activity in the OTC markets in Canada. Platts publishes the OTC indices for the TCPL Alberta, AECO-C; Dawn, Ontario; Westcoast Station 2; Northwest, Canadian Border (Sumas); and Emerson, Viking locations.

#### **Gas Indices Americas (GIA)**

The Platts – ICE Gas Indices Americas (GIA) natural gas indices are based on next day physical natural gas prices. Trading in the North American gas market is relatively standardized. Traded gas packages are for pipeline-quality dry gas, with Btu content and other specifications generally specified by the pipeline companies. Gas is processed to those specifications before it is injected into the pipeline grid, removing the need for any normalization of specifications between supplies of varying quality gas. Prices are reported in US dollars per million Btu (MMBtu), except in the case of some Canadian locations where the units of measure are Canadian dollars per gigajoule (Gj).

Volumes are stated as MMBtu/day or Gj/day.

Platts publishes an index price for GIA North America as well as the GIA Northeast, GIA South, GIA Midwest, and GIA West regions. Prices are published to three decimal places.

GIA indices reflect next day physical fixed price trades on the business day prior to delivery as reported to Platts by price submitters and the Intercontinental Exchange, with the exception of the TCPL Alberta, AECO and Dawn, Ontario locations which trade on NGX. Platts uses the NGX index prices for these locations, and converts the TCPL Alberta, AECO location from Canadian dollars to US dollars at the Bank of Canada 4:30 Eastern Time daily exchange rate (Platts symbol BCUSD00).

#### **Final Daily CGPR Locations.**

In relation to the Canadian Enerdata Ltd. acquisition of September 2019, Platts publishes final daily CGPR indices for all physical same day, next day, and in the case of AB-NIT, yesterday ICE-NGX contracts traded on the ICE – Natural Gas Exchange (NGX) in the Canadian natural gas market, including US border locations. These indices are published shortly after ICE-NGX contracts settle around 6:00pm Central. The only trade data used in these indices are ICE-NGX exchange trades from NGX. The trades are not screened for outliers and Platts does not assess prices for locations with no trades. For day ahead weekend and holiday flows, the volumes will reference volumes for each day of the flow window, and not an aggregate for entire flow window.

#### **Monthly market**

In the monthly market, gas is priced for flow on each day of the month at specified volumes. Transaction data is collected for the last five business days of the month, commonly referred to as bidweek, and Platts prices are published on the first business day of the month in which the gas will flow. Platts publishes two price components: the index and the absolute range. The index is the volume-weighted average of all the transactions submitted to Platts that are used to calculate the index for each point.

The absolute range shows the absolute low and high of deals submitted, excluding outliers that are not used (see section below on outliers). Platts publishes fixed prices to two decimal places and basis prices to three decimal places.

In the monthly market Platts uses both physical fixed-price and physical basis transactions. In those basis transactions, the basis value is negotiated on any bidweek day prior to and including the day the near-month NYMEX gas futures contract expires and the price is set by the final settlement value of the NYMEX contract plus or minus the negotiated basis. The NYMEX futures contract typically expires on the third-to-last business day of the month.

As part of its North American Natural Gas agreement with ICE, Platts publishes preliminary and final monthly indices for Platts and ICE locations. The methodology used to derive indices for Platts locations is different than ICE locations.

In relation to the Canadian Enerdata, Ltd. acquisition in September 2019, Platts publishes all ICE-NGX contracts for next-month delivery in the Canadian natural gas market. These ICE NGX contracts are confined to Canadian and US border locations. See the NGX website for methodology and a complete list of locations. Platts publishes monthly indices for ICE locations based on trades executed on the ICE exchange.

#### **Preliminary Monthly Indices for Platts Locations:**

Platts publishes preliminary monthly indices for Platts locations at the end of each day during bidweek. Only ICE exchange trades received from ICE are used in these preliminary monthly indices. Both the buy and sell side of ICE exchange trades from ICE will be counted in the indices, regardless of whether the counterparties are Platts price submitters. The trades are not screened for outliers and Platts does not assess prices for locations with no trades. Beginning March 2020 bidweek bilateral transactions are no longer included in these indices. Although, bilateral transactions are still included in the Final Monthly Indices.

#### **Preliminary Monthly Indices For ICE Locations:**

Platts publishes preliminary monthly indices for ICE locations at the same time as the preliminary monthly indices for Platts locations. The only trade data used in these indices are ICE exchange trades from ICE. Both the buy and sell side of ICE exchange trades are counted in the indices, regardless of whether the counterparties are Platts price submitters. The trades are not screened for outliers and Platts does not assess prices for locations with no trades.

#### **Final Monthly Indices For Platts Locations:**

Platts publishes final monthly indices for Platts locations around noon on the first business day of the month. Platts price submitter trades and non-Platts price submitter ICE exchange trades are used in these final indices.

Platts price submitter ICE trades are removed from the ICE trade data to eliminate double counting. Both the buy and sell side of ICE trades will be counted in the indices. For trades not done on ICE, only the buy or sell side submitted by the price submitter will be counted in the indices. Platts screens for outlying data using existing mechanisms as well as verifying trade data that occurs outside of the trading range observed on the ICE exchange. At locations with robust trading activity, the index is the volume-weighted average price of all trades. However, the volume-weighted average does not always represent the average of the trading activity. Therefore, in less liquid or highly volatile markets, Platts may look at other means of determining an index price, which could include but is not limited to, the median and average of the median and volume weighted average. Platts will attempt to assess prices for locations with no trades, where viable. Platts will examine other market information to determine whether it can publish an assessment. These assessments are clearly designated by asterisks in price tables and include an assessment rationale that describes how the price was derived. Assessments are based on other market information, including but not limited to, an analysis of historical bidweek prices, locational spread relationships to values at related liquid pricing points, ICE physical bids and offers during bidweek, implied physical values derived from financial swaps and derivative

index deals, and daily market trading during bidweek. The use of other market information and its application varies according to levels of liquidity and volatility at assessed locations. If it is not possible to determine an index or assess a price, Platts will not publish a price for the day.

The Federal Energy Regulatory Commission mandates that a data provider register with FERC and all market participants open themselves to potential audit by that authority. FERC requires that all registered entities submit all their physical, arms-length trades to a PRA such as Platts. For index calculations in a location with data submitted by only one entity on either the buy and/or sell side there will be at least one other counterparty in the trade. As such no single counterparty could represent greater than 50 per cent of the volume of an index at a single location. Any percentage higher than 50% would constitute a significant proportion of the index. Platts will only count one leg of a transaction if it was not executed on the ICE exchange even though there were two arms-length counterparties to the transaction. In the instances where Platts determines that an index cannot be calculated and decides to make an assessment of value, Platts will use various indicators of value such as location spreads, historical trends and bids and offers observed on the ICE exchange. FERC requires that the front-office does not submit any market information including bid and offers to a PRA. ICE bid and offer data, which is anonymous, does not allow for the determination of what percentage a potential contributor would make up in an assessment.

#### **Final Monthly Indices For ICE Locations:**

Platts publishes monthly indices for ICE locations at the same time as the final monthly indices for Platts locations. The only trade data used in these indices are ICE exchange trades from ICE. Both the buy and sell side of ICE exchange trades are counted in the indices, regardless of whether the counterparties are Platts price submitters. The trades are not screened for outliers and Platts does not publish prices for locations with no trades.

To enhance market transparency, Platts publishes the volumes and number of transactions at each trading point in the daily

and monthly price index. To provide a broad overview of market liquidity, Platts locations are grouped in the final monthly process into three tiers: tier 1, points with volumes of at least 100,000 MMBtu/day and at least 10 trades; tier 2, volumes of 25,000 to 99,999 MMBtu/day and at least five trades; and tier 3, points with volumes below 25,000 MMBtu/day and/or fewer than five trades. Volumes, deal counts, and tier level for all monthly index locations are published in the Liquidity in North American Monthly Gas Markets table found at: [https://www.spglobal.com/platts/plattscontent/\\_assets/\\_files/en/our-methodology/methodology-specifications/tiers.xlsx](https://www.spglobal.com/platts/plattscontent/_assets/_files/en/our-methodology/methodology-specifications/tiers.xlsx).

Platts also publishes the physical basis prices that are incorporated into the overall monthly market indices and ranges. The physical basis data shows the volume, deal count, low price, high price, average price, and cash equivalent price for each location at which physical basis deals are reported.

#### Canadian OTC Monthly Locations.

The monthly OTC indices are published on the last day of bidweek, as soon as all bidweek trades have been submitted by price submitters and Platts has reviewed the trades for anomalous data. Please note that transactions executed on the ICE NGX exchange are not included in the indices as the intention behind these locations is to increase transparency around trading activity in the OTC markets in Canada. Platts will publish the OTC indices for the TCPL Alberta, AECO-C; Dawn, Ontario; Westcoast Station 2; Northwest, Canadian Border (Sumas); and Emerson, Viking locations.

#### Final Monthly CGPR Locations.

In relation to the Canadian Enerdata Ltd. acquisition of September 2019, Platts publishes final monthly CGPR indices for all physical next-month delivery ICE-NGX contracts in the Canadian natural gas market, including US border locations. These indices are based on trading activity in the final five business days of the month for delivery next month, and adhere to the ICE-NGX bidweek calendar. These indices are published on the first business day of the month around 12:00pm Central.

The only trade data used in these indices are ICE-NGX exchange trades from NGX. The trades are not screened for outliers and Platts does not assess prices for locations with no trades.

#### **Outliers**

Platts analyses reported transactions in order to identify potential anomalous data that may be excluded from the index. This analysis includes a comparison of the trade price with bid, offer, and transaction data on the ICE exchange. Platts believes that ICE exchange data represents transparent and market tested values. Therefore, the ICE exchange trading range is a key indicator for identifying anomalous data. Other analysis includes, but is not limited to, standard deviation from the mean, volume, and gaps in trade prices. Platts editors will contact the price submitter for more specifics on the potential anomalous transaction.

Gaps in the market price are not inherently anomalous. They warrant closer analysis, and may not be reflected in the final published indices. Examples of potentially anomalous data could include information that might be outside normal market practice, transactional data containing unusual contractual terms, information that is incomplete (lacking full confirmation, or important details), and/or information that otherwise deviates from the Platts methodology.

#### **Regional and national averages**

Regional average prices are calculated in the daily and monthly markets. Each regional average price represents a straight average of the index prices at all hubs listed under a region, with exceptions in the Northeast, Upper Midwest, Southwest and Rockies/Northwest sections.

In the Northeast, the Transco, Zone 6 non-NY North and Transco, Zone 6 non-NY South indices, Transco, zone 5 delivered North and Transco, zone 5 delivered South indices, and Tennessee, Zone 6, delivered North and Tennessee, Zone 6, delivered South indices are not included in the regional average because transactions

at both locations are included in the Transco, Zone 6 Non-New York index, Transco, zone 5 delivered index, and the Tennessee, zone 6 delivered index, respectively. In the Upper Midwest, the three Chicago sublistings of Chicago-Nicor, Chicago-NIPSCO and Chicago-Peoples are not included because transactions at those locations are also included in the Chicago city-gates average. In the Southwest, the El Paso, West Texas sublisting is not included because transactions at this location are also included in the El Paso, Permian Basin index. In the Rockies/Northwest section, the prices at AECO and Westcoast, Station 2 are not included as trading is reported in Canadian dollars.

The national average price is a straight average of all published Platts pricing hubs, with the exceptions of the Transco, Zone 5 North and South sublistings, Transco, Zone 6 non-NY North and non-NY South sublistings, Tennessee, Zone 6, delivered North and South sublistings, the Chicago sublistings, El Paso, West Texas, and the Western Canadian points AECO and Westcoast, Station 2.

## **PART IV: PLATTS EDITORIAL STANDARDS**

All Platts employees must adhere to the S&P Global Code of Business Ethics (COBE), which has to be signed annually. The COBE reflects S&P Global's commitment to integrity, honesty and acting in good faith in all its dealings.

In addition, Platts requires that all employees attest annually that they do not have any personal relationships or personal financial interests that may influence or be perceived to influence or interfere with their ability to perform their jobs in an objective, impartial and effective manner.

Market reporters are required to ensure adherence to published methodologies as well as internal standards that require accurate records are kept in order to document their work.

Platts has a Compliance function that is independent of the editorial group. The Compliance team is responsible for

ensuring the quality and adherence to Platts policies, standards, processes and procedures. The Compliance team conducts regular assessments of editorial operations, including checks for adherence to published methodologies.

S&P Global Platts appoints an independent, external auditor with appropriate experience and capability to review and report on its adherence to this stated methodology. The annual report is published online at <https://www.spglobal.com/platts/en/aboutplatts/regulatory-engagement>.

## PART V: CORRECTIONS

Platts is committed to promptly correcting any material errors to published values. When corrections are made, they are generally based on data and information that was available when the index or assessment was originally calculated. Platts expects that data submissions are complete and accurate, and hence errors on either account may be considered a sufficient reason to correct the index.

Platts makes every effort to contact price submitters prior to publication in order to verify potential anomalous data. Should Platts be unable to contact a price submitter or receive confirmation, the attempts to do so are logged and a decision as to

whether to include or exclude the data in the index will be made.

Data and information received after indices have been published, may also be considered for an index correction, if the original transaction price, volume or location has changed, or has been canceled or confirmed as non-standard.

If Platts is notified of an error in a submission, after an index is calculated and published, it will assess the impact of that error. Platts will consider correcting an index, as a result of the error, typically up to and including 10 business days following the original date of publication of the index.

Errors that price submitters should report to Platts include but are not limited to, inaccuracies or omissions, in part or in full, in the attributes (price, volume, location, etc.) at the time the transaction was done and reported to Platts. They do not include operationally driven or after-the-fact changes in the nature of the transaction. For instance, if an interruption in transportation service forces two counterparties to alter flows and delivery points, Platts does not consider that those changes require an index to be corrected so long as the price, volume and location information originally submitted to Platts accurately reflected those attributes at the time the trade was made and submitted to Platts.

## PART VI: REQUESTS FOR CLARIFICATIONS OF DATA AND COMPLAINTS

Platts strives to provide critical information of the highest standards, to facilitate greater transparency and efficiency in commodity markets.

Platts users raise questions about its methodologies and the approach taken in pricing, proposed methodology changes and other editorial decisions in relation to Platts price assessments or indices. Platts strongly values these interactions and encourages dialogue concerning any questions a market participant or stakeholder may have.

However, Platts recognizes that occasionally a market participant may not be satisfied with responses received or the services provided by Platts and wish to escalate matters. Full information about how to contact Platts to request a clarification around an assessment, or make a complaint, is available on the Platts website, at: <https://www.spglobal.com/platts/en/contact/complaints>.

## PART VII: DEFINITIONS OF THE TRADING LOCATIONS FOR WHICH PLATTS PUBLISHES DAILY AND MONTHLY INDICES OR ASSESSMENTS

The following North American natural gas specifications guide contains the primary price point specifications for Platts natural gas indices and assessments in North America.

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

Points are listed alphabetically within eight regions: Northeast, Appalachia, Midcontinent, Upper Midwest, East Texas, Louisiana/Southeast, Rockies/Northwest, and Southwest. For the daily market, symbols are listed for the common range (high, low, midpoint, volume), absolute range (high, low) and deal count for both the trade date and flow date(s), the weekly average and the monthly average. For the monthly market, symbols are listed for bidweek prices (high, low, index, volume) and the deal count, and for physical basis transactions, the high, low, average, volume, deal count and cash equivalent price are listed. Platts uses physical basis transactions only at specified locations (see Part III). Basis symbols are not shown for locations where physical basis transactions have not been submitted. Symbols also are listed for the location's tier in the monthly market.

This methodology is current at the time of publication. Platts may issue further updates and enhancements to this methodology and will announce these to subscribers through its usual publications of record. A revision history, a cumulative summary of changes is included at the end of this section.

### Northeast

#### Algonquin, city-gates (daily and monthly market)

Deliveries from Algonquin Gas Transmission to all distributors and end-use facilities in Connecticut, Massachusetts and Rhode Island.

#### Algonquin, receipts (daily market only)

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

#### Dracut, Mass. (daily market only)

Deliveries into Tennessee Gas Pipeline at the Dracut interconnect with Maritimes & Northeast Pipeline near Middlesex, MA. Dracut also includes gas entering from Portland Natural Gas Transmission System.

#### Iroquois, receipts (daily and monthly market)

Deliveries into Iroquois Gas Transmission System at the US-Canadian border at the Waddington interconnect with TC Energy (formally TransCanada) pipelines.

#### Iroquois, zone 1 (daily market only)

Deliveries from Iroquois Pipeline starting at, but not including, Waddington, New York and extending to and including Iroquois interconnection with the Tennessee Gas Pipeline Company at Wright, New York.

#### Iroquois, zone 2 (daily and monthly market)

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

#### Niagara (daily and monthly market)

Cross-border deliveries to and from TC Energy pipelines and the Niagara spur and loop lines, a border-crossing point between eastern Canada and the northeastern United States, north of Niagara Falls, NY Niagara Spur Loop line and Niagara Spur line interconnects are with Tennessee Gas Pipeline, National Fuel Gas Supply, Dominion Transmission and Texas Eastern Transmission.

#### Tennessee, Zone 5 (200 leg) (daily market only)

Deliveries from Tennessee Gas Pipeline Zone 5, downstream of compressor station 245 extending to and including station 254.



**Tennessee, zone 6 delivered (daily and monthly market)**

Deliveries from Tennessee Gas Pipeline on the 200 leg in Connecticut, Massachusetts, Rhode Island and New Hampshire.

**Tennessee, Zone 6, delivered North (daily and monthly market)**

Deliveries from Tennessee Gas Pipeline on the 200 leg on all legs east of Station 267 in Massachusetts and New Hampshire excluding the Hopkinton to Gloucester Lateral which begins in Hopkinton, passes through Lexington, Burlington, Wilmington, Somerville, Beverly Salem and ends in Gloucester, Massachusetts.

**Tennessee, Zone 6, delivered South (daily and monthly market)**

Deliveries from Tennessee Gas Pipeline on the 200 leg on all legs west of Station 267 in Massachusetts and New Hampshire.

**Tennessee, zone 6 (300 leg) delivered (daily)**

Deliveries from Tennessee Gas Pipeline on 300 leg in Connecticut.

**Texas Eastern, M-3 (daily and monthly market)**

Deliveries from Texas Eastern Transmission beginning at the outlet side of the Delmont compressor station in Westmoreland County, PA, easterly to all points in the M3 market zone, except for deliveries to Transcontinental Gas Pipe Line at Lower Chanceford.

**Transco, zone 5 delivered (daily and monthly market)**

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.

**Transco, zone 5 delivered North (daily market only)**

Deliveries from Transcontinental Gas Pipe Line on the 30-inch, 36-inch and 42-inch lines north of Station 165 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. Transactions are also included in the Transco, zone 5 delivered index.

**Transco, zone 5 delivered South (daily and monthly market)**

Deliveries from Transcontinental Gas Pipe Line on the 30-inch, 36-inch and 42-inch lines from the Georgia-South Carolina border up to and including Station 165 in Virginia. Deliveries from Transco north of Station 165 are not included. Transactions are also included in the Transco, zone 5 delivered index.

**Transco, zone 6 non-N.Y. (daily and monthly market)**

Deliveries from Transcontinental Gas Pipe Line from the start of zone 6 at the Virginia-Maryland border to the Linden, NJ, 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, zone 6 non-N.Y. North (daily and monthly market)**

Deliveries from Transcontinental Gas Pipe Line from Station 195 in York, Pennsylvania, to the Linden, New Jersey, compressor station and on the Leidy Line south of Clinton County, Pennsylvania. The non-New York North point does not include deliveries to Public Service Electric and Gas in New Jersey, whose supply is taken downstream of Linden. Transactions are also included in the Transco, zone 6 non-NY index.

**Transco, zone 6 non-N.Y. South (daily and monthly market)**

Deliveries from Transcontinental Gas Pipeline from the start of zone 6 at the Virginia-Maryland border to Station 195 in York, Pennsylvania. Transactions are also included in the Transco, zone 6 non-NY index.

**Transco, zone 6 N.Y. (daily and monthly market)**

Deliveries from Transcontinental Gas Pipe Line at the end of zone 6 into city-gates downstream of Linden, NJ, for New York City area distributors.

**Appalachia****Columbia Gas, Appalachia (daily and monthly market)**

Deliveries in Columbia Gas Transmission's Interruptible Paper Pool (IPP pool) from any source on Columbia Gas. Deliveries in the IPP pool, which is also known as the "TCO Pool" can originate from any source delivered into Columbia Gas' system.

**Columbia Gas, Appalachia (Non-IPP) (daily and monthly market)**

Deliveries to Columbia Gas Transmission from on-system production locations that are restricted from Columbia's IPP pool (TCO pool). This pricing location does not include transactions for gas delivered to Columbia from interconnects with other interstate pipeline systems.

**Dominion, North Point (daily market only)**

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, NY

### **Dominion, South Point (Dominion, Appalachia in monthly market) (daily and monthly market)**

**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.

### **Lebanon Hub (daily and monthly market)**

Deliveries to or from Texas Gas Transmission, ANR Pipeline, Texas Eastern Transmission, Panhandle Eastern Pipe Line, Columbia Gas Transmission, Dominion Gas Transmission and Rockies Express Pipeline at interconnects in the Lebanon, OH, area.

### **Leidy Hub (daily and monthly market)**

Deliveries into and from Dominion Transmission, National Fuel Gas Supply, Columbia Gas Transmission, Texas Eastern Transmission and Transcontinental Gas Pipe Line in the vicinity of the Leidy storage facility in Clinton County, PA.

### **Millennium, East receipts (daily and monthly market)**

Receipts into Millennium Pipeline downstream of the Corning compressor station in Steuben County, NY, and upstream of the Ramapo interconnect with Algonquin Gas Transmission in Rockland County, NY.

### **Tennessee, zone 4-200 leg (daily and monthly market)**

Deliveries into Tennessee Gas Pipeline 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.

### **Tennessee, zone 4-300 leg (daily and monthly market)**

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

### **Tennessee, zone 4-313 Pool (daily and monthly market)**

Transactions at Station 313 in Potter County, Pennsylvania, on Tennessee Gas Pipeline's Zone 4 300 Leg.

### **Texas Eastern M-2, receipts (daily and monthly market)**

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, PA, 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.)

### **Transco, Leidy Line receipts (daily and monthly market)**

Receipts into Transcontinental Gas Pipe Line's Leidy Line downstream of the Leidy and Wharton storage facilities in Clinton and Potter counties, PA, to Transco's station 505 in Hunterdon County, NJ. 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.

## **Midcontinent**

### **ANR, Okla. (daily and monthly market)**

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

### **Enable Gas, East (daily and monthly market)**

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, OK, and Bolivar County, MS. The flex (or neutral) pooling area in Oklahoma comprises all of Pushmataha, Latimer, Haskell and Pittsburg counties and the northeast section of Atoka County.

### **NGPL, Amarillo receipt (daily market only)**

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

### **NGPL, Midcontinent (daily and monthly market)**

Deliveries into Natural Gas Pipeline Co. of America starting at compressor station 155 in Wise County, TX, 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, NE. 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.

**Oneok, Okla. (daily and monthly market)**

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.

**Panhandle, Tx.-Okla. (daily and monthly market)**

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, KS, compressor station. Deliveries to Panhandle at the Haven pooling point — the demarcation between Panhandle's field and market zones — are not included.

**Southern Star, Tx.-Okla.-Kan. (daily and monthly market)**

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.

**Texas Eastern, M-1 24-inch (daily market only)**

Deliveries to Texas Eastern's 24-inch line downstream of the Little Rock, AR, compressor station to the Illinois-Indiana state line.

**Upper Midwest****Alliance, into interstates (daily market only)**

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, ML 7 (daily and monthly market)**

Deliveries into ANR Pipeline in its northern market zone starting at the Sandwich, IL, compressor station at the terminus of the Southwest mainline north through Wisconsin to the Crystal Falls, MI, 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, MI., station to the Orient, MI, station.

**Chicago city-gates (daily and monthly market)**

Deliveries into the Nicor Gas, Peoples Gas Light & Coke, North Shore Gas and Northern Indiana Public Service city-gates in the Chicago metropolitan area.

**Chicago-Nicor (daily and monthly market)**

Deliveries into the Nicor Gas system in the Chicago metropolitan area. Transactions are also included in the Chicago city-gates index.

**Chicago-NIPSCO (daily and monthly market)**

Deliveries into the Northern Indiana Public Service system in the Chicago metropolitan area. Transactions are also included in the Chicago city-gates index.

**Chicago-Peoples (daily and monthly market)**

Deliveries into the Peoples Gas Light & Coke system in the Chicago metropolitan area. Transactions are also included in the Chicago city-gates index.

**Consumers Energy city-gate (daily and monthly market)**

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

**Dawn, Ontario (daily and monthly market)\***

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

**Emerson, Viking GL (daily and monthly market)\***

Deliveries into Great Lakes Gas Transmission from TC Energy pipelines at the Emerson 2 meter station at the US-Canadian border at Emerson, Manitoba, and deliveries into Viking Gas Transmission from Canadian Mainline at the Emerson 1 station.

**MichCon city-gate (daily and monthly market)**

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, MI, 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.

---

\*Canadian pricing point, outside of FERC jurisdiction

**Northern Border, Ventura Transfer Point (daily and monthly market)**

Deliveries on Northern Border Pipeline 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 at the Northern Natural/Northern Border Ventura interconnect (DRN#4680).

**Northern, demarcation (daily and monthly market)**

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

**Northern, Ventura (daily and monthly market)**

Deliveries to Northern Natural Gas at Ventura in Hancock County, IA.

**REX, Zone 3 delivered (daily and monthly market)**

Deliveries from Rockies Express Pipeline to Natural Gas Pipeline Co. of America pipeline at the Moultrie County, IL interconnect; to Midwestern Gas Transmission at the Edgar County, IL interconnect; to ANR Pipeline at the Shelby County, IN interconnect; to the Trunkline system at the Douglas County, IL interconnect; and to the Panhandle Eastern Pipe Line at the Putnam County, IN interconnect.

**Rover, delivered (daily and monthly market)**

Deliveries from Rover Pipeline into ANR Pipeline and Panhandle Eastern Pipeline in Defiance County, Ohio.

**East Texas****Agua Dulce Hub (daily market only)**

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, Enterprise Texas, and NET Mexico at the Agua Dulce Hub in Nueces County, TX, about 20 miles west-southwest of Corpus Christi. Deliveries from the ExxonMobil King Ranch plant are included.

**Carthage Hub (daily market only)**

Deliveries into Enable East, 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.

**Florida Gas, zone 1 (daily and monthly market)**

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

**Houston Ship Channel (daily and monthly market)**

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 Enterprise Texas pipeline.

**Katy (daily and monthly market)**

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

**NGPL, S. Texas (daily and monthly market)**

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

**NGPL, Texok zone (daily and monthly market)**

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 NGPL from the Louisiana-Texas border westward to compressor station 302 in Montgomery County, TX, and northward to the interconnect with the Gulf Coast Mainline receipt zone in Cass County, TX. The "Texok Gulf Coast Pooling Point" is included in this posting, but the "Texok A/G Pooling Point" is not. Trades at ICE locations ICE Bennington, Oklahoma and ICE NGPL, TXOK West Pool are excluded from this location.

**Tennessee, zone 0 (daily and monthly market)**

Deliveries into Tennessee Gas Pipeline's 100 leg from the Mexico Texas border to Compressor Station 40 in Natchitoches, Louisiana, including all points of receipts on the Carthage Line No. 701-1 up to but not including transactions done at Carthage Hub in Panola County, Texas.

**Texas Eastern, E. Texas (daily and monthly market)**

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

**Texas Eastern, S. Texas (daily and monthly market)**

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

**Transco, zone 1 (daily and monthly market)**

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

**Transco, zone 2 (daily and monthly market)**

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

**Louisiana/Southeast****ANR, La. (daily and monthly market)**

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.

**Columbia Gulf, La. (daily and monthly market)**

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 (daily and monthly market)**

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 city-gates (daily market only)**

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. Also included in the development of Florida city-gates daily index are basis deals done within the defined Florida city-gates methodology at a differential to Florida Gas, Zone 3 final daily index.

**Florida Gas, zone 2 (daily and monthly market)**

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 (daily and monthly market)**

Deliveries into Florida Gas Transmission downstream of compressor station 8 to just upstream of station 12 in Santa

Rosa County, FL., the demarcation point with the market area. Includes deliveries between stations 8 and 12, including Mobile Bay deals into Florida Gas.

**Henry Hub (daily and monthly market)**

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.

**Pine Prairie Hub (daily and monthly market)**

Deliveries into and out of interstate and intrastate pipelines at the Pine Prairie header system in Louisiana. Pipelines include Tennessee Gas Pipe Line, Transcontinental Gas Pipe Line, Texas Eastern Transmission, Columbia Gulf Transmission, Texas Gas Transmission, Florida Gas Transmission, ANR Pipeline, and Kinder Morgan Louisiana Pipeline. Included are deliveries and receipts into and out of Pine Prairie storage.

**Southern Natural, La. (daily and monthly market)**

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.

**Tennessee, Zone 1 (daily market only)**

Deliveries into Tennessee Gas Pipeline 100 Leg between Natchitoches, Louisiana and Portland, Tennessee.

**Tennessee, La., 500 leg (daily and monthly market)**

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 Zone 1 at station 534 at Purvis, MS.

### **Tennessee, La., 800 leg (daily and monthly market)**

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.

### **Texas Eastern, E. La. (daily and monthly market)**

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

### **Texas Eastern, W. La. (daily and monthly market)**

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. Includes deliveries from Texas Eastern's offshore Cameron Line at the Gillis, LA compressor station.

### **Texas Eastern, M-1 30-inch (Kosi) (daily and monthly market)**

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

### **Texas Gas, zone SL (daily and monthly market)**

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 Terrebonne Parish to Eunice. Zone SL extends to the vicinity where Texas Gas crosses the Red River in Rapides Parish.

### **Texas Gas, zone 1 (daily and monthly market)**

Deliveries into Texas Gas Transmission starting just south of the Pineville, LA compressor station in Rapides Parish north to Crockett County, TN.

### **Transco, zone 3 (daily and monthly market)**

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, zone 4 (daily and monthly market)**

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, AL, the only zone 4 pooling point.

### **Trunkline, La. (monthly market only)**

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

### **Trunkline, E. La. (daily market only)**

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, W. La. (daily market only)**

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. Includes deliveries at the Kaplan compressor station, which demarcates the WLA and ELA zones.

### **Trunkline, zone 1A (daily and monthly market)**

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

## **Rockies/Northwest**

### **Cheyenne Hub (daily and monthly market)**

Deliveries into Trailblazer Pipeline, Public Service Co. of Colorado and Colorado Interstate Gas in the vicinity of the Cheyenne Hub in northeast Colorado.

### **CIG, Rocky Mountains (daily and monthly market)**

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, WY to the Elk Basin station in Park County, WY. Not included are deliveries into CIG's system at points south of Cheyenne, WY.

### **GTN, Kingsgate (daily market only)**

Deliveries into Gas Transmission Northwest from Foothills Pipeline at the Kingsgate interconnection at the US-Canadian border in Boundary County, ID. The system was previously known as PG&E Gas Transmission, Northwest.

**Kern River/Opal plant (daily market only)**

Deliveries into Kern River Gas Transmission at the Opal, WY, 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 is not nominated into a specific pipeline is included in the daily Kern River-Opal plant pricing point.

**Kern River, Wyoming (monthly market only)**

Deliveries into Kern River Gas Transmission anywhere in Wyoming. Transactions done at Opal, WY 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

**Northwest, Canadian border (Sumas) (daily and monthly market)\***

Deliveries into Northwest Pipeline from Westcoast Energy at the Sumas, WA.-Huntington, British Columbia, interconnection at the US-Canadian border.

Northwest, Rocky Mountain Pool (daily market only)

Deliveries into Northwest Pipeline from the Green River, WY compressor station to the Moab compressor station in San Juan County, Utah. Not included are transactions done at White River Hub.

\*Canadian pricing point, outside of FERC jurisdiction

**Northwest, S. of Green River (daily market only)**

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

**Northwest, Wyoming pool (daily market only)**

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

**Northwest, Rocky Mountains (monthly market only)**

Deliveries into Northwest Pipeline's mainline in Wyoming, Utah and Colorado between the Kemmerer and Moab stations. Deliveries at Ignacio, CO and elsewhere in zone MO are excluded. Transactions done at Opal, WY, 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 is not for nomination into a specific pipeline.

**PG&E, Malin (daily and monthly market)**

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

**Questar, Rocky Mountains (daily market only)**

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 Fidlard compressor station. A 20-inch line running parallel to the Utah-Colorado border connects the two systems. This point was discontinued in the monthly market effective May 1, 2014. It continues to be published in the daily market.

**Stanfield, Ore. (daily market only)**

Deliveries into Northwest Pipeline from Gas Transmission Northwest at the Stanfield compressor station in Umatilla County, OR on the Oregon-Washington border. This point was discontinued in the monthly market effective Jan. 1, 2012. It continues to be published in the daily market.

**TCPL Alberta, AECO-C (daily and monthly market)\***

Deliveries into TC Energy'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.

**TCPL Alberta, AECO-C Physical Basis (monthly market only)\***

Deliveries on TC Energy's Alberta System at the AECO-C, NIT Hub in southeastern Alberta. Posting is composed of physical basis deals in which the basis value is negotiated on one of the first three days of bidweek and the price is set by the final closing value of the near-month NYMEX futures contract plus or minus the negotiated basis. 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 price is reported in US dollars per MMBtu.

**Westcoast, station 2 (daily and monthly market)\***

Deliveries into Westcoast Energy at compressor station 2 in north-central British Columbia. The price is reported in Canadian dollars per gigajoule. This point was added to the monthly bidweek market effective for December 2013 delivery.

**White River Hub (daily market only)**

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

**Southwest****El Paso, Bondad (daily market only)**

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, CO, south of the Ignacio plant on Northwest Pipeline and north of the Blanco plant on El Paso.

**El Paso, Permian Basin (daily and monthly market)**

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, San Juan Basin (daily and monthly market)**

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, South Mainline (daily market only)**

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

**El Paso, West Texas (daily and monthly):**

Deliveries into El Paso Natural Gas in West Texas from two pools: the Waha plant south (Waha Pool), and the Keystone station south to Waha (Keystone Pool).

**Kern River, delivered (daily and monthly market)**

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

**PG&E, city-gate (daily and monthly market)**

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

**PG&E, South (daily and monthly market)**

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

**SoCal Gas (daily and monthly market)**

Deliveries into Southern California Gas from El Paso Natural Gas at Topock, CA, and Blythe, CA (Ehrenberg, AZ); from Transwestern Pipeline at Topock-Needles, CA; from Kern River Gas Transmission at Wheeler Ridge and Kramer Junction, CA;

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 Gas, city-gate (daily and monthly market)**

Deliveries at Southern California Gas' 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.

**Transwestern, Permian Basin (daily and monthly market)**

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

**Transwestern, San Juan Basin (daily and monthly market)**

Deliveries to Transwestern Pipeline at points included in Transwestern's Blanco Hub in San Juan County, NM.

**Waha (daily and monthly market)**

Deliveries into interstate and intrastate pipelines at the outlet of the Waha header system in the Permian Basin in West Texas. Pipelines and locations include El Paso Natural Gas, Transwestern Pipeline, Natural Gas Pipeline Co. of America, Northern Natural Gas, Delhi Pipeline, Oasis Pipeline, Atmos Zone 1, OneOk West Tex, and Enterprise Texas Pipeline. Does not include Atmos Zone 3 or Tolar Hub.



**PLATTS LOCATIONS DAILY SYMBOLS**

Name of Indices  Description of Symbol  Market Data Category Bates Published	Final Daily Indices By Trade Date			Preliminary Daily Indices By Trade Date			Final Daily Indices By Flow Date					Preliminary Daily Indices By Flow Date				
	Index and Common Range	Absolute Range	Deal Count	Index and Common Range	Absolute Range	Deal Count	Index and Common Range	Absolute Range	Deal Count	Weekly Average	Monthly Average	Index and Common Range	Absolute Range	Deal Count	Weekly Average	Monthly Average
	GD	GD	GD	GI	GI	GI	GD	GD	GD	GD	GD	GI	GI	GI	GI	GI
	<b>h,l,u,w</b>	<b>h,l</b>	<b>u</b>	<b>h,l,c,w</b>	<b>h,l</b>	<b>u</b>	<b>h,l,u,w</b>	<b>h,l</b>	<b>u</b>	<b>h,l,u</b>	<b>u</b>	<b>h,l,c,w</b>	<b>h,l</b>	<b>u</b>	<b>h,l,c</b>	<b>c</b>
Algonquin, city-gates	IGBEE00	IGBEE20	BGBEE00	PXBEE00	PXBEE20	PMBEE00	IGBEE21	IGBEE22	BGBEE21	IGBEE04	IGBEE06	PNBEE21	POBEE22	PPBEE21	PRBEE04	PSBEE06
Algonquin, receipts	IGBDK00	IGBDK20	BGBDK00	PXBDK00	PXBDK20	PMBDK00	IGBDK21	IGBDK22	BGBDK21	IGBDK04	IGBDK06	PNBDK21	POBDK22	PPBDK21	PRBDK04	PSBDK06
Dracut, Mass.	IGBDW00	IGBDW20	BGBDW00	PXBDW00	PXBDW20	PMBDW00	IGBDW21	IGBDW22	BGBDW21	IGBDW04	IGBDW06	PNBDW21	POBDW22	PPBDW21	PRBDW04	PSBDW06
Iroquois, receipts	IGBCR00	IGBCR20	BGBCR00	PXBCR00	PXBCR20	PMBCR00	IGBCR21	IGBCR22	BGBCR21	IGBCR04	IGBCR06	PNBCR21	POBCR22	PPBCR21	PRBCR04	PSBCR06
Iroquois, zone 1 (delivered excl. Waddington)	IGBRP00	IGBRP20	BGBRP00	PXBRP00	PXBRP20	PMBRP00	IGBRP21	IGBRP22	BGBRP21	IGBRP04	IGBRP06	PNBRP21	POBRP22	PPBRP21	PRBRP04	PSBRP06
Iroquois, zone 2	IGBEJ00	IGBEJ20	BGBEJ00	PXBEJ00	PXBEJ20	PMBEJ00	IGBEJ21	IGBEJ22	BGBEJ21	IGBEJ04	IGBEJ06	PNBEJ21	POBEJ22	PPBEJ21	PRBEJ04	PSBEJ06
Niagara	IGBCS00	IGBCS20	BGBCS00	PXBCS00	PXBCS20	PMBCS00	IGBCS21	IGBCS22	BGBCS21	IGBCS04	IGBCS06	PNBCS21	POBCS22	PPBCS21	PRBCS04	PSBCS06
Tennessee, zone 5-200 leg	IGBRQ00	IGBRQ20	BGBRQ00	PXBRQ00	PXBRQ20	PMBRQ00	IGBRQ21	IGBRQ22	BGBRQ21	IGBRQ04	IGBRQ06	PNBRQ21	POBRQ22	PPBRQ21	PRBRQ04	PSBRQ06
Tennessee zone 6 (300 leg) del.	IGBJC00	IGBJC20	BGBJC00	PXBJC00	PXBJC20	PMBJC00	IGBJC21	IGBJC22	BGBJC21	IGBJC04	IGBJC06	PNBJC21	POBJC22	PPBJC21	PRBJC04	PSBJC06
Tennessee, zone 6 delivered	IGBEI00	IGBEI20	BGBEI00	PXBEI00	PXBEI20	PMBEI00	IGBEI21	IGBEI22	BGBEI21	IGBEI04	IGBEI06	PNBEI21	POBEI22	PPBEI21	PRBEI04	PSBEI06
Tennessee, Zone 6, delivered North	IGBRR00	IGBRR20	BGBRR00	PXBRR00	PXBRR20	PMBRR00	IGBRR21	IGBRR22	BGBRR21	IGBRR04	IGBRR06	PNBRR21	POBRR22	PPBRR21	PRBRR04	PSBRR06
Tennessee, Zone 6, delivered South	IGBRS00	IGBRS20	BGBRS00	PXBRS00	PXBRS20	PMBRS00	IGBRS21	IGBRS22	BGBRS21	IGBRS04	IGBRS06	PNBRS21	POBRS22	PPBRS21	PRBRS04	PSBRS06
Texas Eastern, M-3	IGBEK00	IGBEK20	BGBEK00	PXBK00	PXBK20	PMBEK00	IGBEK21	IGBEK22	BGBEK21	IGBEK04	IGBEK06	PNBEK21	POBEK22	PPBEK21	PRBEK04	PSBEK06
Transco, zone 5 delivered	IGBEN00	IGBEN20	BGBEN00	PXBEN00	PXBEN20	PMBEN00	IGBEN21	IGBEN22	BGBEN21	IGBEN04	IGBEN06	PNBEN21	POBEN22	PPBEN21	PRBEN04	PSBEN06
Transco, zone 5 delivered North	IGCGL00	IGCGL20	CGCGL00	PXCGL00	PXCGL20	PMCGL00	IGCGL21	IGCGL22	CGCGL21	IGCGL04	IGCGL06	PNCGL21	POCGL22	PPCGL21	PRCGL04	PSCGL06
Transco, zone 5 delivered South	IGCHL00	IGCHL20	CGCHL00	PXCHL00	PXCHL20	PMCHL00	IGCHL21	IGCHL22	CGCHL21	IGCHL04	IGCHL06	PNCHL21	POCHL22	PPCHL21	PRCHL04	PSCHL06
Transco, zone 6 N.Y.	IGBEM00	IGBEM20	BGBEM00	PXBEM00	PXBEM20	PMBEM00	IGBEM21	IGBEM22	BGBEM21	IGBEM04	IGBEM06	PNBEM21	POBEM22	PPBEM21	PRBEM04	PSBEM06
Transco, zone 6 non-N.Y.	IGBEL00	IGBEL20	BGBEL00	PXBEL00	PXBEL20	PMBEL00	IGBEL21	IGBEL22	BGBEL21	IGBEL04	IGBEL06	PNBEL21	POBEL22	PPBEL21	PRBEL04	PSBEL06
Transco Zone 6 non-NY North	IGBJS00	IGBJS20	BGBJS00	PXBJS00	PXBJS20	PMBJS00	IGBJS21	IGBJS22	BGBJS21	IGBJS04	IGBJS06	PNBJS21	POBJS22	PPBJS21	PRBJS04	PSBJS06
Transco Zone 6 non-NY South	IGBJT00	IGBJT20	BGBJT00	PXBJT00	PXBJT20	PMBJT00	IGBJT21	IGBJT22	BGBJT21	IGBJT04	IGBJT06	PNBJT21	POBJT22	PPBJT21	PRBJT04	PSBJT06
<b>Northeast Regional Average</b>	<b>IGCAA03</b>															
Columbia Gas, Appalachia	IGBDE00	IGBDE20	BGBDE00	PXBDE00	PXBDE20	PMBDE00	IGBDE21	IGBDE22	BGBDE21	IGBDE04	IGBDE06	PNBDE21	POBDE22	PPBDE21	PRBDE04	PSBDE06
Columbia Gas, Appalachia (Non-IPP)	IGBJU00	IGBJU20	BGBJU00	PXBJU00	PXBJU20	PMBJU00	IGBJU21	IGBJU22	BGBJU21	IGBJU04	IGBJU06	PNBJU21	POBJU22	PPBJU21	PRBJU04	PSBJU06
Dominion, North Point	IGBDB00	IGBDB20	BGBDB00	PXBDB00	PXBDB20	PMBDB00	IGBDB21	IGBDB22	BGBDB21	IGBDB04	IGBDB06	PNBDB21	POBDB22	PPBDB21	PRBDB04	PSBDB06
Dominion, South Point	IGBDC00	IGBDC20	BGBDC00	PXBDC00	PXBDC20	PMBDC00	IGBDC21	IGBDC22	BGBDC21	IGBDC04	IGBDC06	PNBDC21	POBDC22	PPBDC21	PRBDC04	PSBDC06
Lebanon Hub	IGBFJ00	IGBFJ20	BGBFJ00	PXBFJ00	PXBFJ20	PMBFJ00	IGBFJ21	IGBFJ22	BGBFJ21	IGBFJ04	IGBFJ06	PNBFJ21	POBFJ22	PPBFJ21	PRBFJ04	PSBFJ06
Leidy Hub	IGBDD00	IGBDD20	BGBDD00	PXBDD00	PXBDD20	PMBDD00	IGBDD21	IGBDD22	BGBDD21	IGBDD04	IGBDD06	PNBDD21	POBDD22	PPBDD21	PRBDD04	PSBDD06
Millennium, East receipts	IGBIW00	IGBIW20	BGBIW00	PXBIW00	PXBIW20	PMBIW00	IGBIW21	IGBIW22	BGBIW21	IGBIW04	IGBIW06	PNBIW21	POBIW22	PPBIW21	PRBIW04	PSBIW06
Tennessee, zone 4-200 leg	IGBJN00	IGBJN20	BGBJN00	PXBJN00	PXBJN20	PMBJN00	IGBJN21	IGBJN22	BGBJN21	IGBJN04	IGBJN06	PNBJN21	POBJN22	PPBJN21	PRBJN04	PSBJN06
Tennessee, zone 4-300 leg	IGBFL00	IGBFL20	BGBFL00	PXBFL00	PXBFL20	PMBFL00	IGBFL21	IGBFL22	BGBFL21	IGBFL04	IGBFL06	PNBFL21	POBFL22	PPBFL21	PRBFL04	PSBFL06
Tennessee, zone 4-313 Pool	IGCFL00	IGCFL20	CGCFL00	PXCFL00	PXCFL20	PMCFL00	IGCFL21	IGCFL22	CGCFL21	IGCFL04	IGCFL06	PNCFL21	POCFL22	PPCFL21	PRCFL04	PSCFL06

**PLATTS LOCATIONS DAILY SYMBOLS**

Name of Indices	Final Daily Indices By Trade Date			Preliminary Daily Indices By Trade Date			Final Daily Indices By Flow Date					Preliminary Daily Indices By Flow Date					
	Description of Symbol	Index and Common Range	Absolute Range	Deal Count	Index and Common Range	Absolute Range	Deal Count	Index and Common Range	Absolute Range	Deal Count	Weekly Average	Monthly Average	Index and Common Range	Absolute Range	Deal Count	Weekly Average	Monthly Average
Market Data Category	GD	GD	GD	GI	GI	GI	GD	GD	GD	GD	GD	GD	GI	GI	GI	GI	GI
Bates Published	h,l,u,w	h,l	u	h,l,c,w	h,l	u	h,l,u,w	h,l	u	h,l,u	u	h,l,c,w	h,l	u	h,l,c	c	
Texas Eastern, M-2, receipts	IGBJE00	IGBJE20	BGBJE00	PXBJE00	PXBJE20	PMBJE00	IGBJE21	IGBJE22	BGBJE21	IGBJE04	IGBJE06	PNBJE21	POBJE22	PPBJE21	PRBJE04	PSBJE06	
Transco, Leidy Line receipts	IGBIS00	IGBIS20	BGBIS00	PXBIS00	PXBIS20	PMBIS00	IGBIS21	IGBIS22	BGBIS21	IGBIS04	IGBIS06	PNBIS21	POBIS22	PPBIS21	PRBIS04	PSBIS06	
<b>Appalachia Regional Average</b>	<b>IGDAA00</b>																
ANR, Okla.	IGBBY00	IGBBY20	BGBBY00	PXBBY00	PXBBY20	PMBBY00	IGBBY21	IGBBY22	BGBBY21	IGBBY04	IGBBY06	PNBBY21	POBBY22	PPBBY21	PRBBY04	PSBBY06	
Enable Gas, East	IGBCA00	IGBCA20	BGBCA00	PXBCA00	PXBCA20	PMBCA00	IGBCA21	IGBCA22	BGBCA21	IGBCA04	IGBCA06	PNBCA21	POBCA22	PPBCA21	PRBCA04	PSBCA06	
NGPL, Amarillo receipt	IGBDR00	IGBDR20	BGBDR00	PXBDR00	PXBDR20	PMBDR00	IGBDR21	IGBDR22	BGBDR21	IGBDR04	IGBDR06	PNBDR21	POBDR22	PPBDR21	PRBDR04	PSBDR06	
NGPL, Midcontinent	IGBBZ00	IGBBZ20	BGBBZ00	PXBBZ00	PXBBZ20	PMBBZ00	IGBBZ21	IGBBZ22	BGBBZ21	IGBBZ04	IGBBZ06	PNBBZ21	POBBZ22	PPBBZ21	PRBBZ04	PSBBZ06	
Oneok, Okla.	IGBCD00	IGBCD20	BGBCD00	PXBCD00	PXBCD20	PMBCD00	IGBCD21	IGBCD22	BGBCD21	IGBCD04	IGBCD06	PNBCD21	POBCD22	PPBCD21	PRBCD04	PSBCD06	
Panhandle, Tx.-Okla.	IGBCE00	IGBCE20	BGBCE00	PXBCE00	PXBCE20	PMBCE00	IGBCE21	IGBCE22	BGBCE21	IGBCE04	IGBCE06	PNBCE21	POBCE22	PPBCE21	PRBCE04	PSBCE06	
Southern Star, Tx.-Okla.-Kan.	IGBCF00	IGBCF20	BGBCF00	PXBCE00	PXBCE20	PMBCE00	IGBCF21	IGBCF22	BGBCF21	IGBCF04	IGBCF06	PNBCF21	POBCF22	PPBCF21	PRBCF04	PSBCF06	
Texas Eastern, M-1 24-inch	IGBET00	IGBET20	BGBET00	PXBET00	PXBET20	PMBET00	IGBET21	IGBET22	BGBET21	IGBET04	IGBET06	PNBET21	POBET22	PPBET21	PRBET04	PSBET06	
<b>Midcontinent Regional Average</b>	<b>IGEAA00</b>																
Alliance, into interstates	IGBDP00	IGBDP20	BGBDP00	PXBDP00	PXBDP20	PMBDP00	IGBDP21	IGBDP22	BGBDP21	IGBDP04	IGBDP06	PNBDP21	POBDP22	PPBDP21	PRBDP04	PSBDP06	
ANR, ML 7	IGBDQ00	IGBDQ20	BGBDQ00	PXBDQ00	PXBDQ20	PMBDQ00	IGBDQ21	IGBDQ22	BGBDQ21	IGBDQ04	IGBDQ06	PNBDQ21	POBDQ22	PPBDQ21	PRBDQ04	PSBDQ06	
Chicago city-gates	IGBDX00	IGBDX20	BGBDX00	PXBDX00	PXBDX20	PMBDX00	IGBDX21	IGBDX22	BGBDX21	IGBDX04	IGBDX06	PNBDX21	POBDX22	PPBDX21	PRBDX04	PSBDX06	
Chicago - Nicor	IGBEX00	IGBEX20	BGBEX00	PXBEX00	PXBEX20	PMBEX00	IGBEX21	IGBEX22	BGBEX21	IGBEX04	IGBEX06	PNBEX21	POBEX22	PPBEX21	PRBEX04	PSBEX06	
Chicago - NIPSCO	IGBFX00	IGBFX20	BGBFX00	PXBFX00	PXBFX20	PMBFX00	IGBFX21	IGBFX22	BGBFX21	IGBFX04	IGBFX06	PNBFX21	POBFX22	PPBFX21	PRBFX04	PSBFX06	
Chicago - Peoples	IGBGX00	IGBGX20	BGBGX00	PXBGX00	PXBGX20	PMBGX00	IGBGX21	IGBGX22	BGBGX21	IGBGX04	IGBGX06	PNBGX21	POBGX22	PPBGX21	PRBGX04	PSBGX06	
Consumers Energy city-gate	IGBDY00	IGBDY20	BGBDY00	PXBDY00	PXBDY20	PMBDY00	IGBDY21	IGBDY22	BGBDY21	IGBDY04	IGBDY06	PNBDY21	POBDY22	PPBDY21	PRBDY04	PSBDY06	
Dawn, Ontario	IGBCX00	IGBCX20	BGBCX00	PXBCX00	PXBCX20	PMBCX00	IGBCX21	IGBCX22	BGBCX21	IGBCX04	IGBCX06	PNBCX21	POBCX22	PPBCX21	PRBCX04	PSBCX06	
Emerson, Viking GL	IGBCW00	IGBCW20	BGBCW00	PXBCW00	PXBCW20	PMBCW00	IGBCW21	IGBCW22	BGBCW21	IGBCW04	IGBCW06	PNBCW21	POBCW22	PPBCW21	PRBCW04	PSBCW06	
MichCon city-gate	IGBDZ00	IGBDZ20	BGBDZ00	PXBDZ00	PXBDZ20	PMBDZ00	IGBDZ21	IGBDZ22	BGBDZ21	IGBDZ04	IGBDZ06	PNBDZ21	POBDZ22	PPBDZ21	PRBDZ04	PSBDZ06	
Northern Border, Ventura TP	IGBGH00	IGBGH20	BGBGH00	PXBGH00	PXBGH20	PMBGH00	IGBGH21	IGBGH22	BGBGH21	IGBGH04	IGBGH06	PNBGH21	POBGH22	PPBGH21	PRBGH04	PSBGH06	
Northern, demarcation	IGBDV00	IGBDV20	BGBDV00	PXBDV00	PXBDV20	PMBDV00	IGBDV21	IGBDV22	BGBDV21	IGBDV04	IGBDV06	PNBDV21	POBDV22	PPBDV21	PRBDV04	PSBDV06	
Northern, Ventura	IGBDU00	IGBDU20	BGBDU00	PXBUD00	PXBUD20	PMBUD00	IGBDU21	IGBDU22	BGBDU21	IGBDU04	IGBDU06	PNBDU21	POBDU22	PPBDU21	PRBDU04	PSBDU06	
REX, zone 3 delivered	IGBRO00	IGBRO20	BGBRO00	PXBRO00	PXBRO20	PMBRO00	IGBRO21	IGBRO22	BGBRO21	IGBRO04	IGBRO06	PNBRO21	POBRO22	PPBRO21	PRBRO04	PSBRO06	
Rover, delivered	IGBRV00	IGBRV20	BGBRV00	PXBRV00	PXBRV20	PMBRV00	IGBRV21	IGBRV22	BGBRV21	IGBRV04	IGBRV06	PNBRV21	POBRV22	PPBRV21	PRBRV04	PSBRV06	
<b>Upper Midwest Regional Average</b>	<b>IGFAA00</b>																
Agua Dulce Hub	IGBAV00	IGBAV20	BGBAV00	PXBAV00	PXBAV20	PMBAV00	IGBAV21	IGBAV22	BGBAV21	IGBAV04	IGBAV06	PNBAV21	POBAV22	PPBAV21	PRBAV04	PSBAV06	
Carthage Hub	IGBAF00	IGBAF20	BGBAF00	PXBAF00	PXBAF20	PMBAF00	IGBAF21	IGBAF22	BGBAF21	IGBAF04	IGBAF06	PNBAF21	POBAF22	PPBAF21	PRBAF04	PSBAF06	
Florida Gas, zone 1	IGBAW00	IGBAW20	BGBAW00	PXBAW00	PXBAW20	PMBAW00	IGBAW21	IGBAW22	BGBAW21	IGBAW04	IGBAW06	PNBAW21	POBAW22	PPBAW21	PRBAW04	PSBAW06	
Houston Ship Channel	IGBAP00	IGBAP20	BGBAP00	PXBAP00	PXBAP20	PMBAP00	IGBAP21	IGBAP22	BGBAP21	IGBAP04	IGBAP06	PNBAP21	POBAP22	PPBAP21	PRBAP04	PSBAP06	

**PLATTS LOCATIONS DAILY SYMBOLS**

Name of Indices	Final Daily Indices By Trade Date			Preliminary Daily Indices By Trade Date			Final Daily Indices By Flow Date					Preliminary Daily Indices By Flow Date					
	Description of Symbol	Index and Common Range	Absolute Range	Deal Count	Index and Common Range	Absolute Range	Deal Count	Index and Common Range	Absolute Range	Deal Count	Weekly Average	Monthly Average	Index and Common Range	Absolute Range	Deal Count	Weekly Average	Monthly Average
Market Data Category	GD	GD	GD	GI	GI	GI	GD	GD	GD	GD	GD	GD	GI	GI	GI	GI	GI
Bates Published	h,l,u,w	h,l	u	h,l,c,w	h,l	u	h,l,u,w	h,l	u	h,l,u	u	h,l,c,w	h,l	u	h,l,c	c	
Katy	IGBAQ00	IGBAQ20	BGBAQ00	PXBAQ00	PXBAQ20	PMBAQ00	IGBAQ21	IGBAQ22	BGBAQ21	IGBAQ04	IGBAQ06	PNBAQ21	POBAQ22	PPBAQ21	PRBAQ04	PSBAQ06	
NGPL, STX	IGBAZ00	IGBAZ20	BGBAZ00	PXBAZ00	PXBAZ20	PMBAZ00	IGBAZ21	IGBAZ22	BGBAZ21	IGBAZ04	IGBAZ06	PNBAZ21	POBAZ22	PPBAZ21	PRBAZ04	PSBAZ06	
NGPL, Texok zone	IGBAL00	IGBAL20	BGBAL00	PXBAL00	PXBAL20	PMBAL00	IGBAL21	IGBAL22	BGBAL21	IGBAL04	IGBAL06	PNBAL21	POBAL22	PPBAL21	PRBAL04	PSBAL06	
Tennessee, zone 0	IGBBA00	IGBBA20	BGBBA00	PXBBA00	PXBBA20	PMBBA00	IGBBA21	IGBBA22	BGBBA21	IGBBA04	IGBBA06	PNBBA21	POBBA22	PPBBA21	PRBBA04	PSBBA06	
Texas Eastern, ETX	IGBAN00	IGBAN20	BGBAN00	PXBAN00	PXBAN20	PMBAN00	IGBAN21	IGBAN22	BGBAN21	IGBAN04	IGBAN06	PNBAN21	POBAN22	PPBAN21	PRBAN04	PSBAN06	
Texas Eastern, STX	IGBBB00	IGBBB20	BGBBB00	PXBBB00	PXBBB20	PMBBB00	IGBBB21	IGBBB22	BGBBB21	IGBBB04	IGBBB06	PNBBB21	POBBB22	PPBBB21	PRBBB04	PSBBB06	
Transco, zone 1	IGBBC00	IGBBC20	BGBBC00	PXBBC00	PXBBC20	PMBBC00	IGBBC21	IGBBC22	BGBBC21	IGBBC04	IGBBC06	PNBBC21	POBBC22	PPBBC21	PRBBC04	PSBBC06	
Transco, zone 2	IGBBU00	IGBBU20	BGBBU00	PXBBU00	PXBBU20	PMBBU00	IGBBU21	IGBBU22	BGBBU21	IGBBU04	IGBBU06	PNBBU21	POBBU22	PPBBU21	PRBBU04	PSBBU06	
<b>East Texas Regional Average</b>	<b>IGGAA00</b>																
ANR, La.	IGBBF00	IGBBF20	BGBBF00	PXBBF00	PXBBF20	PMBBF00	IGBBF21	IGBBF22	BGBBF21	IGBBF04	IGBBF06	PNBBF21	POBBF22	PPBBF21	PRBBF04	PSBBF06	
Columbia Gulf, La.	IGBBG00	IGBBG20	BGBBG00	PXBBG00	PXBBG20	PMBBG00	IGBBG21	IGBBG22	BGBBG21	IGBBG04	IGBBG06	PNBBG21	POBBG22	PPBBG21	PRBBG04	PSBBG06	
Columbia Gulf, mainline	IGBBH00	IGBBH20	BGBBH00	PXBBH00	PXBBH20	PMBBH00	IGBBH21	IGBBH22	BGBBH21	IGBBH04	IGBBH06	PNBBH21	POBBH22	PPBBH21	PRBBH04	PSBBH06	
Florida city-gates	IGBED00	IGBED20	BGBED00	PXBED00	PXBED20	PMBED00	IGBED21	IGBED22	BGBED21	IGBED04	IGBED06	PNBED21	POBED22	PPBED21	PRBED04	PSBED06	
Florida Gas, zone 2	IGBBJ00	IGBBJ20	BGBBJ00	PXBBJ00	PXBBJ20	PMBBJ00	IGBBJ21	IGBBJ22	BGBBJ21	IGBBJ04	IGBBJ06	PNBBJ21	POBBJ22	PPBBJ21	PRBBJ04	PSBBJ06	
Florida Gas, zone 3	IGBBK00	IGBBK20	BGBBK00	PXBBK00	PXBBK20	PMBBK00	IGBBK21	IGBBK22	BGBBK21	IGBBK04	IGBBK06	PNBBK21	POBBK22	PPBBK21	PRBBK04	PSBBK06	
Henry Hub	IGBBL00	IGBBL20	BGBBL00	PXBBL00	PXBBL20	PMBBL00	IGBBL21	IGBBL22	BGBBL21	IGBBL04	IGBBL06	PNBBL21	POBBL22	PPBBL21	PRBBL04	PSBBL06	
Pine Prairie Hub	IGBRU00	IGBRU20	BGBRU00	PXBRU00	PXBRU20	PMBRU00	IGBRU21	IGBRU22	BGBRU21	IGBRU04	IGBRU06	PNBRU21	POBRU22	PPBRU21	PRBRU04	PSBRU06	
Southern Natural, La.	IGBBO00	IGBBO20	BGBBO00	PXBBO00	PXBBO20	PMBBO00	IGBBO21	IGBBO22	BGBBO21	IGBBO04	IGBBO06	PNBBO21	POBBO22	PPBBO21	PRBBO04	PSBBO06	
Tennessee, Zone 1	IGBHI00	IGBHI20	BGBHI00	PXBHI00	PXBHI20	PMBHI00	IGBHI21	IGBHI22	BGBHI21	IGBHI04	IGBHI06	PNBHI21	POBHI22	PPBHI21	PRBHI04	PSBHI06	
Tennessee, La., 500 leg	IGBBP00	IGBBP20	BGBBP00	PXBBP00	PXBBP20	PMBBP00	IGBBP21	IGBBP22	BGBBP21	IGBBP04	IGBBP06	PNBBP21	POBBP22	PPBBP21	PRBBP04	PSBBP06	
Tennessee, La., 800 leg	IGBBQ00	IGBBQ20	BGBBQ00	PXBBQ00	PXBBQ20	PMBBQ00	IGBBQ21	IGBBQ22	BGBBQ21	IGBBQ04	IGBBQ06	PNBBQ21	POBBQ22	PPBBQ21	PRBBQ04	PSBBQ06	
Texas Eastern, ELA	IGBBS00	IGBBS20	BGBBS00	PXBBS00	PXBBS20	PMBBS00	IGBBS21	IGBBS22	BGBBS21	IGBBS04	IGBBS06	PNBBS21	POBBS22	PPBBS21	PRBBS04	PSBBS06	
Texas Eastern, M-1 30-inch (Kosi)	IGBDI00	IGBDI20	BGBDI00	PXBDI00	PXBDI20	PMBDI00	IGBDI21	IGBDI22	BGBDI21	IGBDI04	IGBDI06	PNBDI21	POBDI22	PPBDI21	PRBDI04	PSBDI06	
Texas Eastern, WLA	IGBBR00	IGBBR20	BGBBR00	PXBBR00	PXBBR20	PMBBR00	IGBBR21	IGBBR22	BGBBR21	IGBBR04	IGBBR06	PNBBR21	POBBR22	PPBBR21	PRBBR04	PSBBR06	
Texas Gas, zone 1	IGBAO00	IGBAO20	BGBAO00	PXBAO00	PXBAO20	PMBAO00	IGBAO21	IGBAO22	BGBAO21	IGBAO04	IGBAO06	PNBAO21	POBAO22	PPBAO21	PRBAO04	PSBAO06	
Texas Gas, zone SL	IGBBT00	IGBBT20	BGBBT00	PXBBT00	PXBBT20	PMBBT00	IGBBT21	IGBBT22	BGBBT21	IGBBT04	IGBBT06	PNBBT21	POBBT22	PPBBT21	PRBBT04	PSBBT06	
Transco, zone 3	IGBBV00	IGBBV20	BGBBV00	PXBBV00	PXBBV20	PMBBV00	IGBBV21	IGBBV22	BGBBV21	IGBBV04	IGBBV06	PNBBV21	POBBV22	PPBBV21	PRBBV04	PSBBV06	
Transco, zone 4	IGBDJ00	IGBDJ20	BGBDJ00	PXBDJ00	PXBDJ20	PMBDJ00	IGBDJ21	IGBDJ22	BGBDJ21	IGBDJ04	IGBDJ06	PNBDJ21	POBDJ22	PPBDJ21	PRBDJ04	PSBDJ06	
Trunkline, ELA	IGBBX00	IGBBX20	BGBBX00	PXBBX00	PXBBX20	PMBBX00	IGBBX21	IGBBX22	BGBBX21	IGBBX04	IGBBX06	PNBBX21	POBBX22	PPBBX21	PRBBX04	PSBBX06	
Trunkline, WLA	IGBBW00	IGBBW20	BGBBW00	PXBBW00	PXBBW20	PMBBW00	IGBBW21	IGBBW22	BGBBW21	IGBBW04	IGBBW06	PNBBW21	POBBW22	PPBBW21	PRBBW04	PSBBW06	
Trunkline, zone 1A	IGBGF00	IGBGF20	BGBGF00	PXBGF00	PXBGF20	PMBGF00	IGBGF21	IGBGF22	BGBGF21	IGBGF04	IGBGF06	PNBGF21	POBGF22	PPBGF21	PRBGF04	PSBGF06	
<b>Louisiana/Southeast Regional Average</b>	<b>IGHAA00</b>																

**PLATTS LOCATIONS DAILY SYMBOLS**

Name of Indices	Final Daily Indices By Trade Date			Preliminary Daily Indices By Trade Date			Final Daily Indices By Flow Date					Preliminary Daily Indices By Flow Date					
	Description of Symbol	Index and Common Range	Absolute Range	Deal Count	Index and Common Range	Absolute Range	Deal Count	Index and Common Range	Absolute Range	Deal Count	Weekly Average	Monthly Average	Index and Common Range	Absolute Range	Deal Count	Weekly Average	Monthly Average
Market Data Category	GD	GD	GD	GI	GI	GI	GD	GD	GD	GD	GD	GD	GI	GI	GI	GI	GI
Bates Published	h,l,u,w	h,l	u	h,l,c,w	h,l	u	h,l,u,w	h,l	u	h,l,u	u	h,l,c,w	h,l	u	h,l,c	c	
Cheyenne Hub	IGBCO00	IGBCO20	BGBCO00	PXBCO00	PXBCO20	PMBCO00	IGBCO21	IGBCO22	BGBCO21	IGBCO04	IGBCO06	PNBCO21	POBCO22	PPBCO21	PRBCO04	PSBCO06	
CIG, Rocky Mountains	IGBCK00	IGBCK20	BGBCK00	PXBCK00	PXBCK20	PMBCK00	IGBCK21	IGBCK22	BGBCK21	IGBCK04	IGBCK06	PNBCK21	POBCK22	PPBCK21	PRBCK04	PSBCK06	
GTN, Kingsgate	IGBCY00	IGBCY20	BGBCY00	PXBCY00	PXBCY20	PMBCY00	IGBCY21	IGBCY22	BGBCY21	IGBCY04	IGBCY06	PNBCY21	POBCY22	PPBCY21	PRBCY04	PSBCY06	
Kern River/Opal plant	IGBCL00	IGBCL20	BGBCL00	PXBCL00	PXBCL20	PMBCL00	IGBCL21	IGBCL22	BGBCL21	IGBCL04	IGBCL06	PNBCL21	POBCL22	PPBCL21	PRBCL04	PSBCL06	
Northwest, Canadian border (Sumas)	IGBCT00	IGBCT20	BGBCT00	PXBCT00	PXBCT20	PMBCT00	IGBCT21	IGBCT22	BGBCT21	IGBCT04	IGBCT06	PNBCT21	POBCT22	PPBCT21	PRBCT04	PSBCT06	
Northwest, Rocky Mountain Pool	IGBRW00	IGBRW20	BGBRW00	PXBRW00	PXBRW20	PMBRW00	IGBRW21	IGBRW22	BGBRW21	IGBRW04	IGBRW06	PNBRW21	POBRW22	PPBRW21	PRBRW04	PSBRW06	
Northwest, S. of Green River	IGBCQ00	IGBCQ20	BGBCQ00	PXBCQ00	PXBCQ20	PMBCQ00	IGBCQ21	IGBCQ22	BGBCQ21	IGBCQ04	IGBCQ06	PNBCQ21	POBCQ22	PPBCQ21	PRBCQ04	PSBCQ06	
Northwest, Wyoming pool	IGBCP00	IGBCP20	BGBCP00	PXBPC00	PXBPC20	PMBPC00	IGBCP21	IGBCP22	BGBCP21	IGBCP04	IGBCP06	PNBCP21	POBCP22	PPBCP21	PRBCP04	PSBCP06	
PG&E, Malin	IGBDO00	IGBDO20	BGBDO00	PXBDO00	PXBDO20	PMBDO00	IGBDO21	IGBDO22	BGBDO21	IGBDO04	IGBDO06	PNBDO21	POBDO22	PPBDO21	PRBDO04	PSBDO06	
Questar, Rocky Mountains	IGBCN00	IGBCN20	BGBCN00	PXBCN00	PXBCN20	PMBCN00	IGBCN21	IGBCN22	BGBCN21	IGBCN04	IGBCN06	PNBCN21	POBCN22	PPBCN21	PRBCN04	PSBCN06	
Stanfield, Ore.	IGBCM00	IGBCM20	BGBCM00	PXBGM00	PXBGM20	PMBGM00	IGBCM21	IGBCM22	BGBCM21	IGBCM04	IGBCM06	PNBCM21	POBCM22	PPBCM21	PRBCM04	PSBCM06	
TCPL Alberta, AECO-C	IGBCU00	IGBCU20	BGBCU00	PXBCU00	PXBCU20	PMBCU00	IGBCU21	IGBCU22	BGBCU21	IGBCU04	IGBCU06	PNBCU21	POBCU22	PPBCU21	PRBCU04	PSBCU06	
Westcoast, station 2	IGBCZ00	IGBCZ20	BGBCZ00	PXBCZ00	PXBCZ20	PMBCZ00	IGBCZ21	IGBCZ22	BGBCZ21	IGBCZ04	IGBCZ06	PNBCZ21	POBCZ22	PPBCZ21	PRBCZ04	PSBCZ06	
White River Hub	IGBGL00	IGBGL20	BGBGL00	PXBGL00	PXBGL20	PMBGL00	IGBGL21	IGBGL22	BGBGL21	IGBGL04	IGBGL06	PNBGL21	POBGL22	PPBGL21	PRBGL04	PSBGL06	
<b>Rockies/Northwest Regional Average</b>	<b>IGIAA00</b>																
El Paso, Bondad	IGBCG00	IGBCG20	BGBCG00	PXBCG00	PXBCG20	PMBCG00	IGBCG21	IGBCG22	BGBCG21	IGBCG04	IGBCG06	PNBCG21	POBCG22	PPBCG21	PRBCG04	PSBCG06	
El Paso, Permian Basin	IGBAB00	IGBAB20	BGBAB00	PXBAB00	PXBAB20	PMBAB00	IGBAB21	IGBAB22	BGBAB21	IGBAB04	IGBAB06	PNBAB21	POBAB22	PPBAB21	PRBAB04	PSBAB06	
El Paso, San Juan Basin	IGBCH00	IGBCH20	BGBCH00	PXBCH00	PXBCH20	PMBCH00	IGBCH21	IGBCH22	BGBCH21	IGBCH04	IGBCH06	PNBCH21	POBCH22	PPBCH21	PRBCH04	PSBCH06	
El Paso, South Mainline	IGBFR00	IGBFR20	BGBFR00	PXBFR00	PXBFR20	PMBFR00	IGBFR21	IGBFR22	BGBFR21	IGBFR04	IGBFR06	PNBFR21	POBFR22	PPBFR21	PRBFR04	PSBFR06	
El Paso, West Texas	IGBRT00	IGBRT20	BGBRT00	PXBRT00	PXBRT20	PMBRT00	IGBRT21	IGBRT22	BGBRT21	IGBRT04	IGBRT06	PNBRT21	POBRT22	PPBRT21	PRBRT04	PSBRT06	
Kern River, delivered	IGBES00	IGBES20	BGBES00	PXBES00	PXBES20	PMBES00	IGBES21	IGBES22	BGBES21	IGBES04	IGBES06	PNBES21	POBES22	PPBES21	PRBES04	PSBES06	
PG&E, city-gate	IGBEB00	IGBEB20	BGBEB00	PXBEB00	PXBEB20	PMBEB00	IGBEB21	IGBEB22	BGBEB21	IGBEB04	IGBEB06	PNBEB21	POBEB22	PPBEB21	PRBEB04	PSBEB06	
PG&E, South	IGBDM00	IGBDM20	BGBDM00	PXBDM00	PXBDM20	PMBDM00	IGBDM21	IGBDM22	BGBDM21	IGBDM04	IGBDM06	PNBDM21	POBDM22	PPBDM21	PRBDM04	PSBDM06	
SoCal Gas	IGBDL00	IGBDL20	BGBDL00	PXBDL00	PXBDL20	PMBDL00	IGBDL21	IGBDL22	BGBDL21	IGBDL04	IGBDL06	PNBDL21	POBDL22	PPBDL21	PRBDL04	PSBDL06	
SoCal Gas, city-gate	IGBGG00	IGBGG20	BGBGG00	PXBGG00	PXBGG20	PMBGG00	IGBGG21	IGBGG22	BGBGG21	IGBGG04	IGBGG06	PNBGG21	POBGG22	PPBGG21	PRBGG04	PSBGG06	
Transwestern, Permian Basin	IGBAE00	IGBAE20	BGBAE00	PXBAE00	PXBAE20	PMBAE00	IGBAE21	IGBAE22	BGBAE21	IGBAE04	IGBAE06	PNBAE21	POBAE22	PPBAE21	PRBAE04	PSBAE06	
Transwestern, San Juan Basin	IGBGK00	IGBGK20	BGBGK00	PXBGK00	PXBGK20	PMBGK00	IGBGK21	IGBGK22	BGBGK21	IGBGK04	IGBGK06	PNBGK21	POBGK22	PPBGK21	PRBGK04	PSBGK06	
Waha	IGBAD00	IGBAD20	BGBAD00	PXBAD00	PXBAD20	PMBAD00	IGBAD21	IGBAD22	BGBAD21	IGBAD04	IGBAD06	PNBAD21	POBAD22	PPBAD21	PRBAD04	PSBAD06	
<b>Southwest Regional Average</b>	<b>IGJAA00</b>																

Bates are defined as: high = h; Low = l; Index = u or Final Indices and c for Preliminary Indices; Volume = w

**PLATTS LOCATIONS MONTHLY SYMBOLS**

Name of Indices Description of Symbol	Final Monthly Indices						Preliminary Daily Indices During Bidweek				Preliminary Bidweek To Date Indices			
	Index	Deal Count	Basis	Basis Deal Count	Fixed Price Equivalent	Tier	Preliminary Fixed Price	Preliminary Fixed Price Deal Count	Preliminary Basis	Preliminary Basis Deal Count	Preliminary Cumulative Fixed Price	Preliminary Cumulative Fixed Price Deal Count	Preliminary Cumulative Basis	Preliminary Cumulative Basis Deal Count
Market Data Category	GM	GM	GM	GM	GM	GM	GJ	GJ	GJ	GJ	GJ	GJ	GJ	GJ
Bates Published	h,l,u,w	u	h,l,u,w	u	u	u	h, l, c, w	u	h, l, c, w	u	h, l, c, w	u	h, l, c, w	u
Algonquin, city-gates	IGBEE03	BGBEE03	IGBEE36	BGBEE36	EGBEE36	CGBEE03	PMBEE03	PFBEE03	PHBEE36	PJBEE36	PCBEE03	PGBEE03	PIBEE36	PKBEE36
Iroquois, receipts	IGBCR03	BGBCR03	IGBCR36	BGBCR36	EGBCR36	CGBCR03	PMBCR03	PFBKR03	PHBCR36	PJBKR36	PCBCR03	PGBCR03	PIBCR36	PKBCR36
Iroquois, zone 2	IGBEJ03	BGBEJ03	IGBEJ36	BGBEJ36	EGBEJ36	CGBEJ03	PMBEJ03	PFBKJ03	PHBEJ36	PJBEJ36	PCBEJ03	PGBEJ03	PIBEJ36	PKBEJ36
Niagara	IGBCS03	BGBCS03	IGBCS36	BGBCS36	EGBCS36	CGBCS03	PMBCS03	PFBKS03	PHBCS36	PJBKS36	PCBCS03	PGBCS03	PIBCS36	PKBCS36
Tennessee, zone 6 delivered	IGBEI03	BGBEI03	IGBEI36	BGBEI36	EGBEI36	CGBEI03	PMBEI03	PFBKI03	PHBEI36	PJBEI36	PCBEI03	PGBEI03	PIBEI36	PKBEI36
Tennessee, Zone 6, delivered North	IGBJW03	BGBRW03	IGBRW36	BGBRW36	EGBRW36	CGBRW03	PMBRW03	PFBRW03	PHBRW36	PJBRW36	PCBRW03	PGBRW03	PIBRW36	PKBRW36
Tennessee, Zone 6, delivered South	IGBJX03	BGBJX03	IGBJX36	BGBJX36	EGBJX36	CGBJX03	PMBJX03	PFBJX03	PHBJX36	PJBX36	PCBJX03	PGBJX03	PIBJX36	PKBJX36
Texas Eastern, M-3	IGBEK03	BGBEK03	IGBEK36	BGBEK36	EGBEK36	CGBEK03	PMBEK03	PFBEK03	PHBEK36	PJBEK36	PCBEK03	PGBEK03	PIBEK36	PKBEK36
Transco, zone 5 delivered	IGBEN03	BGBEN03	IGBEN36	BGBEN36	EGBEN36	CGBEN03	PMBEN03	PFBEN03	PHBEN36	PJBEN36	PCBEN03	PGBEN03	PIBEN36	PKBEN36
Transco, zone 5 delivered South	IGCHL03	BGCHL03	IGCHL36	BGCHL36	EGCHL36	CGCHL03	PMCHL03	PFBCHL03	PHCHL36	PJCHL36	PCCHL03	PGBCHL03	PIBCHL36	PKCHL36
Transco, zone 6 N.Y.	IGBEM03	BGBEM03	IGBEM36	BGBEM36	EGBEM36	CGBEM03	PMBEM03	PFBEM03	PHBEM36	PJBEM36	PCBEM03	PGBEM03	PIBEM36	PKBEM36
Transco, zone 6 non-N.Y.	IGBEL03	BGBEL03	IGBEL36	BGBEL36	EGBEL36	CGBEL03	PMBEL03	PFBEL03	PHBEL36	PJBEL36	PCBEL03	PGBEL03	PIBEL36	PKBEL36
Transco Zone 6 non-NY North	IGBJS03	BGBJS03	IGBJS36	BGBJS36	EGBJS36	CGBJS03	PMBJS03	PFBJS03	PHBJS36	PJBJS36	PCBJS03	PGBJS03	PIBJS36	PKBJS36
Transco Zone 6 non-NY South	IGBJT03	BGBJT03	IGBJT36	BGBJT36	EGBJT36	CGBJT03	PMBJT03	PFBJT03	PHBJT36	PJBJT36	PCBJT03	PGBJT03	PIBJT36	PKBJT36
<b>Northeast Regional Average</b>	<b>IGCAA03</b>													
Columbia Gas, Appalachia	IGBDE03	BGBDE03	IGBDE36	BGBDE36	EGBDE36	CGBDE03	PMBDE03	PFBDE03	PHBDE36	PJBDE36	PCBDE03	PGBDE03	PIBDE36	PKBDE36
Columbia Gas, Appalachia (Non-IPP)	IGBJU03	BGBJU03	IGBJU36	BGBJU36	EGBJU36	CGBJU03	PMBJU03	PFBJU03	PHBJU36	PJBJU36	PCBJU03	PGBJU03	PIBJU36	PKBJU36
Dominion, Appalachia	IGBDC03	BGBDC03	IGBDC36	BGBDC36	EGBDC36	CGBDC03	PMBDC03	PFBDC03	PHBDC36	PJBDC36	PCBDC03	PGBDC03	PIBDC36	PKBDC36
Lebanon Hub	IGBFJ03	BGBFJ03	IGBFJ36	BGBFJ36	EGBFJ36	CGBFJ03	PMBFJ03	PFBFJ03	PHBFJ36	PJBFJ36	PCBFJ03	PGBFJ03	PIBFJ36	PKBFJ36
Leidy Hub	IGBDD03	BGBDD03	IGBDD36	BGBDD36	EGBDD36	CGBDD03	PMBDD03	PFBDD03	PHBDD36	PJBDD36	PCBDD03	PGBDD03	PIBDD36	PKBDD36
Millennium, East receipts	IGBIW03	BGBIW03	IGBIW36	BGBIW36	EGBIW36	CGBIW03	PMBIW03	PFBIW03	PHBIW36	PJBW36	PCBIW03	PGBIW03	PIBW36	PKBIW36
Tennessee, zone 4-200 leg	IGBJN03	BGBJN03	IGBJN36	BGBJN36	EGBJN36	CGBJN03	PMBJN03	PFBJN03	PHBJN36	PJBW36	PCBJN03	PGBJN03	PIBJN36	PKBJN36
Tennessee, zone 4-300 leg	IGBFL03	BGBFL03	IGBFL36	BGBFL36	EGBFL36	CGBFL03	PMBFL03	PFBFL03	PHBFL36	PJBFL36	PCBFL03	PGBFL03	PIBFL36	PKBFL36
Tennessee, zone 4-313 Pool	IGCFL03	BGCFL03	IGCFL36	BGCFL36	EGCFL36	CGCFL03	PMCFL03	PFCFL03	PHCFL36	PJCFL36	PCCFL03	PGCFL03	PICFL36	PKCFL36
Texas Eastern, M-2, receipts	IGBJE03	BGBJE03	IGBJE36	BGBJE36	EGBJE36	CGBJE03	PMBJE03	PFBJE03	PHBJE36	PJBE36	PCBJE03	PGBJE03	PIBJE36	PKBJE36
Transco, Leidy Line receipts	IGBIS03	BGBIS03	IGBIS36	BGBIS36	EGBIS36	CGBIS03	PMBIS03	PFBIS03	PHBIS36	PJBIS36	PCBIS03	PGBIS03	PIBIS36	PKBIS36
<b>Appalachia Regional Average</b>	<b>IGDAA03</b>													
ANR, Okla.	IGBBY03	BGBBY03	IGBBY36	BGBBY36	EGBBY36	CGBBY03	PMBBY03	PFBBY03	PHBBY36	PJBBY36	PCBBY03	PGBBY03	PIBBY36	PKBBY36
Enable Gas, East	IGBCA03	BGBCA03	IGBCA36	BGBCA36	EGBCA36	CGBCA03	PMBCA03	PFBKA03	PHBCA36	PJBKA36	PCBCA03	PGBCA03	PIBKA36	PKBCA36
NGPL, Midcontinent	IGBBZ03	BGBBZ03	IGBBZ36	BGBBZ36	EGBBZ36	CGBBZ03	PMBBZ03	PFBKZ03	PHBBZ36	PJBKZ36	PCBBZ03	PGBBZ03	PIBBZ36	PKBBZ36
Oneok, Okla.	IGBCD03	BGBCD03	IGBCD36	BGBCD36	EGBCD36	CGBCD03	PMBKD03	PFBKD03	PHBCD36	PJBKD36	PCBKD03	PGBKD03	PIBKD36	PKBKD36
Panhandle, Tx.-Okla.	IGBCE03	BGBCE03	IGBCE36	BGBCE36	EGBCE36	CGBCE03	PMBKE03	PFBKE03	PHBCE36	PJBKE36	PCBCE03	PGBCE03	PIBCE36	PKBCE36
Southern Star, Tx.-Okla.-Kan.	IGBCF03	BGBCF03	IGBCF36	BGBCF36	EGBCF36	CGBCF03	PMBKF03	PFBKF03	PHBCF36	PJBKF36	PCBCF03	PGBCF03	PIBCF36	PKBCF36

**PLATTS LOCATIONS MONTHLY SYMBOLS**

Name of Indices Description of Symbol	Final Monthly Indices						Preliminary Daily Indices During Bidweek				Preliminary Bidweek To Date Indices			
	Index	Deal Count	Basis	Basis Deal Count	Fixed Price Equivalent	Tier	Preliminary Fixed Price	Preliminary Fixed Price Deal Count	Preliminary Basis	Preliminary Basis Deal Count	Preliminary Cumulative Fixed Price	Preliminary Cumulative Fixed Price Deal Count	Preliminary Cumulative Basis	Preliminary Cumulative Basis Deal Count
Market Data Category	GM	GM	GM	GM	GM	GM	GJ	GJ	GJ	GJ	GJ	GJ	GJ	GJ
Bates Published	h,l,u,w	u	h,l,u,w	u	u	u	h, l, c, w	u	h, l, c, w	u	h, l, c, w	u	h, l, c, w	u
Midcontinent Regional Average	IGEAA03													
ANR, ML 7	IGBDQ03	BGBDQ03	IGBDQ36	BGBDQ36	EGBDQ36	CGBDQ03	PMBDQ03	PFBDQ03	PHBDQ36	PJBDQ36	PCBDQ03	PGBDQ03	PIBDQ36	PKBDQ36
Chicago city-gates	IGBDX03	BGBDX03	IGBDX36	BGBDX36	EGBDX36	CGBDX03	PMBDX03	PFBDX03	PHBDX36	PJBDX36	PCBDX03	PGBDX03	PIBDX36	PKBDX36
Chicago - Nicor	IGBEX03	BGBEX03	IGBEX36	BGBEX36	EGBEX36	CGBEX03	PMBEX03	PFBEX03	PHBEX36	PJBEX36	PCBEX03	PGBEX03	PIBEX36	PKBEX36
Chicago - NIPSCO	IGBFX03	BGBFX03	IGBFX36	BGBFX36	EGBFX36	CGBFX03	PMBFX03	PFBFX03	PHBFX36	PJBFX36	PCBFX03	PGBFX03	PIBFX36	PKBFX36
Chicago - Peoples	IGBGX03	BGBGX03	IGBGX36	BGBGX36	EGBGX36	CGBGX03	PMBGX03	PFBGX03	PHBGX36	PJBGX36	PCBGX03	PGBGX03	PIBGX36	PKBGX36
Consumers Energy city-gate	IGBDY03	BGBDY03	IGBDY36	BGBDY36	EGBDY36	CGBDY03	PMBDY03	PFBDY03	PHBDY36	PJBDY36	PCBDY03	PGBDY03	PIBDY36	PKBDY36
Dawn, Ontario	IGBCX03	BGBCX03	IGBCX36	BGBCX36	EGBCX36	CGBCX03	PMBCX03	PFBCX03	PHBCX36	PJBCX36	PCBCX03	PGBCX03	PIBCX36	PKBCX36
Emerson, Viking GL	IGBCW03	BGBCW03	IGBCW36	BGBCW36	EGBCW36	CGBCW03	PMBCW03	PFBCW03	PHBCW36	PJBCW36	PCBCW03	PGBCW03	PIBCW36	PKBCW36
MichCon city-gate	IGBDZ03	BGBDZ03	IGBDZ36	BGBDZ36	EGBDZ36	CGBDZ03	PMBDZ03	PFBDZ03	PHBDZ36	PJBDZ36	PCBDZ03	PGBDZ03	PIBDZ36	PKBDZ36
Northern Border, Ventura TP	IGBGH03	BGBGH03	IGBGH36	BGBGH36	EGBGH36	CGBGH03	PMBGH03	PFBGH03	PHBGH36	PJBGH36	PCBGH03	PGBGH03	PIBGH36	PKBGH36
Northern, demarcation	IGBDV03	BGBDV03	IGBDV36	BGBDV36	EGBDV36	CGBDV03	PMBDV03	PFBDV03	PHBDV36	PJBDV36	PCBDV03	PGBDV03	PIBDV36	PKBDV36
Northern, Ventura	IGBDU03	BGBDU03	IGBDU36	BGBDU36	EGBDU36	CGBDU03	PMBDU03	PFBDU03	PHBDU36	PJBDU36	PCBDU03	PGBDU03	PIBDU36	PKBDU36
REX, zone 3 delivered	IGBR03	BGBR03	IGBR036	BGBR036	EGBR036	CGBR03	PMBR03	PFBR03	PHBR036	PJBR036	PCBR03	PGBR03	PIBR036	PKBR036
Rover, delivered	IGBRV03	BGBRV03	IGBRV36	BGBRV36	EGBRV36	CGBRV03	PMBRV03	PFBRV03	PHBRV36	PJBRV36	PCBRV03	PGBRV03	PIBRV36	PKBRV36
<b>Upper Midwest Regional Average</b>	IGFAA03													
Florida Gas, zone 1	IGBAW03	BGBAW03	IGBAW36	BGBAW36	EGBAW36	CGBAW03	PMBAW03	PFBAW03	PHBAW36	PJBAW36	PCBAW03	PGBAW03	PIBAW36	PKBAW36
Houston Ship Channel	IGBAP03	BGBAP03	IGBAP36	BGBAP36	EGBAP36	CGBAP03	PMBAP03	PFBAP03	PHBAP36	PJBAP36	PCBAP03	PGBAP03	PIBAP36	PKBAP36
Katy	IGBAQ03	BGBAQ03	IGBAQ36	BGBAQ36	EGBAQ36	CGBAQ03	PMBAQ03	PFBAQ03	PHBAQ36	PJBAQ36	PCBAQ03	PGBAQ03	PIBAQ36	PKBAQ36
NGPL, STX	IGBAZ03	BGBAZ03	IGBAZ36	BGBAZ36	EGBAZ36	CGBAZ03	PMBAZ03	PFBAZ03	PHBAZ36	PJBAZ36	PCBAZ03	PGBAZ03	PIBAZ36	PKBAZ36
NGPL, Texok zone	IGBAL03	BGBAL03	IGBAL36	BGBAL36	EGBAL36	CGBAL03	PMBAL03	PFBAL03	PHBAL36	PJBAL36	PCBAL03	PGBAL03	PIBAL36	PKBAL36
Tennessee, zone 0	IGBBA03	BGBBA03	IGBBA36	BGBBA36	EGBBA36	CGBBA03	PMBBA03	PFBBA03	PHBBA36	PJBBA36	PCBBA03	PGBBA03	PIBBA36	PKBBA36
Texas Eastern, ETX	IGBAN03	BGBAN03	IGBAN36	BGBAN36	EGBAN36	CGBAN03	PMBAN03	PFBAN03	PHBAN36	PJBAN36	PCBAN03	PGBAN03	PIBAN36	PKBAN36
Texas Eastern, STX	IGBBB03	BGBBB03	IGBBB36	BGBBB36	EGBBB36	CGBBB03	PMBBB03	PFBBB03	PHBBB36	PJBBB36	PCBBB03	PGBBB03	PIBBB36	PKBBB36
Transco, zone 1	IGBBC03	BGBBC03	IGBBC36	BGBBC36	EGBBC36	CGBBC03	PMBBC03	PFBBC03	PHBBC36	PJBBC36	PCBBC03	PGBBC03	PIBBC36	PKBBC36
Transco, zone 2	IGBBU03	BGBBU03	IGBBU36	BGBBU36	EGBBU36	CGBBU03	PMBBU03	PFBBU03	PHBBU36	PJBBU36	PCBBU03	PGBBU03	PIBBU36	PKBBU36
<b>East Texas Regional Average</b>	IGGAA03													
ANR, La.	IGBBF03	BGBBF03	IGBBF36	BGBBF36	EGBBF36	CGBBF03	PMBBF03	PFBBF03	PHBBF36	PJBBF36	PCBBF03	PGBBF03	PIBBF36	PKBBF36
Columbia Gulf, La.	IGBBG03	BGBBG03	IGBBG36	BGBBG36	EGBBG36	CGBBG03	PMBBG03	PFBBG03	PHBBG36	PJBBG36	PCBBG03	PGBBG03	PIBBG36	PKBBG36
Columbia Gulf, mainline	IGBBH03	BGBBH03	IGBBH36	BGBBH36	EGBBH36	CGBBH03	PMBBH03	PFBBH03	PHBBH36	PJBBH36	PCBBH03	PGBBH03	PIBBH36	PKBBH36
Florida Gas, zone 2	IGBBJ03	BGBBJ03	IGBBJ36	BGBBJ36	EGBBJ36	CGBBJ03	PMBBJ03	PFBBJ03	PHBBJ36	PJBBJ36	PCBBJ03	PGBBJ03	PIBBJ36	PKBBJ36
Florida Gas, zone 3	IGBBK03	BGBBK03	IGBBK36	BGBBK36	EGBBK36	CGBBK03	PMBBK03	PFBBK03	PHBBK36	PJBBK36	PCBBK03	PGBBK03	PIBBK36	PKBBK36
Henry Hub	IGBBL03	BGBBL03	IGBBL36	BGBBL36	EGBBL36	CGBBL03	PMBBL03	PFBBL03	PHBBL36	PJBBL36	PCBBL03	PGBBL03	PIBBL36	PKBBL36
Pine Prairie Hub	IGBRU03	BGBRU03	IGBRU36	BGBRU36	EGBRU36	CGBRU03	PMBRU03	PFBRU03	PHBRU36	PJBRU36	PCBRU03	PGBRU03	PIBRU36	PKBRU36

**PLATTS LOCATIONS MONTHLY SYMBOLS**

Name of Indices Description of Symbol	Final Monthly Indices						Preliminary Daily Indices During Bidweek				Preliminary Bidweek To Date Indices			
	Index	Deal Count	Basis	Basis Deal Count	Fixed Price Equivalent	Tier	Preliminary Fixed Price	Preliminary Fixed Price Deal Count	Preliminary Basis	Preliminary Basis Deal Count	Preliminary Cumulative Fixed Price	Preliminary Cumulative Fixed Price Deal Count	Preliminary Cumulative Basis	Preliminary Cumulative Basis Deal Count
Market Data Category	GM	GM	GM	GM	GM	GM	GJ	GJ	GJ	GJ	GJ	GJ	GJ	GJ
Bates Published	h,l,u,w	u	h,l,u,w	u	u	u	h, l, c, w	u	h, l, c, w	u	h, l, c, w	u	h, l, c, w	u
Southern Natural, La.	IGBB003	BGBB003	IGBB036	BGBB036	EGBB036	CGBB003	PMBB003	PFBB003	PHBB036	PJBB036	PCBB003	PGBB003	PIBB036	PKBB036
Tennessee, La., 500 leg	IGBBP03	BGBBP03	IGBBP36	BGBBP36	EGBBP36	CGBBP03	PMBBP03	PFBBP03	PHBBP36	PJBBP36	PCBBP03	PGBBP03	PIBBP36	PKBBP36
Tennessee, La., 800 leg	IGBBQ03	BGBBQ03	IGBBQ36	BGBBQ36	EGBBQ36	CGBBQ03	PMBBQ03	PFBBQ03	PHBBQ36	PJBBQ36	PCBBQ03	PGBBQ03	PIBBQ36	PKBBQ36
Texas Eastern, ELA	IGBBS03	BGBBS03	IGBBS36	BGBBS36	EGBBS36	CGBBS03	PMBBS03	PFBBS03	PHBBS36	PJBBS36	PCBBS03	PGBBS03	PIBBS36	PKBBS36
Texas Eastern, M-1 30-inch (Kosi)	IGBDI03	BGBDI03	IGBDI36	BGBDI36	EGBDI36	CGBDI03	PMBDI03	PFBDI03	PHBDI36	PJBDI36	PCBDI03	PGBDI03	PIBDI36	PKBDI36
Texas Eastern, WLA	IGBRR03	BGBRR03	IGBRR36	BGBRR36	EGBRR36	CGBRR03	PMBRR03	PFBRR03	PHBRR36	PJBRR36	PCBRR03	PGBRR03	PIBRR36	PKBRR36
Texas Gas, zone 1	IGBA003	BGBA003	IGBA036	BGBA036	EGBA036	CGBA003	PMBAA03	PFBA003	PHBA036	PJBA036	PCBA003	PGBA003	PIBA036	PKBA036
Texas Gas, zone SL	IGBBT03	BGBBT03	IGBBT36	BGBBT36	EGBBT36	CGBBT03	PMBBT03	PFBBT03	PHBBT36	PJBBT36	PCBBT03	PGBBT03	PIBBT36	PKBBT36
Transco, zone 3	IGBBV03	BGBBV03	IGBBV36	BGBBV36	EGBBV36	CGBBV03	PMBBV03	PFBBV03	PHBBV36	PJBBV36	PCBBV03	PGBBV03	PIBBV36	PKBBV36
Transco, zone 4	IGBDJ03	BGBDJ03	IGBDJ36	BGBDJ36	EGBDJ36	CGBDJ03	PMBDJ03	PFBDJ03	PHBDJ36	PJBDJ36	PCBDJ03	PGBDJ03	PIBDJ36	PKBDJ36
Trunkline, LA	IGBER03	BGBER03	IGBER36	BGBER36	EGBER36	CGBER03	PMBER03	PFBER03	PHBER36	PJBER36	PCBER03	PGBER03	PIBER36	PKBER36
Trunkline, zone 1A	IGBGF03	BGBGF03	IGBGF36	BGBGF36	EGBGF36	CGBGF03	PMBGF03	PFBGF03	PHBGF36	PJBGF36	PCBGF03	PGBGF03	PIBGF36	PKBGF36
<b>Louisiana/Southeast Regional Average</b>	<b>IGHAA03</b>													
Cheyenne Hub	IGBC003	BGBC003	IGBC036	BGBC036	EGBC036	CGBC003	PMBCC03	PFBC003	PHBC036	PJBC036	PCBC003	PGBCC03	PIBC036	PKBC036
ClG, Rocky Mountains	IGBCK03	BGBCK03	IGBCK36	BGBCK36	EGBCK36	CGBCK03	PMBCK03	PFBCK03	PHBCK36	PJBCK36	PCBCK03	PGBCK03	PIBCK36	PKBCK36
Kern River, Wyoming	IGBCL03	BGBCL03	IGBCL36	BGBCL36	EGBCL36	CGBCL03	PMBCL03	PFBCL03	PHBCL36	PJBCL36	PCBCL03	PGBCL03	PIBCL36	PKBCL36
Northwest, Canadian border (Sumas)	IGBCT03	BGBCT03	IGBCT36	BGBCT36	EGBCT36	CGBCT03	PMBCT03	PFBCT03	PHBCT36	PJBCT36	PCBCT03	PGBCT03	PIBCT36	PKBCT36
Northwest, Rocky Mountains	IGBCP03	BGBCP03	IGBCP36	BGBCP36	EGBCP36	CGBCP03	PMBCP03	PFBCP03	PHBCP36	PJBCP36	PCBCP03	PGBCP03	PIBCP36	PKBCP36
PG&E, Malin	IGBD003	BGBD003	IGBD036	BGBD036	EGBD036	CGBD003	PMBD003	PFBD003	PHBD036	PJBD036	PCBD003	PGBD003	PIBD036	PKBD036
TCPL Alberta, AECO-C	IGBCU03	BGBCU03	IGBCU36	BGBCU36	EGBCU36	CGBCU03	PMBCU03	PFBCU03	PHBCU36	PJBCU36	PCBCU03	PGBCU03	PIBCU36	PKBCU36
Westcoast, station 2	IGBCZ03	BGB CZ03	IGBCZ36	BGB CZ36	EGBCZ36	CGBCZ03	PMB CZ03	PFBCZ03	PHBCZ36	PJB CZ36	PCB CZ03	PGB CZ03	PIB CZ36	PKB CZ36
<b>Rockies/Northwest Regional Average</b>	<b>IGIAA03</b>													
El Paso, Permian Basin	IGBAB03	BGBAB03	IGBAB36	BGBAB36	EGBAB36	CGBAB03	PMBAB03	PZBAB03	PHBAB36	PJBAB36	PCBAB03	PGBAB03	PIBAB36	PKBAB36
El Paso, San Juan Basin	IGBCH03	BGBCH03	IGBCH36	BGBCH36	EGBCH36	CGBCH03	PMBCH03	PZBCH03	PHBCH36	PJBCH36	PCBCH03	PGBCH03	PIBCH36	PKBCH36
El Paso, West Texas	IGBRT03	BGBRT03	IGBRT36	BGBRT36	EGBRT36	CGBRT03	PMBRT03	PFBRT03	PHBRT36	PJBRT36	PCBRT03	PGBRT03	PIBRT36	PKBRT36
Kern River, delivered	IGBRX03	BGBRX03	IGBRX36	BGBRX36	EGBRX36	CGBRX03	PMBRX03	PFBRX03	PHBRX36	PJBRX36	PCBRX03	PGBRX03	PIBRX36	PKBRX36
PG&E, city-gate	IGBEB03	BGBEB03	IGBEB36	BGBEB36	EGBEB36	CGBEB03	PMBEB03	PZBEB03	PHBEB36	PJBEB36	PCBEB03	PGBEB03	PIBEB36	PKBEB36
PG&E, South	IGBDM03	BGBDM03	IGBDM36	BGBDM36	EGBDM36	CGBDM03	PMBDM03	PZBDM03	PHBDM36	PJBDM36	PCBDM03	PGBDM03	PIBDM36	PKBDM36
SoCal Gas	IGBDL03	BGBDL03	IGBDL36	BGBDL36	EGBDL36	CGBDL03	PMBDL03	PZBDL03	PHBDL36	PJBDL36	PCBDL03	PGBDL03	PIBDL36	PKBDL36
SoCal Gas, city-gate	IGBGG03	BGBGG03	IGBGG36	BGBGG36	EGBGG36	CGBGG03	PMBGG03	PZBGG03	PHBGG36	PJBGG36	PCBGG03	PGBGG03	PIBGG36	PKBGG36
Transwestern, Permian Basin	IGBAE03	BGBAE03	IGBAE36	BGBAE36	EGBAE36	CGBAE03	PMBAE03	PZBAE03	PHBAE36	PJBAE36	PCBAE03	PGBAE03	PIBAE36	PKBAE36
Transwestern, San Juan Basin	IGBGK03	BGBGK03	IGBGK36	BGBGK36	EGBGK36	CGBGK03	PMBGK03	PZBGK03	PHBGK36	PJBGK36	PCBGK03	PGBGK03	PIBGK36	PKBGK36
Waha	IGBAD03	BGBAD03	IGBAD36	BGBAD36	EGBAD36	CGBAD03	PMBAD03	PZBAD03	PHBAD36	PJBAD36	PCBAD03	PGBAD03	PIBAD36	PKBAD36
<b>Southwest Regional Average</b>	<b>IGJAA03</b>													

Bates are defined as: high = h; Low = l; Index = u or Final Indices and c for Preliminary Indices; Volume = w

**PLATTS CANADIAN OTC INDICES DAILY SYMBOLS**

Name of Indices	Final Daily Indices By Trade Date			Final Daily Indices By Flow Date			
	Description of Symbol	Index	Absolute Range	Deal Count	Index	Absolute Range	Deal Count
Market Data Category	GD	GD	GD	GD	GD	GD	GD
Bates Published	c,w	h,l	u	c,w	h,l	u	u
Dawn, Ontario OTC	PVBCX90	PVBCX91	BGBCX92	PVBCX93	PVBCX94	BGBCX95	BGBCX95
Emerson, Viking GL OTC	PVBCW90	PVBCW91	BGBCW92	PVBCW93	PVBCW94	BGBCW95	BGBCW95
Northwest, Canadian border (Sumas) OTC	PVBCT90	PVVCT91	BGVCT92	PVBCT93	PVVCT94	BGVCT95	BGVCT95
TCPL Alberta, AECO-C OTC	PVBCU90	PVBCU91	BGBCU92	PVBCU93	PVBCU94	BGBCU95	BGBCU95
Westcoast, station 2 OTC	PVBCZ90	PVBCZ91	BGBCZ92	PVBCZ93	PVBCZ94	BGBCZ95	BGBCZ95

Bates are defined as: high = h; Low = l; Index = u or Final Indices and c for Preliminary Indices; Volume = w

**PLATTS CANADIAN OTC INDICES MONTHLY SYMBOLS**

Name of Indices	Final Monthly Indices	
	Description of Symbol	Deal Count
Market Data Category	GM	GM
Bates Published	h,l,c,w	u
Dawn, Ontario OTC	PVBCX96	BGBCX97
Emerson, Viking GL OTC	PVBCW96	BGBCW97
Northwest, Canadian border (Sumas) OTC	PVBCT96	BGVCT97
TCPL Alberta, AECO-C OTC	PVBCU96	BGBCU97
Westcoast, station 2 OTC	PVBCZ96	BGBCZ97

Bates are defined as: high = h; Low = l; Index = u or Final Indices and c for Preliminary Indices; Volume = w



**ICE LOCATIONS DAILY SYMBOLS**

Name of Indices Description of Symbol Market Data Category Bates Published	Final Daily Indices By Trade Date			Final Daily Indices By Flow Date		
	Index and Common Range	Absolute Range	Deal Count	Index	Absolute Range	Deal Count
	GD	GD	GD	GD	GD	GD
	h,l,c,w	h,l	u	h,l,c,w	h,l	u
ICE Agua Blanca Pool	JAAHU00	JAAHU20	JCCHU00	JAAHU21	JAAHU22	JCCHU21
ICE Agua Dulce Hub	JAAGI00	JAAGI20	JCCGI00	JAAGI21	JAAGI22	JCCGI21
ICE Algonquin CG (Excl. J and G Lateral deliveries)	JAAAA00	JAAAA20	JCCAA00	JAAAA21	JAAAA22	JCCAA21
ICE Algonquin Citygates (Excl. J Lateral deliveries)	JAAAB00	JAAAB20	JCCAB00	JAAAB21	JAAAB22	JCCAB21
ICE Algonquin, Millennium-Ramapo receipts	JAAHF00	JAAHF20	JCCHF00	JAAHF21	JAAHF22	JCCHF21
ICE Algonquin, TGP-Mahwah receipts	JAAHG00	JAAHG20	JCCHG00	JAAHG21	JAAHG22	JCCHG21
ICE Alliance, Chicago Exchange Hub	JAAAC00	JAAAC20	JCCAC00	JAAAC21	JAAAC22	JCCAC21
ICE Alliance, ANR Interconnect	JAAAD00	JAAAD20	JCCAD00	JAAAD21	JAAAD22	JCCAD21
ICE Alliance, Midwestern Interconnect	JAAF00	JAAF20	JCCF00	JAAF21	JAAF22	JCCF21
ICE Alliance, NGPL Interconnect	JAAAF00	JAAAF20	JCCAF00	JAAAF21	JAAAF22	JCCAF21
ICE Alliance, Nicor Interconnect	JAAAG00	JAAAG20	JCCAG00	JAAAG21	JAAAG22	JCCAG21
ICE Alliance, Vector Interconnect	JAAAH00	JAAAH20	JCCAH00	JAAAH21	JAAAH22	JCCAH21
ICE ANR, SE Transmission Pool	JAAAI00	JAAAI20	JCCAI00	JAAAI21	JAAAI22	JCCAI21
ICE ANR, SE Gathering Pool	JAAAJ00	JAAAJ20	JCCAJ00	JAAAJ21	JAAAJ22	JCCAJ21
ICE ANR, Joliet Hub CDP	JAAAK00	JAAAK20	JCCAK00	JAAAK21	JAAAK22	JCCAK21
ICE Atmos, zone 3, receipts	JAAAL00	JAAAL20	JCCAL00	JAAAL21	JAAAL22	JCCAL21
ICE Banquete Hub	JAAHX00	JAAHX20	JCCHX00	JAAHX21	JAAHX22	JCCHX21
ICE Bennington, Oklahoma (buyer's choice)	JAAHK00	JAAHK20	JCCHK00	JAAHK21	JAAHK22	JCCHK21
ICE Bluewater Gas Storage	JAAAN00	JAAAN20	JCCAN00	JAAAN21	JAAAN22	JCCAN21
ICE Bobcat Interconnect (buyers' choice dlvd)	JAAA000	JAAA020	JCCA000	JAAA021	JAAA022	JCCA021
ICE Bobcat Storage (In-ground transfer only)	JAAP000	JAAP200	JCCAP00	JAAP210	JAAP220	JCCAP21
ICE Carthage Hub Tailgate	JAAQ000	JAAQ200	JCCAQ00	JAAQ210	JAAQ220	JCCAQ21
ICE CIG - Mainline (sellers' choice, non-lateral)	JAAFY00	JAAFY20	JCCFY00	JAAFY21	JAAFY22	JCCFY21
ICE CIG, Mainline Pool	JAAFZ00	JAAFZ20	JCCFZ00	JAAFZ21	JAAFZ22	JCCFZ21
ICE CIG - Mainline South (sellers' choice)	JAAAT00	JAAAT20	JCCAT00	JAAAT21	JAAAT22	JCCAT21
ICE Clarington Tennessee	JAAFI00	JAAFI20	JCCFI00	JAAFI21	JAAFI22	JCCFI21
ICE Columbia Gas, A04 Pool	JAAAU00	JAAAU20	JCCAU00	JAAAU21	JAAAU22	JCCAU21
ICE Columbia Gas, A06 Pool	JAAAV00	JAAAV20	JCCAV00	JAAAV21	JAAAV22	JCCAV21
ICE Columbia Gas, A08 Pool	JABBY00	JABBY20	JCBBY00	JABBY21	JABBY22	JCBBY21
ICE Columbia Gas, Segmentation Pool	JAAAW00	JAAAW20	JCCAW00	JAAAW21	JAAAW22	JCCAW21
ICE Dominion Energy, Cove Point, on system delivery	JAAHM00	JAAHM20	JCCHM00	JAAHM21	JAAHM22	JCCHM21
ICE Egan Interconnect (buyers' choice delivered)	JAAAZ00	JAAAZ20	JCCAZ00	JAAAZ21	JAAAZ22	JCCAZ21
ICE Egan Storage (In-ground transfer only)	JAABA00	JAABA20	JCCBA00	JAABA21	JAABA22	JCCBA21
ICE El Paso, Anadarko Pool	JAAHZ00	JAAHZ20	JCCHZ00	JAAHZ21	JAAHZ22	JCCHZ21
ICE El Paso, Keystone Pool	JAABB00	JAABB20	JCCBB00	JAABB21	JAABB22	JCCBB21
ICE El Paso, Plains Pool	JAABC00	JAABC20	JCCBC00	JAABC21	JAABC22	JCCBC21

**ICE LOCATIONS DAILY SYMBOLS**

Name of Indices Description of Symbol Market Data Category Bates Published	Final Daily Indices By Trade Date			Final Daily Indices By Flow Date		
	Index and Common Range	Absolute Range	Deal Count	Index	Absolute Range	Deal Count
	GD	GD	GD	GD	GD	GD
	h,l,c,w	h,l	u	h,l,c,w	h,l	u
ICE El Paso, Waha Pool	JAABD00	JAABD20	JCCBD00	JAABD21	JAABD22	JCCBD21
ICE Enable Gas, Flex Pool only	JAABE00	JAABE20	JCCBE00	JAABE21	JAABE22	JCCBE21
ICE Enable Gas, North Pool only	JAABF00	JAABF20	JCCBF00	JAABF21	JAABF22	JCCBF21
ICE Enable Gas, Perryville Hub	JAABG00	JAABG20	JCCBG00	JAABG21	JAABG22	JCCBG21
ICE Enable Gas, South Pool only	JAABH00	JAABH20	JCCBH00	JAABH21	JAABH22	JCCBH21
ICE Enable Gas, West (W1 or W2 as mutually agreed)	JAABI00	JAABI20	JCCBI00	JAABI21	JAABI22	JCCBI21
ICE Enable Gas, West Pool	JAABJ00	JAABJ20	JCCBJ00	JAABJ21	JAABJ22	JCCBJ21
ICE ENT, STX Map	JAAHT00	JAAHT20	JCCHT00	JAAHT21	JAAHT22	JCCHT21
ICE ETC, Cleburne	JAAHH00	JAAHH20	JCCHH00	JAAHH21	JAAHH22	JCCHH21
ICE ETC, Maypearl	JAABK00	JAABK20	JCCBK00	JAABK21	JAABK22	JCCBK21
ICE GCX West Pool	JAAWZ00	JAAWK20	JCCWK00	JAAWK21	JAAWK22	JCCWK21
ICE Gillis Hub	JAAWY00	JAAWL20	JCCWL00	JAAWL21	JAAWL22	JCCWL21
ICE Golden Triangle Storage & Hub	JAABL00	JAABL20	JCCBL00	JAABL21	JAABL22	JCCBL21
ICE Great Lakes Gas, St. Clair	JAABM00	JAABM20	JCCBM00	JAABM21	JAABM22	JCCBM21
ICE Guardian, Guardian Hub	JAABN00	JAABN20	JCCBN00	JAABN21	JAABN22	JCCBN21
ICE Gulf South, Perryville Exchange Point	JAABO00	JAABO20	JCCBO00	JAABO21	JAABO22	JCCBO21
ICE Gulf South, Pool Area #16	JAABP00	JAABP20	JCCBP00	JAABP21	JAABP22	JCCBP21
ICE HPL, East Texas Pool	JAABR00	JAABR20	JCCBR00	JAABR21	JAABR22	JCCBR21
ICE HSC-Kinder Morgan	JAAWX00	JAAWM20	JCCWM00	JAAWM21	JAAWM22	JCCWM21
ICE Iroquois, zone 2 (non-Hunts Point/Eastchester Lateral)	JAABT00	JAABT20	JCCBT00	JAABT21	JAABT22	JCCBT21
ICE Iroquois, zone 2 Hunts Point/Eastchester Lateral	JAABU00	JAABU20	JCCBU00	JAABU21	JAABU22	JCCBU21
ICE Jefferson Island Storage and Hub	JAABV00	JAABV20	JCCBV00	JAABV21	JAABV22	JCCBV21
ICE Katy, ENSTOR Pool (excl. Kinder Morgan Texas)	JAABW00	JAABW20	JCCBW00	JAABW21	JAABW22	JCCBW21
ICE Katy, Lonestar (Warranted as Intrastate)	JAABX00	JAABX20	JCCBX00	JAABX21	JAABX22	JCCBX21
ICE Katy, Lonestar Interstate	JAABY00	JAABY20	JCCBY00	JAABY21	JAABY22	JCCBY21
ICE Katy, Oasis Pipeline	JAABZ00	JAABZ20	JCCBZ00	JAABZ21	JAABZ22	JCCBZ21
ICE Kern River, on system receipt	JAACA00	JAACA20	JCCCA00	JAACA21	JAACA22	JCCCA21
ICE Maritimes, Hubline and Beverly Salem	JAACB00	JAACB20	JCCCB00	JAACB21	JAACB22	JCCCB21
ICE Maritimes and Northeast Pipeline US (buyer's choice dlvd)	JAACC00	JAACC20	JCCCC00	JAACC21	JAACC22	JCCCC21
ICE MEP, Lamar	JABFW00	JABFW20	JCBFW00	JABFW21	JABFW22	JCBFW21
ICE Millennium Pipeline - buyers' choice delivered	JAAHA00	JAAHA20	JCCHA00	JAAHA21	JAAHA22	JCCHA21
ICE Moss Bluff Interconnect (buyers' choice dlvd)	JAACD00	JAACD20	JCCCD00	JAACD21	JAACD22	JCCCD21
ICE Moss Bluff Storage (In-ground transfers only)	JAACE00	JAACE20	JCCCE00	JAACE21	JAACE22	JCCCE21
ICE MS Hub Storage	JAACF00	JAACF20	JCCCF00	JAACF21	JAACF22	JCCCF21
ICE NGPL, Amarillo Pooling PIN	JAACG00	JAACG20	JCCCG00	JAACG21	JAACG22	JCCCG21
ICE NGPL, Amarillo Storage PIN	JAACH00	JAACH20	JCCCH00	JAACH21	JAACH22	JCCCH21

## ICE LOCATIONS DAILY SYMBOLS

Name of Indices Description of Symbol Market Data Category Bates Published	Final Daily Indices By Trade Date			Final Daily Indices By Flow Date		
	Index and Common Range	Absolute Range	Deal Count	Index	Absolute Range	Deal Count
	GD	GD	GD	GD	GD	GD
	h,l,c,w	h,l	u	h,l,c,w	h,l	u
ICE NGPL, Gulf Coast Mainline Pool	JAACI00	JAACI20	JCCCI00	JAACI21	JAACI22	JCCCI21
ICE NGPL, Iowa-Illinois GC Pool	JAAHN00	JAAHN20	JCCHN00	JAAHN21	JAAHN22	JCCHN21
ICE NGPL, Iowa-Illinois AM Pool	JAAH000	JAAH020	JCCH000	JAAH021	JAAH022	JCCH021
ICE NGPL, Iowa-Illinois GC Storage	JAAHP00	JAAHP20	JCCHP00	JAAHP21	JAAHP22	JCCHP21
ICE NGPL, Iowa-Illinois AM Storage	JAAHQ00	JAAHQ20	JCCHQ00	JAAHQ21	JAAHQ22	JCCHQ21
ICE NGPL, Louisiana Pooling PIN	JAACL00	JAACL20	JCCCL00	JAACL21	JAACL22	JCCCL21
ICE NGPL, Louisiana Storage PIN	JAACM00	JAACM20	JCCCM00	JAACM21	JAACM22	JCCCM21
ICE NGPL, Mid-American Citygate	JAACN00	JAACN20	JCCCN00	JAACN21	JAACN22	JCCCN21
ICE NGPL, Mid-Continent Storage PIN	JAAC000	JAAC020	JCC0000	JAAC021	JAAC022	JCC0021
ICE NGPL, TXOK East Pool	JAACP00	JAACP20	JCCCP00	JAACP21	JAACP22	JCCCP21
ICE NGPL, TXOK West Pool	JAACQ00	JAACQ20	JCC0Q00	JAACQ21	JAACQ22	JCC0Q21
ICE NorTex, Tolar Hub	JAACR00	JAACR20	JCCCR00	JAACR21	JAACR22	JCCCR21
ICE Northern Border, Harper Transfer Point	JAACS00	JAACS20	JCCCS00	JAACS21	JAACS22	JCCCS21
ICE Northern Border, Nicor Interconnect	JAAC000	JAAC020	JCC0000	JAAC021	JAAC022	JCC0021
ICE Northern Border, Vector Interconnect	JAACU00	JAACU20	JCCCU00	JAACU21	JAACU22	JCCCU21
ICE Northern Border, Will County	JAACV00	JAACV20	JCCCV00	JAACV21	JAACV22	JCCCV21
ICE Northern Natural, Mid 13 - 16A Pool	JAACW00	JAACW20	JCCCW00	JAACW21	JAACW22	JCCCW21
ICE Northern Natural, Mid 1-7 Pool	JAACX00	JAACX20	JCCCX00	JAACX21	JAACX22	JCCCX21
ICE Northern Natural, Mid 8 -12 Pool	JAACY00	JAACY20	JCCCY00	JAACY21	JAACY22	JCCCY21
ICE Oasis, Waha Pool	JAACZ00	JAACZ20	JCC0Z00	JAACZ21	JAACZ22	JCC0Z21
ICE ONEOK, Westex Pool	JAADA00	JAADA20	JCCDA00	JAADA21	JAADA22	JCCDA21
ICE Opal Plant Tailgate	JAADB00	JAADB20	JCCDB00	JAADB21	JAADB22	JCCDB21
ICE PG&E, Daggett	JAADC00	JAADC20	JCCDC00	JAADC21	JAADC22	JCCDC21
ICE PG&E, Kern River Station	JAADD00	JAADD20	JCCDD00	JAADD21	JAADD22	JCCDD21
ICE PG&E-Onyx Hill	JAAHB00	JAAHB20	JCCHB00	JAAHB21	JAAHB22	JCCHB21
ICE PG&E, Topock	JAADE00	JAADE20	JCCDE00	JAADE21	JAADE22	JCCDE21
ICE Pioneer Plant Tailgate	JAADG00	JAADG20	JCCDG00	JAADG21	JAADG22	JCCDG21
ICE PNGTS (buyer's choice dlvd)	JAADH00	JAADH20	JCCDH00	JAADH21	JAADH22	JCCDH21
ICE Questar, North Pool	JAADI00	JAADI20	JCCDI00	JAADI21	JAADI22	JCCDI21
ICE Questar, South Pool	JAADJ00	JAADJ20	JCCDJ00	JAADJ21	JAADJ22	JCCDJ21
ICE REX (East), delivered into ANR	JAADK00	JAADK20	JCCDK00	JAADK21	JAADK22	JCCDK21
ICE REX (East), delivered into Lebanon Hub	JAAHC00	JAAHC20	JCCHC00	JAAHC21	JAAHC22	JCCHC21
ICE REX (East), delivered into Midwestern Gas	JAADL00	JAADL20	JCCDL00	JAADL21	JAADL22	JCCDL21
ICE REX (East), delivered into NGPL	JAADM00	JAADM20	JCCDM00	JAADM21	JAADM22	JCCDM21
ICE REX (East), delivered into Panhandle	JAADN00	JAADN20	JCCDN00	JAADN21	JAADN22	JCCDN21
ICE REX (East), delivered into Trunkline	JAADO00	JAADO20	JCCDO00	JAADO21	JAADO22	JCCDO21

**ICE LOCATIONS DAILY SYMBOLS**

Name of Indices Description of Symbol Market Data Category Bates Published	Final Daily Indices By Trade Date			Final Daily Indices By Flow Date		
	Index and Common Range	Absolute Range	Deal Count	Index	Absolute Range	Deal Count
	GD	GD	GD	GD	GD	GD
	h,l,c,w	h,l	u	h,l,c,w	h,l	u
ICE REX (West), delivered into ANR	JAADP00	JAADP20	JCCDP00	JAADP21	JAADP22	JCCDP21
ICE REX (West), delivered into Northern Natural	JAADQ00	JAADQ20	JCCDQ00	JAADQ21	JAADQ22	JCCDQ21
ICE REX (West), delivered into Panhandle	JAADR00	JAADR20	JCCDR00	JAADR21	JAADR22	JCCDR21
ICE REX, zone 3 receipts	JAHS00	JAHS20	JCHS00	JAAHS21	JAAHS22	JCHS21
ICE Rover, delivered into ANR	JAAHI00	JAAHI20	JCCHI00	JAAHI21	JAAHI22	JCCHI21
ICE Rover, delivered into Panhandle	JAAHJ00	JAAHJ20	JCCHJ00	JAAHJ21	JAAHJ22	JCCHJ21
ICE Rover, receipts	JAAHR00	JAAHR20	JCCHR00	JAAHR21	JAAHR22	JCCHR21
ICE Ruby, Onyx Hill	JAADS00	JAADS20	JCCDS00	JAADS21	JAADS22	JCCDS21
ICE Ruby, Receipt Pool	JAADT00	JAADT20	JCCDT00	JAADT21	JAADT22	JCCDT21
ICE Ryckman Creek Gas Storage	JAADU00	JAADU20	JCCDU00	JAADU21	JAADU22	JCCDU21
ICE Salt Plains Storage (buyers' choice)	JAADV00	JAADV20	JCCDV00	JAADV21	JAADV22	JCCDV21
ICE Salt Plains Storage (In-ground transfer only)	JAADW00	JAADW20	JCCDW00	JAADW21	JAADW22	JCCDW21
ICE Socal, Blythe	JAADX00	JAADX20	JCCDX00	JAADX21	JAADX22	JCCDX21
ICE Socal, Ehrenberg (delivered)	JAADY00	JAADY20	JCCDY00	JAADY21	JAADY22	JCCDY21
ICE Socal, Firm Storage only (Citygate)	JAADZ00	JAADZ20	JCCDZ00	JAADZ21	JAADZ22	JCCDZ21
ICE Socal, In-ground transfer only (Citygate)	JAAEA00	JAAEA20	JCCEA00	JAAEA21	JAAEA22	JCCEA21
ICE Socal, Interruptible Storage only (Citygate)	JAAEB00	JAAEB20	JCCEB00	JAAEB21	JAAEB22	JCCEB21
ICE Socal, Kern River Station	JAAEC00	JAAEC20	JCCEC00	JAAEC21	JAAEC22	JCCEC21
ICE Socal, Kramer Junction	JAAED00	JAAED20	JCCED00	JAAED21	JAAED22	JCCED21
ICE Socal, Needles	JAAEE00	JAAEE20	JCCEE00	JAAEE21	JAAEE22	JCCEE21
ICE Socal, sellers' choice dlvd incl. CA production	JAAEF00	JAAEF20	JCCEF00	JAAEF21	JAAEF22	JCCEF21
ICE Socal - Topock	JAAHD00	JAAHD20	JCCHD00	JAAHD21	JAAHD22	JCCHD21
ICE Socal, Topock, El Paso	JAAEG00	JAAEG20	JCCEG00	JAAEG21	JAAEG22	JCCEG21
ICE Socal, Topock, Transwestern	JAAEH00	JAAEH20	JCCEH00	JAAEH21	JAAEH22	JCCEH21
ICE Socal, Wheeler Ridge	JAAEI00	JAAEI20	JCCEI00	JAAEI21	JAAEI22	JCCEI21
ICE Sonat - Zone 0	JAAHE00	JAAHE20	JCCHE00	JAAHE21	JAAHE22	JCCHE21
ICE Sonat, Zone 0 South Louisiana Pool	JAAEJ00	JAAEJ20	JCCJE00	JAAEJ21	JAAEJ22	JCCJE21
ICE Sonat, Zone 1 North Pool	JAAEK00	JAAEK20	JCCEK00	JAAEK21	JAAEK22	JCCEK21
ICE Southern Pines Hub	JAAEM00	JAAEM20	JCCEM00	JAAEM21	JAAEM22	JCCEM21
ICE Stagecoach Marcellus Hub	JAAEN00	JAAEN20	JCCEN00	JAAEN21	JAAEN22	JCCEN21
ICE Stingray, pool delivery	JAAEO00	JAAEO20	JCCEO00	JAAEO21	JAAEO22	JCCEO21
ICE Tennessee, zone 0 North	JAAEP00	JAAEP20	JCCEP00	JAAEP21	JAAEP22	JCCEP21
ICE Tennessee, zone 0 South	JAAEQ00	JAAEQ20	JCCEQ00	JAAEQ21	JAAEQ22	JCCEQ21
ICE Tennessee, zone 0 South Texas Border Pool	JABFY00	JABFY20	JCBFY00	JABFY21	JABFY22	JCBFY21
ICE Tennessee, zone 1 100 Leg Pool	JAAER00	JAAER20	JCCER00	JAAER21	JAAER22	JCCER21
ICE Tennessee, zone 1 800 Leg Pool	JAAAX00	JAAAX20	JCCXM00	JAAAX21	JAAAX22	JCCXM21

### ICE LOCATIONS DAILY SYMBOLS

Name of Indices Description of Symbol Market Data Category Bates Published	Final Daily Indices By Trade Date			Final Daily Indices By Flow Date		
	Index and Common Range	Absolute Range	Deal Count	Index	Absolute Range	Deal Count
	GD	GD	GD	GD	GD	GD
	h,l,c,w	h,l	u	h,l,c,w	h,l	u
ICE Tennessee, zone 1, Station 87 Pool	JAAES00	JAAES20	JCCES00	JAAES21	JAAES22	JCCES21
ICE Tennessee, zone 4, station 219 Pool	JAAET00	JAAET20	JCCET00	JAAET21	JAAET22	JCCET21
ICE Texas Eastern, M2 Zone (delivered)	JAAEV00	JAAEV20	JCCEV00	JAAEV21	JAAEV22	JCCEV21
ICE Texas Eastern, Manhattan Lateral (delivered)	JAAEW00	JAAEW20	JCCEW00	JAAEW21	JAAEW22	JCCEW21
ICE Texas Gas, Mainline Pool	JAAEX00	JAAEX20	JCCEX00	JAAEX21	JAAEX22	JCCEX21
ICE Texas Gas, North Louisiana Pool	JAAEY00	JAAEY20	JCCFY00	JAAEY21	JAAEY22	JCCFY21
ICE Transco, River Road	JABFW00	JABFW20	JCBFW00	JABFW21	JABFW22	JCBFW21
ICE Transco, zone 6 (non-NY north mainline)	JAAEZ00	JAAEZ20	JCCFZ00	JAAEZ21	JAAEZ22	JCCFZ21
ICE Transco, zone 6 station 210 Pool	JAAFA00	JAAFA20	JCCFA00	JAAFA21	JAAFA22	JCCFA21
ICE Transwestern, Central Pool	JAAFB00	JAAFB20	JCCFB00	JAAFB21	JAAFB22	JCCFB21
ICE Transwestern, Panhandle Pool	JAAFC00	JAAFC20	JCCFC00	JAAFC21	JAAFC22	JCCFC21
ICE Transwestern, West Texas Pool	JAAFD00	JAAFD20	JCCFD00	JAAFD21	JAAFD22	JCCFD21
ICE Tres Palacios Hub - Injection	JAAFE00	JAAFE20	JCCFE00	JAAFE21	JAAFE22	JCCFE21
ICE Tres Palacios Hub - Withdrawal	JAAFF00	JAAFF20	JCCFF00	JAAFF21	JAAFF22	JCCFF21
ICE Waha Hub, West Texas (buyer's choice dlvd)	JAAF00	JAAF20	JCCF00	JAAF21	JAAF22	JCCF21
ICE WIC, Pool	JAAFH00	JAAFH20	JCCFH00	JAAFH21	JAAFH22	JCCFH21

Bates are defined as: high = h; Low = l; Index = u or Final Indices and c for Preliminary Indices; Volume = w

### ICE LOCATIONS MONTHLY SYMBOLS

Name of Indices Description of Symbol Market Data Category Bates Published	Final Monthly Indices				Preliminary Daily Indices During Bidweek				Preliminary Bidweek To Date Indices			
	Index	Deal Count	Basis	Basis Deal Count	Preliminary Fixed Price	Preliminary Fixed Price Deal Count	Preliminary Basis	Preliminary Basis Deal Count	Preliminary Cumulative Fixed Price	Preliminary Cumulative Fixed Price Deal Count	Preliminary Cumulative Basis	Preliminary Cumulative Basis Deal Count
	GM	GM	GM	GM	GJ	GJ	GJ	GJ	GJ	GJ	GJ	GJ
	h,l,c,w	u	h,l,c,w	u	h,l,c,w	u	h,l,c,w	u	h,l,c,w	u	h,l,c,w	u
ICE Agua Blanca Pool	JAAHU03	JDDHU03	JAAHU36	JDDHU36	JBBHU03	JEEHU03	JBBHU36	JEEHU36	JCCHU03	JFFHU03	JCCHU36	JFFHU36
ICE Agua Dulce Hub	JAAGI03	JDDGI03	JAAGI36	JDDGI36	JBBGI03	JEEGI03	JBBGI36	JEEGI36	JCCGI03	JFFGI03	JCCGI36	JFFGI36
ICE Algonquin CG (Excl. J and G Lateral deliveries)	JAAAA03	JDDAA03	JAAAA36	JDDAA36	JBBAA03	JEEAA03	JBBAA36	JEEAA36	JCCAA03	JFFAA03	JCCAA36	JFFAA36
ICE Algonquin Citygates (Excl. J Lateral deliveries)	JAAAB03	JDDAB03	JAAAB36	JDDAB36	JBBAB03	JEEAB03	JBBAB36	JEEAB36	JCCAB03	JFFAB03	JCCAB36	JFFAB36
ICE Algonquin, Millennium-Ramapo receipts	JAAHF03	JDDHF03	JAAHF36	JDDHF36	JBBHF03	JEEHF03	JBBHF36	JEEHF36	JCCHF03	JFFHF03	JCCHF36	JFFHF36
ICE Algonquin, TGP-Mahwah receipts	JAAHG03	JDDHG03	JAAHG36	JDDHG36	JBBHG03	JEEHG03	JBBHG36	JEEHG36	JCCHG03	JFFHG03	JCCHG36	JFFHG36
ICE Alliance, Chicago Exchange Hub	JAAAC03	JDDAC03	JAAAC36	JDDAC36	JBBAC03	JEEAC03	JBBAC36	JEEAC36	JCCAC03	JFFAC03	JCCAC36	JFFAC36
ICE Alliance, ANR Interconnect	JAAAD03	JDDAD03	JAAAD36	JDDAD36	JBBAD03	JEEAD03	JBBAD36	JEEAD36	JCCAD03	JFFAD03	JCCAD36	JFFAD36
ICE Alliance, Midwestern Interconnect	JAAFX03	JDDFX03	JAAFX36	JDDFX36	JBBFX03	JEEFX03	JBBFX36	JEEFX36	JCCFX03	JFFFX03	JCCFX36	JFFFX36
ICE Alliance, NGPL Interconnect	JAAAF03	JDDAF03	JAAAF36	JDDAF36	JBBAF03	JEEAF03	JBBAF36	JEEAF36	JCCAF03	JFFAF03	JCCAF36	JFFAF36
ICE Alliance, Nicor Interconnect	JAAAG03	JDDAG03	JAAAG36	JDDAG36	JBBAG03	JEEAG03	JBBAG36	JEEAG36	JCCAG03	JFFAG03	JCCAG36	JFFAG36

**ICE LOCATIONS MONTHLY SYMBOLS**

Name of Indices Description of Symbol	Final Monthly Indices				Preliminary Daily Indices During Bidweek				Preliminary Bidweek To Date Indices			
	Index	Deal Count	Basis	Basis Deal Count	Preliminary Fixed Price	Preliminary Fixed Price Deal Count	Preliminary Basis	Preliminary Basis Deal Count	Preliminary Cumulative Fixed Price	Preliminary Cumulative Fixed Price Deal Count	Preliminary Cumulative Basis	Preliminary Cumulative Basis Deal Count
Market Data Category	GM	GM	GM	GM	GJ	GJ	GJ	GJ	GJ	GJ	GJ	GJ
Bates Published	h,l,c,w	u	h,l,c,w	u	h,l,c,w	u	h,l,c,w	u	h,l,c,w	u	h,l,c,w	u
ICE Alliance, Vector Interconnect	JAAAH03	JDDAH03	JAAAH36	JDDAH36	JBBAH03	JEEAH03	JBBAH36	JEEAH36	JCCA03	JFFAH03	JCCA36	JFFAH36
ICE ANR, SE Transmission Pool	JAAAI03	JDDAI03	JAAAI36	JDDAI36	JBBAI03	JEEAI03	JBBAI36	JEEAI36	JCCAI03	JFFAI03	JCCAI36	JFFAI36
ICE ANR, SE Gathering Pool	JAAA03	JDDA03	JAAA36	JDDA36	JBBA03	JEEA03	JBBA36	JEEA36	JCCA03	JFFA03	JCCA36	JFFA36
ICE ANR, Joliet Hub CDP	JAAAK03	JDDAK03	JAAAK36	JDDAK36	JBBAK03	JEEAK03	JBBAK36	JEEAK36	JCCAK03	JFFAK03	JCCAK36	JFFAK36
ICE Atmos, zone 3, receipts	JAAAL03	JDDAL03	JAAAL36	JDDAL36	JBBAL03	JEEAL03	JBBAL36	JEEAL36	JCCAL03	JFFAL03	JCCAL36	JFFAL36
ICE Banquete Hub	JAAHX03	JDDHX03	JAAHX36	JDDHX36	JBBHX03	JEEHX03	JBBHX36	JEEHX36	JCCHX03	JFFHX03	JCCHX36	JFFHX36
ICE Bennington, Oklahoma (buyer's choice)	JAAHK03	JDDHK03	JAAHK36	JDDHK36	JBBHK03	JEEHK03	JBBHK36	JEEHK36	JCCHK03	JFFHK03	JCCHK36	JFFHK36
ICE Bluewater Gas Storage	JAAAN03	JDDAN03	JAAAN36	JDDAN36	JBBAN03	JEEAN03	JBBAN36	JEEAN36	JCCAN03	JFFAN03	JCCAN36	JFFAN36
ICE Bobcat Interconnect (buyers' choice dlvd)	JAAA03	JDDA03	JAAA36	JDDA36	JBBA03	JEEA03	JBBA36	JEEA36	JCCA03	JFFA03	JCCA36	JFFA36
ICE Bobcat Storage (In-ground transfer only)	JAAP03	JDDAP03	JAAP36	JDDAP36	JBBAP03	JEEAP03	JBBAP36	JEEAP36	JCCAP03	JFFAP03	JCCAP36	JFFAP36
ICE Carthage Hub Tailgate	JAAAQ03	JDDAQ03	JAAAQ36	JDDAQ36	JBBAQ03	JEEAQ03	JBBAQ36	JEEAQ36	JCCAQ03	JFFAQ03	JCCAQ36	JFFAQ36
ICE CIG - Mainline (sellers' choice, non-lateral)	JAAFY03	JDDFY03	JAAFY36	JDDFY36	JBBFY03	JEEFY03	JBBFY36	JEEFY36	JCCFY03	JFFFY03	JCCFY36	JFFFY36
ICE CIG, Mainline Pool	JAAFZ03	JDDFZ03	JAAFZ36	JDDFZ36	JBBFZ03	JEEFZ03	JBBFZ36	JEEFZ36	JCCFZ03	JFFFZ03	JCCFZ36	JFFFZ36
ICE CIG - Mainline South (sellers' choice)	JAAAT03	JDDAT03	JAAAT36	JDDAT36	JBBAT03	JEEAT03	JBBAT36	JEEAT36	JCCAT03	JFFAT03	JCCAT36	JFFAT36
ICE Clarington Tennessee	JAXA03	JDDXA03	JAXA36	JDDXA36	JBBXA03	JEEXA03	JBBXA36	JEEXA36	JCCXA03	JFFXA03	JCCXA36	JFFXA36
ICE Columbia Gas, A04 Pool	JAAAU03	JDDAU03	JAAAU36	JDDAU36	JBBAU03	JEEAU03	JBBAU36	JEEAU36	JCCAU03	JFFAU03	JCCAU36	JFFAU36
ICE Columbia Gas, A06 Pool	JAAAV03	JDDAV03	JAAAV36	JDDAV36	JBBAV03	JEEAV03	JBBAV36	JEEAV36	JCCAV03	JFFAV03	JCCAV36	JFFAV36
ICE Columbia Gas, A08 Pool	JABBY03	JDBBY03	JABBY36	JDBBY36	JBCBY03	JEBBY03	JBCBY36	JEBBY36	JCCBY03	JFFBY03	JCCBY36	JFFBY36
ICE Columbia Gas, Segmentation Pool	JAAAW03	JDDAW03	JAAAW36	JDDAW36	JBBAW03	JEEAW03	JBBAW36	JEEAW36	JCCAW03	JFFAW03	JCCAW36	JFFAW36
ICE Dominion Energy, Cove Point, on system delivery	JAAHM03	JDDHM03	JAAHM36	JDDHM36	JBBHM03	JEEHM03	JBBHM36	JEEHM36	JCCHM03	JFFHM03	JCCHM36	JFFHM36
ICE Dominion, North Point	JAAFI03	JDDFI03	JAAFI36	JDDFI36	JBBFI03	JEEFI03	JBBFI36	JEEFI36	JCCFI03	JFFFI03	JCCFI36	JFFFI36
ICE Dracut Interconnect - Maritimes, Tennessee, Portland	JAAFJ03	JDDFJ03	JAAFJ36	JDDFJ36	JBBFJ03	JEEFJ03	JBBFJ36	JEEFJ36	JCCFJ03	JFFFJ03	JCCFJ36	JFFFJ36
ICE Egan Interconnect (buyers' choice delivered)	JAAAZ03	JDDAZ03	JAAAZ36	JDDAZ36	JBBAZ03	JEEAZ03	JBBAZ36	JEEAZ36	JCCAZ03	JFFAZ03	JCCAZ36	JFFAZ36
ICE Egan Storage (In-ground transfer only)	JABBA03	JDDBA03	JABBA36	JDDBA36	JBBBA03	JEEBA03	JBBBA36	JEEBA36	JCCBA03	JFFBA03	JCCBA36	JFFBA36
ICE El Paso, Anadarko Pool	JAAHZ03	JDDHZ03	JAAHZ36	JDDHZ36	JBBHZ03	JEEHZ03	JBBHZ36	JEEHZ36	JCCHZ03	JFFHZ03	JCCHZ36	JFFHZ36
ICE El Paso, Keystone Pool	JABBB03	JDBBB03	JABBB36	JDBBB36	JBBBB03	JEEBB03	JBBBB36	JEEBB36	JCCBB03	JFFBB03	JCCBB36	JFFBB36
ICE El Paso, Plains Pool	JABBC03	JDBBC03	JABBC36	JDBBC36	JBBBC03	JEEBC03	JBBBC36	JEEBC36	JCCBC03	JFFBC03	JCCBC36	JFFBC36
ICE El Paso, San Juan Basin, Blanco Pool (Primary only)	JAAFK03	JDDFK03	JAAFK36	JDDFK36	JBBFK03	JEEFK03	JBBFK36	JEEFK36	JCCFK03	JFFFK03	JCCFK36	JFFFK36
ICE El Paso, San Juan Basin, Bondad Station (Primary only)	JAAFL03	JDDFL03	JAAFL36	JDDFL36	JBBFL03	JEEFL03	JBBFL36	JEEFL36	JCCFL03	JFFFL03	JCCFL36	JFFFL36
ICE El Paso, South Mainline (buyers' choice)	JAAFM03	JDDFM03	JAAFM36	JDDFM36	JBBFM03	JEEFM03	JBBFM36	JEEFM36	JCCFM03	JFFFM03	JCCFM36	JFFFM36
ICE El Paso, Waha Pool	JABBD03	JDBBD03	JABBD36	JDBBD36	JBBBD03	JEEBD03	JBBBD36	JEEBD36	JCCBD03	JFFBD03	JCCBD36	JFFBD36
ICE Enable Gas, Flex Pool only	JABBE03	JDBBE03	JABBE36	JDBBE36	JBBBE03	JEEBE03	JBBBE36	JEEBE36	JCCBE03	JFFBE03	JCCBE36	JFFBE36
ICE Enable Gas, North Pool only	JABBF03	JDBBF03	JABBF36	JDBBF36	JBBBF03	JEEBF03	JBBBF36	JEEBF36	JCCBF03	JFFBF03	JCCBF36	JFFBF36

**ICE LOCATIONS MONTHLY SYMBOLS**

Name of Indices Description of Symbol	Final Monthly Indices				Preliminary Daily Indices During Bidweek				Preliminary Bidweek To Date Indices			
	Index	Deal Count	Basis	Basis Deal Count	Preliminary Fixed Price	Preliminary Fixed Price Deal Count	Preliminary Basis	Preliminary Basis Deal Count	Preliminary Cumulative Fixed Price	Preliminary Cumulative Fixed Price Deal Count	Preliminary Cumulative Basis	Preliminary Cumulative Basis Deal Count
Market Data Category	GM	GM	GM	GM	GJ	GJ	GJ	GJ	GJ	GJ	GJ	GJ
Bates Published	h,l,c,w	u	h,l,c,w	u	h,l,c,w	u	h,l,c,w	u	h,l,c,w	u	h,l,c,w	u
ICE Enable Gas, Perryville Hub	JAABG03	JDDBG03	JAABG36	JDDBG36	JBBBG03	JEEBG03	JBBBG36	JEEBG36	JCCBG03	JFFBG03	JCCBG36	JFFBG36
ICE Enable Gas, South Pool only	JAABH03	JDDBH03	JAABH36	JDDBH36	JBBBH03	JEEBH03	JBBBH36	JEEBH36	JCCBH03	JFFBH03	JCCBH36	JFFBH36
ICE Enable Gas, West (W1 or W2 as mutually agreed)	JAABI03	JDDBI03	JAABI36	JDDBI36	JBBBI03	JEEBI03	JBBBI36	JEEBI36	JCCBI03	JFFBI03	JCCBI36	JFFBI36
ICE Enable Gas, West Pool	JAABJ03	JDDBJ03	JAABJ36	JDDBJ36	JBBBJ03	JEEBJ03	JBBBJ36	JEEBJ36	JCCBJ03	JFFBJ03	JCCBJ36	JFFBJ36
ICE ENT, STX Map	JAAHT03	JDDHT03	JAAHT36	JDDHT36	JBBHT03	JEEHT03	JBBHT36	JEEHT36	JCCHT03	JFFHT03	JCCHT36	JFFHT36
ICE ETC, Cleburne	JAAHH03	JDDHH03	JAAHH36	JDDHH36	JBBHH03	JEEHH03	JBBHH36	JEEHH36	JCCHH03	JFFHH03	JCCHH36	JFFHH36
ICE ETC, Maypearl	JAA BK03	JDD BK03	JAA BK36	JDD BK36	JBB BK03	JEE BK03	JBB BK36	JEE BK36	JCC BK03	JFF BK03	JCC BK36	JFF BK36
ICE Florida Citygate	JAAF N03	JDD F N03	JAAF N36	JDD F N36	JBB F N03	JEE F N03	JBB F N36	JEE F N36	JCC F N03	JFF F N03	JCC F N36	JFF F N36
ICE GCX West Pool	JAA G N03	JDD G N03	JAA G N36	JDD G N36	JBB G N03	JEE G N03	JBB G N36	JEE G N36	JCC G N03	JFF G N03	JCC G N36	JFF G N36
ICE Gillis Hub	JAA J N03	JDD J N03	JAA J N36	JDD J N36	JBB J N03	JEE J N03	JBB J N36	JEE J N36	JCC J N03	JFF J N03	JCC J N36	JFF J N36
ICE GTN, Kingsgate	JAAF O03	JDD F O03	JAAF O36	JDD F O36	JBB F O03	JEE F O03	JBB F O36	JEE F O36	JCC F O03	JFF F O03	JCC F O36	JFF F O36
ICE GTN, Stanfield	JAAF P03	JDD F P03	JAAF P36	JDD F P36	JBB F P03	JEE F P03	JBB F P36	JEE F P36	JCC F P03	JFF F P03	JCC F P36	JFF F P36
ICE Golden Triangle Storage & Hub	JAA BL03	JDD BL03	JAA BL36	JDD BL36	JBB BL03	JEE BL03	JBB BL36	JEE BL36	JCC BL03	JFF BL03	JCC BL36	JFF BL36
ICE Great Lakes Gas, St. Clair	JAA BM03	JDD BM03	JAA BM36	JDD BM36	JBB BM03	JEE BM03	JBB BM36	JEE BM36	JCC BM03	JFF BM03	JCC BM36	JFF BM36
ICE Guardian, Guardian Hub	JAA BN03	JDD BN03	JAA BN36	JDD BN36	JBB BN03	JEE BN03	JBB BN36	JEE BN36	JCC BN03	JFF BN03	JCC BN36	JFF BN36
ICE Gulf South, Perryville Exchange Point	JAA B O03	JDD B O03	JAA B O36	JDD B O36	JBB B O03	JEE B O03	JBB B O36	JEE B O36	JCC B O03	JFF B O03	JCC B O36	JFF B O36
ICE Gulf South, Pool Area #16	JAA B P03	JDD B P03	JAA B P36	JDD B P36	JBB B P03	JEE B P03	JBB B P36	JEE B P36	JCC B P03	JFF B P03	JCC B P36	JFF B P36
ICE HPL, East Texas Pool	JAA BR03	JDD BR03	JAA BR36	JDD BR36	JBB BR03	JEE BR03	JBB BR36	JEE BR36	JCC BR03	JFF BR03	JCC BR36	JFF BR36
ICE HSC-Kinder Morgan	JAA IN03	JDD IN03	JAA IN36	JDD IN36	JBB IN03	JEE IN03	JBB IN36	JEE IN36	JCC IN03	JFF IN03	JCC IN36	JFF IN36
ICE Iroquois, zone 1 (delivered excl. Waddington)	JAA BS03	JDD BS03	JAA BS36	JDD BS36	JBB BS03	JEE BS03	JBB BS36	JEE BS36	JCC BS03	JFF BS03	JCC BS36	JFF BS36
ICE Iroquois, zone 2 (non-Hunts Point/Eastchester Lateral)	JAA BT03	JDD BT03	JAA BT36	JDD BT36	JBB BT03	JEE BT03	JBB BT36	JEE BT36	JCC BT03	JFF BT03	JCC BT36	JFF BT36
ICE Iroquois, zone 2 Hunts Point/Eastchester Lateral	JAA BU03	JDD BU03	JAA BU36	JDD BU36	JBB BU03	JEE BU03	JBB BU36	JEE BU36	JCC BU03	JFF BU03	JCC BU36	JFF BU36
ICE Jefferson Island Storage and Hub	JAA BV03	JDD BV03	JAA BV36	JDD BV36	JBB BV03	JEE BV03	JBB BV36	JEE BV36	JCC BV03	JFF BV03	JCC BV36	JFF BV36
ICE Katy, ENSTOR Pool (excl. Kinder Morgan Texas)	JAA BW03	JDD BW03	JAA BW36	JDD BW36	JBB BW03	JEE BW03	JBB BW36	JEE BW36	JCC BW03	JFF BW03	JCC BW36	JFF BW36
ICE Katy, Lonestar (Warranted as Intrastate)	JAA BX03	JDD BX03	JAA BX36	JDD BX36	JBB BX03	JEE BX03	JBB BX36	JEE BX36	JCC BX03	JFF BX03	JCC BX36	JFF BX36
ICE Katy, Lonestar Interstate	JAA BY03	JDD BY03	JAA BY36	JDD BY36	JBB BY03	JEE BY03	JBB BY36	JEE BY36	JCC BY03	JFF BY03	JCC BY36	JFF BY36
ICE Katy, Oasis Pipeline	JAA B Z03	JDD B Z03	JAA B Z36	JDD B Z36	JBB B Z03	JEE B Z03	JBB B Z36	JEE B Z36	JCC B Z03	JFF B Z03	JCC B Z36	JFF B Z36
ICE Kern River, on system receipt	JAA CA03	JDD CA03	JAA CA36	JDD CA36	JBB CA03	JEE CA03	JBB CA36	JEE CA36	JCC CA03	JFF CA03	JCC CA36	JFF CA36
ICE Maritimes, Hubline and Beverly Salem	JAA CB03	JDD CB03	JAA CB36	JDD CB36	JBB CB03	JEE CB03	JBB CB36	JEE CB36	JCC CB03	JFF CB03	JCC CB36	JFF CB36
ICE Maritimes and Northeast Pipeline US (buyer's choice dlvd)	JAA CC03	JDD CC03	JAA CC36	JDD CC36	JBB CC03	JEE CC03	JBB CC36	JEE CC36	JCC CC03	JFF CC03	JCC CC36	JFF CC36
ICE MEP, Lamar	JAB F Z03	JDB F Z03	JAB F Z36	JDB F Z36	JBC F Z03	JEB F Z03	JBC F Z36	JEB F Z36	JCC F Z03	JFF F Z03	JCC F Z36	JFF F Z36
ICE Millennium Pipeline - buyers' choice delivered	JAA HA03	JDD HA03	JAA HA36	JDD HA36	JBB HA03	JEE HA03	JBB HA36	JEE HA36	JCC HA03	JFF HA03	JCC HA36	JFF HA36
ICE Moss Bluff Interconnect (buyers' choice dlvd)	JAA CD03	JDD CD03	JAA CD36	JDD CD36	JBB CD03	JEE CD03	JBB CD36	JEE CD36	JCC CD03	JFF CD03	JCC CD36	JFF CD36

### ICE LOCATIONS MONTHLY SYMBOLS

Name of Indices Description of Symbol	Final Monthly Indices				Preliminary Daily Indices During Bidweek				Preliminary Bidweek To Date Indices			
	Index	Deal Count	Basis	Basis Deal Count	Preliminary Fixed Price	Preliminary Fixed Price Deal Count	Preliminary Basis	Preliminary Basis Deal Count	Preliminary Cumulative Fixed Price	Preliminary Cumulative Fixed Price Deal Count	Preliminary Cumulative Basis	Preliminary Cumulative Basis Deal Count
Market Data Category	GM	GM	GM	GM	GJ	GJ	GJ	GJ	GJ	GJ	GJ	GJ
Bates Published	h,l,c,w	u	h,l,c,w	u	h,l,c,w	u	h,l,c,w	u	h,l,c,w	u	h,l,c,w	u
ICE Moss Bluff Storage (In-ground transfers only)	JAACE03	JDDCE03	JAACE36	JDDCE36	JBBCE03	JEECE03	JBBCE36	JEECE36	JCCCE03	JFFCE03	JCCCE36	JFFCE36
ICE MS Hub Storage	JAACF03	JDDCF03	JAACF36	JDDCF36	JBBCF03	JEECF03	JBBCF36	JEECF36	JCCCF03	JFFCF03	JCCCF36	JFFCF36
ICE NGPL, Amarillo Pooling PIN	JAACG03	JDDCG03	JAACG36	JDDCG36	JBBCG03	JEECG03	JBBCG36	JEECG36	JCCCG03	JFFCG03	JCCCG36	JFFCG36
ICE NGPL, Amarillo Storage PIN	JAACH03	JDDCH03	JAACH36	JDDCH36	JBBCH03	JEECH03	JBBCH36	JEECH36	JCCCH03	JFFCH03	JCCCH36	JFFCH36
ICE NGPL, Gulf Coast Mainline Pool	JAACI03	JDDCI03	JAACI36	JDDCI36	JBBCI03	JEECI03	JBBCI36	JEECI36	JCCCI03	JFFCI03	JCCCI36	JFFCI36
ICE NGPL, Iowa-Illinois GC Pool	JAAHN03	JDDHN03	JAAHN36	JDDHN36	JBBHN03	JEEHN03	JBBHN36	JEEHN36	JCCHN03	JFFHN03	JCCHN36	JFFHN36
ICE NGPL, Iowa-Illinois AM Pool	JAAH003	JDDH003	JAAH036	JDDH036	JBBH003	JEEH003	JBBH036	JEEH036	JCCH003	JFFH003	JCCH036	JFFH036
ICE NGPL, Iowa-Illinois GC Storage	JAHP03	JDDHP03	JAHP36	JDDHP36	JBBHP03	JEEHP03	JBBHP36	JEEHP36	JCCHP03	JFFHP03	JCCHP36	JFFHP36
ICE NGPL, Iowa-Illinois AM Storage	JAHQ03	JDDHQ03	JAHQ36	JDDHQ36	JBBHQ03	JEEHQ03	JBBHQ36	JEEHQ36	JCCHQ03	JFFHQ03	JCCHQ36	JFFHQ36
ICE NGPL, Louisiana Pooling PIN	JAACL03	JDDCL03	JAACL36	JDDCL36	JBBCL03	JEECL03	JBBCL36	JEECL36	JCCCL03	JFFCL03	JCCCL36	JFFCL36
ICE NGPL, Louisiana Storage PIN	JAACM03	JDDCM03	JAACM36	JDDCM36	JBBCM03	JEECM03	JBBCM36	JEECM36	JCCCM03	JFFCM03	JCCCM36	JFFCM36
ICE NGPL, Mid-American Citygate	JAACN03	JDDCN03	JAACN36	JDDCN36	JBBCN03	JEECN03	JBBCN36	JEECN36	JCCCN03	JFFCN03	JCCCN36	JFFCN36
ICE NGPL, Mid-Continent Storage PIN	JAAC003	JDDC003	JAAC036	JDDC036	JBBC003	JEEC003	JBBC036	JEEC036	JCC003	JFFC003	JCC036	JFFC036
ICE NGPL, TXOK East Pool	JAACP03	JDDCP03	JAACP36	JDDCP36	JBBCP03	JEECP03	JBBCP36	JEECP36	JCCCP03	JFFCP03	JCCCP36	JFFCP36
ICE NGPL, TXOK West Pool	JAACQ03	JDDCQ03	JAACQ36	JDDCQ36	JBBCQ03	JEECQ03	JBBCQ36	JEECQ36	JCCQ03	JFFCQ03	JCCQ36	JFFCQ36
ICE NorTex, Tolar Hub	JAACR03	JDDCR03	JAACR36	JDDCR36	JBBCR03	JEECR03	JBBCR36	JEECR36	JCCCR03	JFFCR03	JCCCR36	JFFCR36
ICE Northern Border, Harper Transfer Point	JAACS03	JDDCS03	JAACS36	JDDCS36	JBBCS03	JEECS03	JBBCS36	JEECS36	JCCCS03	JFFCS03	JCCCS36	JFFCS36
ICE Northern Border, Nicor Interconnect	JAAC03	JDDCT03	JAAC036	JDDCT36	JBBCT03	JEECT03	JBBCT36	JEECT36	JCCCT03	JFFCT03	JCCCT36	JFFCT36
ICE Northern Border, Vector Interconnect	JAACU03	JDDCU03	JAACU36	JDDCU36	JBBCU03	JEECU03	JBBCU36	JEECU36	JCCCU03	JFFCU03	JCCCU36	JFFCU36
ICE Northern Border, Will County	JAACV03	JDDCV03	JAACV36	JDDCV36	JBBCV03	JEECV03	JBBCV36	JEECV36	JCCCV03	JFFCV03	JCCCV36	JFFCV36
ICE Northern Natural, Mid 13 - 16A Pool	JAACW03	JDDCW03	JAACW36	JDDCW36	JBBCW03	JEECW03	JBBCW36	JEECW36	JCCCW03	JFFCW03	JCCCW36	JFFCW36
ICE Northern Natural, Mid 1-7 Pool	JAACX03	JDDCX03	JAACX36	JDDCX36	JBBCX03	JEECX03	JBBCX36	JEECX36	JCCCX03	JFFCX03	JCCCX36	JFFCX36
ICE Northern Natural, Mid 8 -12 Pool	JAACY03	JDDCY03	JAACY36	JDDCY36	JBBCY03	JEECY03	JBBCY36	JEECY36	JCCCY03	JFFCY03	JCCCY36	JFFCY36
ICE Northwest, Rocky Mountain Pool	JAADR03	JDDFR03	JAADR36	JDDFR36	JBBFR03	JEEFR03	JBBFR36	JEEFR36	JCCFR03	JFFFR03	JCCFR36	JFFFR36
ICE Northwest, Wyoming Pool	JAAFS03	JDDFS03	JAAFS36	JDDFS36	JBBFS03	JEEFS03	JBBFS36	JEEFS36	JCCFS03	JFFFS03	JCCFS36	JFFFS36
ICE Oasis, Waha Pool	JAACZ03	JDDCZ03	JAACZ36	JDDCZ36	JBBCZ03	JEECZ03	JBBCZ36	JEECZ36	JCCZ03	JFFCZ03	JCCZ36	JFFCZ36
ICE ONEOK, Westex Pool	JAADA03	JDDDA03	JAADA36	JDDDA36	JBBDA03	JEEA03	JBBDA36	JEEA36	JCCDA03	JFFDA03	JCCDA36	JFFDA36
ICE Opal Plant Tailgate	JAADB03	JDDDB03	JAADB36	JDDDB36	JBBDB03	JEEA03	JBBDB36	JEEA36	JCCDB03	JFFDB03	JCCDB36	JFFDB36
ICE PG&E, Daggett	JAADC03	JDDDC03	JAADC36	JDDDC36	JBBDC03	JEEA03	JBBDC36	JEEA36	JCCDC03	JFFDC03	JCCDC36	JFFDC36
ICE PG&E, Kern River Station	JAADD03	JDDDD03	JAADD36	JDDDD36	JBBDD03	JEEA03	JBBDD36	JEEA36	JCCDD03	JFFDD03	JCCDD36	JFFDD36
ICE PG&E-Onyx Hill	JAAHB03	JDDHB03	JAAHB36	JDDHB36	JBBHB03	JEEHB03	JBBHB36	JEEHB36	JCCHB03	JFFHB03	JCCHB36	JFFHB36
ICE PG&E, Topock	JAADE03	JDDDE03	JAADE36	JDDDE36	JBBDE03	JEEDE03	JBBDE36	JEEDE36	JCCDE03	JFFDE03	JCCDE36	JFFDE36
ICE Pioneer Plant Tailgate	JAADG03	JDDDG03	JAADG36	JDDDG36	JBBDG03	JEEDG03	JBBDG36	JEEDG36	JCCDG03	JFFDG03	JCCDG36	JFFDG36



**ICE LOCATIONS MONTHLY SYMBOLS**

Name of Indices Description of Symbol	Final Monthly Indices				Preliminary Daily Indices During Bidweek				Preliminary Bidweek To Date Indices			
	Index	Deal Count	Basis	Basis Deal Count	Preliminary Fixed Price	Preliminary Fixed Price Deal Count	Preliminary Basis	Preliminary Basis Deal Count	Preliminary Cumulative Fixed Price	Preliminary Cumulative Fixed Price Deal Count	Preliminary Cumulative Basis	Preliminary Cumulative Basis Deal Count
Market Data Category	GM	GM	GM	GM	GJ	GJ	GJ	GJ	GJ	GJ	GJ	GJ
Bates Published	h,l,c,w	u	h,l,c,w	u	h,l,c,w	u	h,l,c,w	u	h,l,c,w	u	h,l,c,w	u
ICE PNGTS (buyer's choice dlvd)	JAADH03	JDDDH03	JAADH36	JDDDH36	JBBDH03	JEEDH03	JBBDH36	JEEDH36	JCCDH03	JFFDH03	JCCDH36	JFFDH36
ICE Questar, North Pool	JAADI03	JDDDI03	JAADI36	JDDDI36	JBBDI03	JEEDI03	JBBDI36	JEEDI36	JCCDI03	JFFDI03	JCCDI36	JFFDI36
ICE Questar, South Pool	JAADJ03	JDDDJ03	JAADJ36	JDDDJ36	JBBDJ03	JEEDJ03	JBBDJ36	JEEDJ36	JCCDJ03	JFFDJ03	JCCDJ36	JFFDJ36
ICE REX (East), delivered into ANR	JAADK03	JDDDK03	JAADK36	JDDDK36	JBBDK03	JEEDK03	JBBDK36	JEEDK36	JCCDK03	JFFDK03	JCCDK36	JFFDK36
ICE REX (East), delivered into Lebanon Hub	JAAHC03	JDDHC03	JAAHC36	JDDHC36	JBBHC03	JEEHC03	JBBHC36	JEEHC36	JCCCH03	JFFHC03	JCCCH36	JFFHC36
ICE REX (East), delivered into Midwestern Gas	JAADL03	JDDDL03	JAADL36	JDDDL36	JBBDL03	JEEDL03	JBBDL36	JEEDL36	JCCDL03	JFFDL03	JCCDL36	JFFDL36
ICE REX (East), delivered into NGPL	JAADM03	JDDDM03	JAADM36	JDDDM36	JBBDM03	JEEDM03	JBBDM36	JEEDM36	JCCDM03	JFFDM03	JCCDM36	JFFDM36
ICE REX (East), delivered into Panhandle	JAADN03	JDDDN03	JAADN36	JDDDN36	JBBDN03	JEEDN03	JBBDN36	JEEDN36	JCCDN03	JFFDN03	JCCDN36	JFFDN36
ICE REX (East), delivered into Trunkline	JAADO03	JDDDO03	JAADO36	JDDDO36	JBBD003	JEEDO03	JBBD036	JEEDO36	JCCDO03	JFFDO03	JCCDO36	JFFDO36
ICE REX (West), delivered into ANR	JAADP03	JDDDP03	JAADP36	JDDDP36	JBBDP03	JEEDP03	JBBDP36	JEEDP36	JCCDP03	JFFDP03	JCCDP36	JFFDP36
ICE REX (West), delivered into Northern Natural	JAADQ03	JDDDQ03	JAADQ36	JDDDQ36	JBBDQ03	JEEDQ03	JBBDQ36	JEEDQ36	JCCDQ03	JFFDQ03	JCCDQ36	JFFDQ36
ICE REX (West), delivered into Panhandle	JAADR03	JDDDR03	JAADR36	JDDDR36	JBBDR03	JEEDR03	JBBDR36	JEEDR36	JCCDR03	JFFDR03	JCCDR36	JFFDR36
ICE Rover, receipts	JAAHR03	JDDHR03	JAAHR36	JDDHR36	JBBHR03	JEEHR03	JBBHR36	JEEHR36	JCCHR03	JFFHR03	JCCHR36	JFFHR36
ICE Rover, delivered into ANR	JAAHI03	JDDHI03	JAAHI36	JDDHI36	JBBHI03	JEEHI03	JBBHI36	JEEHI36	JCCHI03	JFFHI03	JCCHI36	JFFHI36
ICE Rover, delivered into Panhandle	JAAHJ03	JDDHJ03	JAAHJ36	JDDHJ36	JBBHJ03	JEEHJ03	JBBHJ36	JEEHJ36	JCCHJ03	JFFHJ03	JCCHJ36	JFFHJ36
ICE REX, zone 3 receipts	JAAHS03	JDDHS03	JAAHS36	JDDHS36	JBBHS03	JEEHS03	JBBHS36	JEEHS36	JCCHS03	JFFHS03	JCCHS36	JFFHS36
ICE Ruby, Onyx Hill	JAAAS03	JDDDS03	JAAAS36	JDDDS36	JBBD03	JEED03	JBBD036	JEED036	JCCDS03	JFFDS03	JCCDS36	JFFDS36
ICE Ruby, Receipt Pool	JAAAT03	JDDDT03	JAAAT36	JDDDT36	JBBDT03	JEEDT03	JBBDT36	JEEDT36	JCCDT03	JFFDT03	JCCDT36	JFFDT36
ICE Ryckman Creek Gas Storage	JAAAU03	JDDDU03	JAAAU36	JDDDU36	JBBDU03	JEEDU03	JBBDU36	JEEDU36	JCCDU03	JFFDU03	JCCDU36	JFFDU36
ICE Salt Plains Storage (buyers' choice)	JAAAV03	JDDDV03	JAAAV36	JDDDV36	JBBDV03	JEEDV03	JBBDV36	JEEDV36	JCCDV03	JFFDV03	JCCDV36	JFFDV36
ICE Salt Plains Storage (In-ground transfer only)	JAAAW03	JDDDW03	JAAAW36	JDDDW36	JBBDW03	JEEDW03	JBBDW36	JEEDW36	JCCDW03	JFFDW03	JCCDW36	JFFDW36
ICE Social, Blythe	JAAAX03	JDDDX03	JAAAX36	JDDDX36	JBBDX03	JEEDX03	JBBDX36	JEEDX36	JCCDX03	JFFDX03	JCCDX36	JFFDX36
ICE Social, Ehrenberg (delivered)	JAAAY03	JDDDY03	JAAAY36	JDDDY36	JBBDY03	JEEDY03	JBBDY36	JEEDY36	JCCDY03	JFFDY03	JCCDY36	JFFDY36
ICE Social, Firm Storage only (Citygate)	JAAAZ03	JDDDZ03	JAAAZ36	JDDDZ36	JBBDZ03	JEEDZ03	JBBDZ36	JEEDZ36	JCCDZ03	JFFDZ03	JCCDZ36	JFFDZ36
ICE Social, In-ground transfer only (Citygate)	JAAEA03	JDDEA03	JAAEA36	JDDEA36	JBBEA03	JEEEA03	JBBEA36	JEEEA36	JCCEA03	JFFEA03	JCCEA36	JFFEA36
ICE Social, Interruptible Storage only (Citygate)	JAAEB03	JDDEB03	JAAEB36	JDDEB36	JBBEB03	JEEEB03	JBBEB36	JEEEB36	JCCEB03	JFFEB03	JCCEB36	JFFEB36
ICE Social, Kern River Station	JAAEC03	JDDEC03	JAAEC36	JDDEC36	JBBEC03	JEEEC03	JBBEC36	JEEEC36	JCCEC03	JFFEC03	JCCEC36	JFFEC36
ICE Social, Kramer Junction	JAAED03	JDDED03	JAAED36	JDDED36	JBBED03	JEEED03	JBBED36	JEEED36	JCCED03	JFFED03	JCCED36	JFFED36
ICE Social, Needles	JAAEE03	JDDEE03	JAAEE36	JDDEE36	JBBEE03	JEEEE03	JBBEE36	JEEEE36	JCCEE03	JFFEE03	JCCEE36	JFFEE36
ICE Social, sellers' choice dlvd incl. CA production	JAAEF03	JDDEF03	JAAEF36	JDDEF36	JBBEF03	JEEEF03	JBBEF36	JEEEF36	JCCFE03	JFFEF03	JCCFE36	JFFEF36
ICE Social - Topock	JAAHD03	JDDHD03	JAAHD36	JDDHD36	JBBHD03	JEEHD03	JBBHD36	JEEHD36	JCCHD03	JFFHD03	JCCHD36	JFFHD36
ICE Social, Topock, El Paso	JAAEG03	JDDEG03	JAAEG36	JDDEG36	JBBEG03	JEEEG03	JBBEG36	JEEEG36	JCCGE03	JFFEG03	JCCGE36	JFFEG36
ICE Social, Topock, Transwestern	JAAEH03	JDDEH03	JAAEH36	JDDEH36	JBBEH03	JEEEH03	JBBEH36	JEEEH36	JCCHE03	JFFEH03	JCCHE36	JFFEH36

### ICE LOCATIONS MONTHLY SYMBOLS

Name of Indices Description of Symbol	Final Monthly Indices				Preliminary Daily Indices During Bidweek				Preliminary Bidweek To Date Indices			
	Index	Deal Count	Basis	Basis Deal Count	Preliminary Fixed Price	Preliminary Fixed Price Deal Count	Preliminary Basis	Preliminary Basis Deal Count	Preliminary Cumulative Fixed Price	Preliminary Cumulative Fixed Price Deal Count	Preliminary Cumulative Basis	Preliminary Cumulative Basis Deal Count
Market Data Category	GM	GM	GM	GM	GJ	GJ	GJ	GJ	GJ	GJ	GJ	GJ
Bates Published	h,l,c,w	u	h,l,c,w	u	h,l,c,w	u	h,l,c,w	u	h,l,c,w	u	h,l,c,w	u
ICE Socal, Wheeler Ridge	JAAEI03	JDDEI03	JAAEI36	JDDEI36	JBBEI03	JEEEI03	JBBEI36	JEEEI36	JCC EI03	JFFEI03	JCC EI36	JFFEI36
ICE Sonat - Zone 0	JAAHE03	JDDHE03	JAAHE36	JDDHE36	JBBHE03	JEEHE03	JBBHE36	JEEHE36	JCCHE03	JFFHE03	JCCHE36	JFFHE36
ICE Sonat, Zone 0 South Louisiana Pool	JAAEJ03	JDDEJ03	JAAEJ36	JDDEJ36	JBBEJ03	JEE EJ03	JBBEJ36	JEE EJ36	JCC EJ03	JFFEJ03	JCC EJ36	JFFEJ36
ICE Sonat, Zone 1 North Pool	JAAEK03	JDDEK03	JAAEK36	JDDEK36	JBBEK03	JEE EK03	JBBEK36	JEE EK36	JCC EK03	JFFEK03	JCC EK36	JFFEK36
ICE Southern Pines Hub	JAAEM03	JDDEM03	JAAEM36	JDDEM36	JBBEM03	JEE EM03	JBBEM36	JEE EM36	JCC EM03	JFF EM03	JCC EM36	JFF EM36
ICE Stagecoach Marcellus Hub	JAAEN03	JDDEN03	JAAEN36	JDDEN36	JBBEN03	JEE EN03	JBBEN36	JEE EN36	JCC EN03	JFF EN03	JCC EN36	JFF EN36
ICE Stingray, pool delivery	JAAE003	JDDE003	JAAE036	JDDE036	JBBE003	JEE E003	JBBE036	JEE E036	JCC E003	JFF E003	JCC E036	JFF E036
ICE Tennessee, zone 0 North	JAAEP03	JDDEP03	JAAEP36	JDDEP36	JBBEP03	JEE EP03	JBBEP36	JEE EP36	JCC EP03	JFF EP03	JCC EP36	JFF EP36
ICE Tennessee, zone 0 South	JAAEQ03	JDDEQ03	JAAEQ36	JDDEQ36	JBBEQ03	JEE EQ03	JBBEQ36	JEE EQ36	JCC EQ03	JFF EQ03	JCC EQ36	JFF EQ36
ICE Tennessee, zone 0 South Texas Border Pool	JABFY03	JDBFY03	JABFY36	JDBFY36	JBCFY03	JEBFY03	JBCFY36	JEBFY36	JCC FY03	JFF FY03	JCC FY36	JFF FY36
ICE Tennessee, zone 1 100 Leg Pool	JAAER03	JDDER03	JAAER36	JDDER36	JBBER03	JEE ER03	JBBER36	JEE ER36	JCC ER03	JFF ER03	JCC ER36	JFF ER36
ICE Tennessee, zone 1 800 Leg Pool	JAAEL03	JDDL03	JAAEL36	JDDL036	JBBEL03	JEEL03	JBBEL36	JEEL36	JCC EL03	JFF EL03	JCC EL36	JFF EL36
ICE Tennessee, zone 1, Station 87 Pool	JAAES03	JDDES03	JAAES36	JDDES36	JBBES03	JEE ES03	JBBES36	JEE ES36	JCC ES03	JFF ES03	JCC ES36	JFF ES36
ICE Tennessee, zone 4, station 219 Pool	JAAET03	JDD ET03	JAAET36	JDD ET36	JBBET03	JEE ET03	JBBET36	JEE ET36	JCC ET03	JFF ET03	JCC ET36	JFF ET36
ICE Tennessee, zone 5, 200 Line, dlvd downstream of station 245	JAAEU03	JDDEU03	JAAEU36	JDDEU36	JBBEU03	JEE EU03	JBBEU36	JEE EU36	JCC EU03	JFF EU03	JCC EU36	JFF EU36
ICE Tennessee, zone 6, 300 Line (delivered)	JAAFT03	JDD FT03	JAAFT36	JDD FT36	JBBFT03	JEE FT03	JBBFT36	JEE FT36	JCC FT03	JFF FT03	JCC FT36	JFF FT36
ICE Texas Eastern, M1 24 inch	JAAFU03	JDDFU03	JAAFU36	JDDFU36	JBBFU03	JEE FU03	JBBFU36	JEE FU36	JCC FU03	JFF FU03	JCC FU36	JFF FU36
ICE Texas Eastern, M2 Zone (delivered)	JAAEV03	JDDEV03	JAAEV36	JDDEV36	JBBEV03	JEE EV03	JBBEV36	JEE EV36	JCC EV03	JFF EV03	JCC EV36	JFF EV36
ICE Texas Eastern, Manhattan Lateral (delivered)	JAAEW03	JDDEW03	JAAEW36	JDDEW36	JBBEW03	JEE EW03	JBBEW36	JEE EW36	JCC EW03	JFF EW03	JCC EW36	JFF EW36
ICE Texas Gas, Mainline Pool	JAAEX03	JDDEX03	JAAEX36	JDDEX36	JBBEX03	JEE EX03	JBBEX36	JEE EX36	JCC EX03	JFF EX03	JCC EX36	JFF EX36
ICE Texas Gas, North Louisiana Pool	JAAEY03	JDDEY03	JAAEY36	JDDEY36	JBBEY03	JEE EY03	JBBEY36	JEE EY36	JCC EY03	JFF EY03	JCC EY36	JFF EY36
ICE Transco, River Road	JABGZ03	JDBGZ03	JABGZ36	JDBGZ36	JBCGZ03	JEBGZ03	JBCGZ36	JEBGZ36	JCC GZ03	JFF GZ03	JCC GZ36	JFF GZ36
ICE Transco, zone 5 delivered (north of station 165)	JAAEV03	JDDFV03	JAAEV36	JDDFV36	JBBFV03	JEE FV03	JBBFV36	JEE FV36	JCC FV03	JFF FV03	JCC FV36	JFF FV36
ICE Transco, zone 6 (non-NY north mainline)	JAAEZ03	JDDEZ03	JAAEZ36	JDDEZ36	JBBEZ03	JEE EZ03	JBBEZ36	JEE EZ36	JCC EZ03	JFF EZ03	JCC EZ36	JFF EZ36
ICE Transco, zone 6 station 210 Pool	JAAFA03	JDDFA03	JAAFA36	JDDFA36	JBBFA03	JEE FA03	JBBFA36	JEE FA36	JCC FA03	JFF FA03	JCC FA36	JFF FA36
ICE Transwestern, Central Pool	JAAFB03	JDDFB03	JAAFB36	JDDFB36	JBBFB03	JEE FB03	JBBFB36	JEE FB36	JCC FB03	JFF FB03	JCC FB36	JFF FB36
ICE Transwestern, Panhandle Pool	JAAFC03	JDDFC03	JAAFC36	JDDFC36	JBBFC03	JEE FC03	JBBFC36	JEE FC36	JCC FC03	JFF FC03	JCC FC36	JFF FC36
ICE Transwestern, West Texas Pool	JAAFD03	JDDFD03	JAAFD36	JDDFD36	JBBFD03	JEE FD03	JBBFD36	JEE FD36	JCC FD03	JFF FD03	JCC FD36	JFF FD36
ICE Tres Palacios Hub - Injection	JAAFE03	JDDFE03	JAAFE36	JDDFE36	JBBFE03	JEE FE03	JBBFE36	JEE FE36	JCC FE03	JFF FE03	JCC FE36	JFF FE36
ICE Tres Palacios Hub - Withdrawal	JAAFF03	JDDFF03	JAAFF36	JDDFF36	JBBFF03	JEE FF03	JBBFF36	JEE FF36	JCC FF03	JFF FF03	JCC FF36	JFF FF36
ICE Waha Hub, West Texas (buyer's choice dlvd)	JAAFG03	JDDFG03	JAAFG36	JDDFG36	JBBFG03	JEE FG03	JBBFG36	JEE FG36	JCC FG03	JFF FG03	JCC FG36	JFF FG36
ICE White River Hub (buyer's choice dlvd)	JAAFW03	JDDFW03	JAAFW36	JDDFW36	JBBFW03	JEE FW03	JBBFW36	JEE FW36	JCC FW03	JFF FW03	JCC FW36	JFF FW36
ICE WIC, Pool	JAAFH03	JDDFH03	JAAFH36	JDDFH36	JBBFH03	JEE FH03	JBBFH36	JEE FH36	JCC FH03	JFF FH03	JCC FH36	JFF FH36

Bates are defined as: high = h; Low = l; Index = u or Final Indices and c for Preliminary Indices; Volume = w

**DAILY CGPR SYMBOLS (CAD/GJ)**

Name of Indices	Final Daily Indices By Trade Date			Final Daily Indices By Flow Date			
	Description of Symbol	Index (CAD/GJ) and Abs Range	Deal Count	Index (USD/Mmbtu)	Index (CAD/GJ) and Abs Range	Deal Count	Index (USD/Mmbtu)
Market Data Category	GD	GD	GD	GD	GD	GD	GD
Bates Published	h,l,c,w	u	c	h,l,c,w	u	c	
ICE NGX AB-NIT Yesterday Index	ENABA55	ENABA53	ENABA56	ENABA54	ENABA52	ENABA57	
ICE NGX AB-NIT Same Day Index	ENABN40	ENABN38	ENABN42	ENABN39	ENABN37	ENABN41	
ICE NGX AB-NIT Same Day Index Weekend	ENABN32	ENABN34	ENABN36	ENABN31	ENABN33	ENABN35	
ICE NGX AB-NIT Same Day Index (1) Daily	ENADA03	ENADA01	ENADA05	ENADA04	ENADA02	ENADA06	
ICE NGX AB-NIT Same Day Index (1A) Daily	ENADA09	ENADA07	ENADA11	ENADA10	ENADA08	ENADA12	
ICE NGX AB-NIT Same Day Index (2) Daily	ENADA15	ENADA13	ENADA17	ENADA16	ENADA14	ENADA18	
ICE NGX AB-NIT Same Day Index (2A) Daily	ENADA21	ENADA19	ENADA23	ENADA22	ENADA20	ENADA24	
ICE NGX AB-NIT Same Day Index (3) Daily	ENADA27	ENADA25	ENADA29	ENADA28	ENADA26	ENADA30	
ICE NGX AB-NIT Same Day Index (3A) Daily	ENADA33	ENADA31	ENADA35	ENADA34	ENADA32	ENADA36	
ICE NGX AB-NIT Same Day Index (4) Daily	ENADA39	ENADA37	ENADA41	ENADA40	ENADA38	ENADA42	
ICE NGX AB-NIT Same Day Index (4A) Daily	ENADA45	ENADA43	ENADA47	ENADA46	ENADA44	ENADA48	
ICE NGX AB-NIT Same Day Index (5) Daily	ENADA51	ENADA49	ENADA53	ENADA52	ENADA50	ENADA54	
ICE NGX AB-NIT Same Day Index (5A) Daily	ENADA57	ENADA55	ENADA59	ENADA58	ENADA56	ENADA60	
ICE NGX AB-NIT Same Day Index (1) MTD	ENABN02	ENABN04	ENABN06	ENABN01	ENABN03	ENABN05	
ICE NGX AB-NIT Same Day Index (1A) MTD	ENABA48	ENABA49	ENABA61	ENABA51	ENABA50	ENABA60	
ICE NGX AB-NIT Same Day Index (2) MTD	ENABN08	ENABN10	ENABN12	ENABN07	ENABN09	ENABN11	
ICE NGX AB-NIT Same Day Index (2A) MTD	ENABA08	ENABA10	ENABA12	ENABA09	ENABA11	ENABA13	
ICE NGX AB-NIT Same Day Index (3) MTD	ENABN14	ENABN16	ENABN18	ENABN13	ENABN15	ENABN17	
ICE NGX AB-NIT Same Day Index (3A) MTD	ENABA16	ENABA17	ENABA59	ENABA19	ENABA18	ENABA58	
ICE NGX AB-NIT Same Day Index (4) MTD	ENABN20	ENABN22	ENABN24	ENABN19	ENABN21	ENABN23	
ICE NGX AB-NIT Same Day Index (4A) MTD	ENABA20	ENABA22	ENABA24	ENABA21	ENABA23	ENABA25	
ICE NGX AB-NIT Same Day Index (5) MTD	ENABN26	ENABN28	ENABN30	ENABN25	ENABN27	ENABN29	
ICE NGX AB-NIT Same Day Index (5A) MTD	ENABA32	ENABA34	ENABA36	ENABA33	ENABA35	ENABA37	
ICE NGX AB-NIT Day Ahead Index	ENABA04	ENABA05	ENABA63	ENABA07	ENABA06	ENABA62	
ICE NGX AB-NIT Month Ahead Index (7A) Daily	ENABA40	ENABA41	ENABA42				
ICE NGX AB-NIT Month Ahead Index (7A) MTD	ENABA74	ENABA78	ENABA76				
ICE NGX APC-ATP 5A Day Ahead Index	ENACA00	ENACA02	ENACA04	ENACA01	ENACA03	ENACA05	
ICE NGX APC-ATP Yesterday Index	ENACA37	ENACA39	ENACA41	ENACA36	ENACA38	ENACA40	
ICE NGX APC-ATP Same Day Index	ENACA15	ENACA13	ENACA17	ENACA14	ENACA12	ENACA16	
ICE NGX APC-ATP Day Ahead Index	ENACA09	ENACA07	ENACA11	ENACA08	ENACA06	ENACA10	
ICE NGX Spectra Station #2 Same Day Index	ENWCA12	ENWCA13	ENWCA48	ENWCA15	ENWCA14	ENWCA49	
ICE NGX Spectra Station #2 Day Ahead Index	ENWCA08	ENWCA09	ENWCA17	ENWCA11	ENWCA10	ENWCA16	
ICE NGX TCPL-Empress Day Ahead Index	ENACA21	ENACA19	ENACA23	ENACA20	ENACA18	ENACA22	
ICE NGX TCPL-Suffield 2 Day Ahead Index	ENACA55	ENACA57	ENACA59	ENACA54	ENACA56	ENACA58	
ICE NGX TransGas Energy Pool Same Day Index	ENTGE00	ENTGE01	ENTGE02	ENTGE03	ENTGE04	ENTGE05	
ICE NGX TransGas Energy Pool Day Ahead Index	ENTGE09	ENTGE07	ENTGE11	ENTGE08	ENTGE06	ENTGE10	
ICE NGX AB-NIT - TCPL-Empress Transport Day Ahead Index	ENABA00	ENABA01	ENABA64	ENABA03	ENABA02	ENABA65	

Bates are defined as: High = h; Low = l; Index = c; Deal Count = u; Volume = w

**DAILY CGPR SYMBOLS (USD/MMBTU)**

Name of Indices	Final Daily Indices By Trade Date			Final Daily Indices By Flow Date		
	Index (USD/MMBtu) and Abs Range	Deal Count	Index (CAD/GJ)	Index (USD/MMBtu) and Abs Range	Deal Count	Index (CAD/GJ)
Description of Symbol	GD	GD	GD	GD	GD	GD
Market Data Category	h,l,c,w	u	c	h,l,c,w	u	c
Bates Published						
ICE NGX Spectra Huntingdon Day Ahead Index	ENACA33	ENACA31	ENACA35	ENACA32	ENACA30	ENACA34
ICE NGX TCPL-Chippawa Day Ahead Index	ENWCA21	ENWCA19	ENWCA23	ENWCA20	ENWCA18	ENWCA22
ICE NGX TCPL-East Hereford Day Ahead Index	ENDHA23	ENDHA19	ENDHA21	ENDHA22	ENDHA18	ENDHA20
ICE NGX TCPL-Emerson 1 Day Ahead Index	ENWCA27	ENWCA25	ENWCA29	ENWCA26	ENWCA24	ENWCA28
ICE NGX TCPL-Emerson 2 Day Ahead Index	ENWCA33	ENWCA31	ENWCA35	ENWCA32	ENWCA30	ENWCA34
ICE NGX TCPL-Enbridge CDA Day Ahead Index	ENACA27	ENACA25	ENACA29	ENACA26	ENACA24	ENACA28
ICE NGX TCPL-Enbridge EDA Day Ahead Index	ENACA47	ENACA43	ENACA45	ENACA46	ENACA42	ENACA44
ICE NGX TCPL-Energir EDA Day Ahead Index	ENACA53	ENACA49	ENACA51	ENACA52	ENACA48	ENACA50
ICE NGX TCPL-Iroquois Day Ahead Index	ENWCA39	ENWCA37	ENWCA41	ENWCA38	ENWCA36	ENWCA40
ICE NGX TCPL-Niagara Day Ahead Index	ENNIA17	ENNIA15	ENNIA19	ENNIA16	ENNIA14	ENNIA18
ICE NGX TCPL-St. Clair Day Ahead Index	ENACA65	ENACA61	ENACA63	ENACA64	ENACA60	ENACA62
ICE NGX Union Dawn Same Day Index	ENDHA17	ENDHA13	ENDHA15	ENDHA16	ENDHA12	ENDHA14
ICE NGX Union Dawn Day Ahead Index	ENDHA06	ENDHA04	ENDHA10	ENDHA09	ENDHA05	ENDHA11
ICE NGX Union-Parkway Day Ahead Index	ENPKA02	ENPKA03	ENPKA06	ENPKA05	ENPKA04	ENPKA07
ICE NGX TCPL-St.Clair-Union-Dawn Transport Day Ahead Index	ENSCA00	ENSCA01	ENSCA06	ENSCA03	ENSCA02	ENSCA07
ICE NGX Union-Dawn-Enbridge CDA Transport Day Ahead Index	ENEBA02	ENEBA04	ENEBA07	ENEBA03	ENEBA05	ENEBA06
ICE NGX Union-Dawn-Parkway Transport Day Ahead Index	ENPKA11	ENPKA09	ENPKA13	ENPKA10	ENPKA08	ENPKA12
ICE NGX Union-Dawn-TCPL Chippawa Transport Day Ahead Index	ENWCA45	ENWCA43	ENWCA47	ENWCA44	ENWCA42	ENWCA46
ICE NGX Union-Dawn-TCPL Iroquois Transport Day Ahead Index	ENIRA08	ENIRA02	ENIRA04	ENIRA09	ENIRA03	ENIRA07

Bates are defined as: High = h; Low = l; Index = c; Deal Count = u; Volume = w

**MONTHLY CGPR SYMBOLS (CAD/GJ)**

Name of Indices Description of Symbol Market Data Category Bates Published	Final Monthly Indices		
	Index (CAD/GJ) and Abs Range	Deal Count	Index (USD/Mmbtu)
	GM	GM	GM
	h,l,c,w	u	c
ICE NGX AB-NIT Month Ahead (7A)	ENABA79	ENABA80	ENABA81
ICE NGX AB-NIT Month Ahead Bidweek (7A1)	ENABA44	ENABA45	ENABA46
ICE NGX Alberta Spot Price - Empress (7)	ENABA82	ENABA83	ENABA84
ICE NGX AB-NIT - TCPL-Empress Month Ahead Spread (7AA)	ENAEA00	ENAEA01	ENAEA02
ICE NGX AB-NIT Same Day Index (1)	ENCAA00	ENCAA01	ENCAA02
ICE NGX AB-NIT Same Day Index (1A)	ENCAA03	ENCAA04	ENCAA05
ICE NGX AB-NIT Same Day Index (2)	ENCAA06	ENCAA07	ENCAA08
ICE NGX AB-NIT Same Day Index (2A)	ENCAA09	ENCAA10	ENCAA11
ICE NGX AB-NIT Same Day Index (3)	ENCAA12	ENCAA13	ENCAA14
ICE NGX AB-NIT Same Day Index (3A)	ENCAA15	ENCAA16	ENCAA17
ICE NGX AB-NIT Same Day Index (4)	ENCAA18	ENCAA19	ENCAA20
ICE NGX AB-NIT Same Day Index (4A)	ENCAA21	ENCAA22	ENCAA23
ICE NGX AB-NIT Same Day Index (5)	ENCAA24	ENCAA25	ENCAA26
ICE NGX AB-NIT Same Day Index (5A)	ENCAA27	ENCAA28	ENCAA29
ICE NGX APC-ATP Month Ahead	ENALA01	ENATN24	ENBCA02
ICE NGX Spectra - Stn 2 Month Ahead (7B)	ENALA03	ENATN25	ENBCA04
ICE NGX Spectra - Stn 2 Month Ahead Bidweek (7C)	ENATN09	ENATC42	ENBCA13
ICE NGX TCPL-Suffield 2 Month Ahead	ENATN03	ENATC36	ENBCA29
ICE NGX TransGas Energy Pool Month Ahead	ENATN04	ENATC37	ENBCA24
ICE NGX Alberta Market Price	ENNGA00		ENNGA01
NYMEX Expiration Price CAD	ENALA00		
NYMEX Expiration Reuters Noon CAD Exchange Rate	ENEDM00		
Saskatchewan Provincial Gas Price	ENCGP00		
Alberta Natural Gas Reference Price	ENCGP01		
Alberta Natural Gas AB-NIT Purchase Price	ENCGP02		
Alberta Natural Gas Intra-Alberta Transport	ENCGP03		
Alberta Natural Gas Price Before Pipeline Factor	ENCGP04		
Alberta Natural Gas Pipeline Fuel/Loss Factor	ENCGP05		

Bates are defined as: High = h; Low = l; Index = c; Deal Count = u; Volume = w

**MONTHLY CGPR SYMBOLS (USD/MMBTU)**

Name of Indices	Final Monthly Indices		
	Index (USD/MMBtu) and Abs Range	Deal Count	Index
Description of Symbol	GM	GM	GM
Market Data Category	GM	GM	GM
Bates Published	h,l,c,w	u	c
ICE NGX Spectra-Huntingdon Month Ahead	ENALA02	ENATC47	ENBCA03
ICE NGX TCPL-Chippawa Month Ahead	ENALA04	ENATN26	ENBCA05
ICE NGX TCPL-East Hereford Month Ahead	ENALA05	ENATN27	ENBCA06
ICE NGX TCPL-Emerson 1 Month Ahead	ENALA06	ENATN28	ENBCA07
ICE NGX TCPL-Emerson 2 Month Ahead	ENALA07	ENATN29	ENBCA08
ICE NGX TCPL-Enbridge CDA Month Ahead	ENALA08	ENATN30	ENBCA09
ICE NGX TCPL-Enbridge EDA Month Ahead	ENALA09	ENATC31	ENBCA26
ICE NGX TCPL-Energir EDA Month Ahead	ENALA10	ENATC32	ENBCA27
ICE NGX TCPL-Iroquois Month Ahead	ENATN00	ENATC33	ENBCA22
ICE NGX TCPL-Niagara Month Ahead	ENATN01	ENATC34	ENBCA23
ICE NGX TCPL-St. Clair Month Ahead	ENATN02	ENATC35	ENBCA28
ICE NGX Union-Dawn Month Ahead	ENATN05	ENATC38	ENBCA25
ICE NGX Union-Dawn Month Ahead Bidweek	ENATN22	ENBCA00	ENBRA13
ICE NGX Union-Parkway Month Ahead	ENATN06	ENATC39	ENBCA10
NYMEX Expiration Reuters Noon USD Exchange Rate	ENEDM01		

Bates are defined as: High = h; Low = l; Index = c; Deal Count = u; Volume = w

## CGPR Daily & Monthly Indices Methodology

All CGPR daily and monthly indices are volume-weighted or arithmetic average calculations of transactions on the ICE NGX Exchange. Only transactions done on ICE NGX are included in their formation.

### Daily Prices and Calculations:

For more information on the calculation of AB-NIT Same Day 1A-5A, please see the ICE NGX Methodology guide at [https://www.theice.com/publicdocs/NGX\\_Index\\_Methodology.pdf](https://www.theice.com/publicdocs/NGX_Index_Methodology.pdf)

### Monthly Prices and Calculations:

First of the Month Canadian and US Refinitiv WM/Reuters 12 Noon EST FX Benchmark exchange rates are published by Thomas Reuters on the first business day of the month.

The NYMEX Prompt Month expiration is converted to CAD by multiplying the final NYMEX expiration price by the prevailing CAD exchange rate on the day of expiration, then dividing by the constant 1.055056.

Alberta Natural Gas Reference Price is publicly available by the Alberta Department of Energy with a two-month lag. Most recent values are calculated by subtracting the Intra-Alberta Transport from the NIT Purchase Price, then multiplying by the Pipeline Fuel/Loss Factor.

ICE NGX Alberta Market Price is publicly available on ICE NGX and is a volume-weighted average price for all physically delivered natural gas in the month at the Alberta AB-NIT market center for all traded products.

ICE NGX Alberta Spot Price – Empress (7) is calculated by adding the ICE NGX AB-NIT Month Ahead 7A end of month value to ICE NGX AB-NIT-TCPL Empress Month Ahead Spread

(7AA) value. ICE NGX AB-NIT Month Ahead (7A) is a volume-weighted calculation of all ICE NGX AB-NIT Month Ahead transactions done on ICE NGX for delivery the following month. ICE NGX AB-NIT Month Ahead Bidweek (7A1) is volume-weighted calculation of all ICE NGX AB-NIT Month Ahead transactions done on ICE NGX for delivery the following month during ICE NGX bidweek, defined as the last five business days of the month. ICE NGX AB-NIT-TCPL Empress Month Ahead Spread (7AA) is a volume-weighted calculation of all ICE NGX AB-NIT-TCPL/Empress fixed price spread deals done on ICE NGX for delivery the following month.

ICE NGX Spectra – Stn 2 Month Ahead (7B) is a volume-weighted calculation of all ICE NGX Spectra – Stn 2 transactions done on ICE NGX for delivery the following month. ICE NGX AB-NIT Month Ahead Bidweek (7C) is volume-weighted calculation of all ICE NGX Spectra – Stn 2 transactions done on ICE NGX for delivery the following month during ICE NGX bidweek, defined as the last five business days of the month.

Saskatchewan Provincial Gas Price is publicly available royalty calculation published by the Government of Saskatchewan with a two-month lag. The value is calculated to cubic meters by multiplying the most recent royalty price and the constant 37.78

All other Month Ahead values are volume-weighted calculations based on their respective ICE NGX contracts traded on ICE NGX for delivery next month.

## Gas Indices Americas (GIA) Daily Indices Methodology

The GIA prices are calculated using twenty trading locations across four regions in the US and Canada. Platts publishes a daily index for North America as well as the Northeast, South, Midwest, and West regions. Prices are reported in US dollars per million Btu.

Platts collects interstate pipeline natural gas data from the Intraday 3 pipeline nomination cycle to determine locations, location weightings, and region weightings. Volumes are compiled by location according to location definitions.

### A. Determine GIA Locations

- Rank Platts locations in each of the four regions by average daily nomination volume in the prior winter or summer season, where winter represents November – March and summer represents April – October.
- The top 5 locations in each region with the highest volumes are selected.
- To ensure adequate trading liquidity, each location must have an average daily deal count of at least 20 trades over the prior winter or summer season. If a location does not meet this threshold, it is excluded and the location with the next highest volume is selected.

For example, the locations for Nov 2018 – Mar 2019 represent the 5 locations in each region with the highest average daily nomination volumes that also meet the liquidity threshold during Nov 2017 – Mar 2018. The locations remain constant for the entirety of the season. Locations are reviewed twice per year at the end of the winter and summer seasons. Platts publishes the twenty locations in April for the following winter and in November for the following summer. Given the seasonal lag between traded volumes for location selection and index calculation, Platts reserves the right to exclude locations that meet these criteria should diminished trading liquidity occur or include locations that meet these criteria after the prior season.

### B. Calculate GIA Region Prices

Region price = (Location1 price x location1 weighting) + (Location2 price x location2 weighting) + (Location3 price x location3 weighting) + (Location4 price x location4 weighting) +

(Location5 price x location5 weighting)

1. Location price = Platts final daily index price, published around 5 pm Central Time according to the Platts daily gas calendar.

Platts price submitter trades and non-Platts price submitter ICE Exchange trades are used in these indices. Platts price submitter ICE trades are removed from the ICE trade data to eliminate double counting. Both the buy and sell side of ICE trades will be counted in the indices. For trades not done on ICE, only the buy or sell side reported by the price submitter will be counted in the indices. The trades are screened for outliers using existing mechanisms as well as verifying trade data that occurs outside of the transparent trading range observed on the ICE exchange. At locations with robust trading activity, the index is the volume weighted average of all trades. However, the volume weighted average price does not always represent the average of the trading activity. Therefore, in less liquid or highly volatile markets, Platts may look at other means of determining an index price, which could include but is not limited to, the median and average of the median and volume weighted average. Platts will attempt to assess prices for locations with no trades where viable. Platts will examine other market information to determine whether it can publish an assessment. Assessments are based on other market information, including but not limited to, an analysis of historical daily prices, locational spread relationships to values at related liquid pricing points, and ICE physical bids and offers. Should Platts not assess a price for a location, the location weighting is evenly distributed over the other locations in the region in computing the region price.

2. Location weighting = the weight of each location's volume based on the 5 locations in each region over the prior winter or summer season, where for each location:

Location1 weighting = Location1 volume / (Location1 volume + location2 volume + location3 volume + location4 volume + location5 volume)

No location may have a location weighting greater than twice the size of the average of the five points, i.e. 40%. Should a location need to be capped, any allocation above 40% is divided equally over the other locations in that region.

For example, the location weightings for Nov 2018 – Mar 2019 are determined by dividing the location volume for Nov 2017 – March 2018 by the total volume for all 5 locations in the region over the same period. The location weightings remain constant for the entirety of the season. Location weightings are reviewed twice per year at the end of the winter and summer seasons. Platts publishes the location weightings in April for the following winter and in November for the following summer.

### C. Calculate GIA North America Price

GIA North America price = (Region1 price x Region1 weighting) + (Region2 price x Region2 weighting) + (Region3 price x Region3 weighting) + (Region4 price x Region4 weighting)

1. Region price = Prices calculated per B. above
2. Region weighting = the weight of each region's volume based

### GIA SYMBOLS

Name of Indices	GIA Final Daily Indices By Trade Date	GIA Final Daily Indices By Flow Date
Description of Symbol	Index	Index
Market Data Category	GH	GH
Bates Published	c	c
GIA Northeast	IGKAA00	IGKAA21
GIA South	IGLAA00	IGLAA21
GIA Midwest	IGMAA00k	IGMAA21
GIA West	IGNAA00	IGNAA21
GIA North America	IGOAA00	IGOAA21

Bates are defined as: Index = c

on the 5 locations in each region over the prior winter or summer season, where for each region:

Region1 weighting = Region1 volume / (Region1 volume + Region2 volume + Region3 volume + Region4 volume). No region may have a weighting greater than twice the size of the average of the four regions, i.e. 50%. Should a region need to be capped, any allocation above 50% is divided equally over the other regions.

For example, the region weightings for Nov 2018 – Mar 2019 are determined by dividing the region volume for Nov 2017 – March 2018 by the total volume for all 4 regions over the same period. The region weightings remain constant for the entirety of the season. Region weightings are reviewed twice per year at the end of the winter and summer seasons. Platts publishes the region weightings in April for the following winter and in November for the following summer.



## REVISION HISTORY

**May 2020:** Platts removed references to Shale Value Chain following discontinuation on May 25. Platts also added more information around CGPR Daily & Monthly indices, including data used and calculations.

**May 2020:** Platts updated the methodology guide to merge the Gas Indices Americas (GIA) methodology into the US and Canada methodology guide. Platts also included methodology pertaining to Canadian Enerdata Ltd. acquisition and publishing of daily & monthly Canadian ICE NGX contracts.

**April 2020:** Platts launched ICE Transco, River Road and ICE MEP, Lamar daily and monthly indices.

**March 2020:** Amended prior Revision History for November 2019 to show complete name of Platts Trade Vision

**February 2020:** Platts has changed the preliminary monthly indices to only include ICE transactional data. Bilateral transactions will still be included in final monthly indices.

**December 2019:** Platts has changed the mention of TransCanada to TC Energy to reflect recent name change. Platts has also changed TransCanada Mainline name to Canadian Mainline to reflect recent name change.

**November 2019:** Added Platts Trade Vision as a method to receive trade submissions used in the formation of its North American natural gas indices. Platts launched ICE Tennessee, zone 0 South Texas Border Pool.

**October 2019:** Added language about the use of market information when assessing prices and key submitter dependency.

**September 2019:** Platts launched Pine Prairie Hub, Rover delivered, and Northwest Rocky Mountain Pool in the daily

market and discontinued the ICE Pine Prairie Hub location. In the monthly market, Platts launched Pine Prairie Hub, Rover delivered, and Kern River delivered. Platts discontinued ICE Kern River on system delivery and ICE Pine Prairie Hub in the monthly market. Platts launched the following ICE locations for the daily and monthly market : ICE Gillis Hub, ICE GCX West Pool, ICE HSC-Kinder Morgan, ICE Tennessee Zone 1, 800 Leg Pool.

**August 2019:** Platts completed an annual review of the North American Natural Gas methodology and specifications guide. Platts reviewed all content and made minor edits to language.

**July 2019:** Platts launched ICE Columbia Gas, A08 Pool daily and monthly index in June 2019. Platts also launched natural gas OTC indices for Canadian Locations. Platts adds language to Part V of Methodology & Specification guide further explaining the correction process in the daily and monthly market, additional detail on the timeframe for correcting, and interaction with price submitters.

**May 2019:** Platts launched ICE El Paso, Anadarko monthly index. Platts revised several symbols in the daily and monthly markets to correct errors. Tennessee Zone 1 daily absolute range flow date symbol was revised to IGBHI22, while the Preliminary Cumulative Basis Deal Count symbols for all locations in the Rockies/Northwest and Southwest regions were corrected.

**April 2019:** Platts added language to Part I, spelling out Canadian locations outside of FERC jurisdiction, as well as the inclusion of basis deals in the Florida city-gates daily index. In addition, Part VII was revised to include an asterisk identifying Canadian locations, and corresponding footnote, in addition to further details on basis deals in Florida city-gates. Platts launched ICE El Paso, Anadarko daily index.

**January 2019:** Platts added daily and monthly indices for the following Platts Location, El Paso, West Texas. Platts added daily and monthly indices for the following ICE location, ICE Banquete Hub. Due to a listing issue Platts added daily indices and symbols

for the following ICE locations, ICE NGPL, Amarillo Pooling PIN and ICE NGPL, Amarillo Storage PIN and removed ICE NGPL, Iowa-Illinois Pooling PIN and ICE NGPL, Iowa-Illinois Storage PIN.

**November 2018:** Platts added daily and monthly indices for the following Platts Locations, Tennessee, zone 6, delivered North, and Tennessee, zone 6, delivered South. Platts added daily and monthly indices for the following ICE locations, ICE Iroquois, zone 1 (delivered excl. Waddington) and ICE Tennessee, zone 5, 200 Line, dlvd downstream of station 245, as well as monthly basis symbols for Platts locations in Rockies and Southwest. Platts discontinued daily and monthly indices for the following ICE locations, ICE TGP-Z6 200L, North and ICE TGP-Z6, 200L South.

**October 2018:** Platts added daily indices for the following Platts locations, Tennessee, zone 5 (200 leg) and Iroquois, zone 1. Platts discontinued daily and monthly indices for the following ICE locations, ICE Iroquois, zone 1 (delivered excl. Waddington and ICE Tennessee, zone 5, 200 Line, delivered downstream of station 245. Platts added daily and monthly indices for the following ICE locations, ICE Tennessee, Zone 6, 200L, North and ICE Tennessee, Zone 6 200L, South.

**September 2018:** Platts discontinued daily and monthly indices for the following Platts locations Rex Clarington, Ohio and Tennessee Zone-4 Ohio . Platts also removed daily and monthly indices for the following ICE locations, ICE NGPL Iowa-Illinois Pooling PIN and ICE NGPL Iowa-Illinois Storage PIN, and added daily and monthly indices for the following ICE locations, ICE NGPL, Iowa-Illinois GC Pool, ICE NGPL, Iowa-Illinois AM Pool, ICE NGPL, Iowa-Illinois GC Storage, ICE NGPL, Iowa-Illinois AM Storage, ICE Rover, receipts, ICE REX, zone 3 receipts, ICE ENT, STX Map, ICE Agua Blanca Pool

**August 2018:** Platts added Shale Value Chain methodology to the North American Natural Gas methodology guide and retired the separate Shale Value Chain methodology guide.

**June 2018:** Platts completed an annual update to the North

American Natural Gas methodology guide. In this update, Platts reviewed all content and made minor edits throughout.

**June 2018:** Platts added daily and monthly indices for ICE Dominion Energy, Cove Point, on system delivery; ICE Rover, delivered into ANR; ICE Rover, delivered into Panhandle; and ICE Bennington, Oklahoma, (buyer's choice) locations, and discontinued daily and monthly indices for the following ICE locations, ICE Transco Cove Point Pleasant Valley Interconnect, and ICE Bennington Oklahoma

**June 2018:** Added Tennessee, Zone 1 as a daily market index in Louisiana/Southeast.

**May 2018:** Clarified methodology for NGPL, Texok zone.

**March 2018:** Clarified methodology for Agua Dulce, Tennessee, zone 0, and Waha locations.

**December 2017:** On December 1, Platts changed final monthly indices for Platts locations methodology to add non-Platts price reporter ICE trades. Corrected symbol for Platts location Rex, zone 3 delivered final daily indices by flow date absolute range symbol.

**November 2017:** Platts discontinued regional average preliminary fixed price monthly symbols on November 17. Only regional average final monthly index prices will be published.

**October 2017:** On trade date October 31, 2017, changed final daily indices for Platts locations methodology to add non-Platts price reporter ICE trades and editorial judgment to assess daily prices. Added daily and monthly indices for ICE Algonquin, Millennium-Ramapo receipts, ICE Algonquin, TGP-Mahwah receipts, and ICE ETC, Cleburne locations.

**September 2017:** Launched preliminary monthly indices for Platts and ICE locations on September 25, 2017 and final monthly indices for ICE locations on October 1, 2017.

**August 2017:** Platts amended text throughout to reflect implementation of Platts ICE natural gas agreement. Launched preliminary daily indices for Platts locations and final daily indices for ICE locations on August 31, 2017.

**June 2017:** Platts completed an annual update to the North American Natural Gas methodology guide. In this update, Platts reviewed all content and made minor edits throughout.

**January 2017:** Added ICE physical bids and offers to market information used to assess monthly indices

**August 2016:** Platts completed an annual update to the North American Natural Gas methodology guide in August 2016. In this update, Platts reviewed all content. In this edition, Platts made minor edits throughout.

**June 2016:** Added Transco, zone 5 delivered North (daily market only) and Transco, zone 5 delivered South (daily and monthly markets) sublistings. Discontinued use of backup Yahoo mailboxes and replaced them with gasprice\_daily2@spglobal.com and gasprice\_monthly2@spglobal.com.

**April 2016:** Extended reportable transaction time cutoff to 1 pm Central from 11:30 am, effective April 1, 2016. Added detail on calculations of regional and national average prices.

**January 2016:** Added regional average symbols for the 8 regions.

**December 2015:** Reorganized locations by 8 separate regions.

**October 2015:** Added Chicago-Nicor, Chicago-NIPSCO, Chicago-Peoples, and REX, Zone 3 delivered to daily and monthly markets.

**August 2015:** Added Tennessee, Zone 4-313 Pool and Transco, Zone 6 non-NY South locations to daily and monthly markets. Also edited Part I, Part II, and Part III at beginning of document.

**June 2015:** Section on common and absolute ranges changed to show ranges are carried out to a third decimal place and rounded to the nearest half-cent.

**April 2015:** Clarification of descriptions at Algonquin, city-gates; Dominion, North Point; Dominion, South Point; Texas Eastern, M-3; and Chicago city-gates.

**February 2015:** Clarification of Corrections and Security and Confidentiality sections.

**January 2015:** Added "monthly market" to Transco Zone 5 delivered point description.

**December 2014:** Added Transco Zone 5 delivered to monthly market. Added Transco Zone 6 non-NY North and Columbia Gas, Appalachia (Non-IPP) to the daily and monthly markets. The monthly market additions are effective December 2014 trading for January 2015 delivery. The daily market additions are effective trade date January 2, 2015 for delivery on January 3 – 5.

**November 2014:** Clarified description for Columbia Gas, Appalachia (daily and monthly market), confirming it reflects deliveries in Columbia Gas Transmission's Interruptible Paper Pool (IPP pool) from any source on Columbia Gas. Deliveries in the IPP pool, which is also known as the "TCO Pool" can originate from any source delivered into Columbia Gas' system.

**October 2014:** Updates description for Columbia Gas, Appalachia (daily market only) confirming it reflects deliveries into Columbia Gas Transmission's Interruptible Paper Pool (IPP pool) from any source on Columbia Gas. Deliveries into the IPP pool are transported using Columbia Gas Transmission's IPP Rate schedule and can originate from any source delivered into Columbia Gas' system, including unrestricted aggregation points under the pipeline's AS rate schedule.

**May 2014:** Discontinued Questar Gas Co. pricing location for

monthly bidweek market only.

**April 2014:** Correction of description for Tennessee, La., 500 leg.

**April 2014:** Modification of description for Tennessee, zone 6 delivered, confining it to the deliveries off the 200 leg. Addition of Tennessee, zone 6 (300 leg) pricing location to the daily market.

**January 2014:** Platts revamped this Methodology and Specifications Guide effective January 2014. This revamp was completed to enhance the clarity and usefulness of the guide and to introduce greater consistency of layout and structure across Platts published methodology guides. Methodologies for market coverage were not changed in this version. Platts symbols for all pricing locations were added in Part VII and the order of pricing location listings was revised to group them by six geographical regions.

**November 2013:** Added WestCoast Energy, station 2, to monthly bidweek market effective bidweek trading November 2013 for

December 2013 delivery. Changed name of CenterPoint Energy Gas Transmission to Enable Gas Transmission. (In the daily price tables, the CenterPoint, East” listing was changed to “Enable Gas, East,” effective trade date November 25, 2013, and in the monthly bidweek tables “CenterPoint Energy Gas Transmission Co., East” was changed to “Enable Gas Transmission, LLC., East” effective bidweek trading November 2013 for delivery December 2013.)

**July 2013:** Clarification of methodology for Western Canadian daily price indices Westcoast, station 2, and NW, Can. Bdr. (Sumas) for Canadian holidays that fall on Mondays.

**April 2013:** Additions of Transcontinental Gas Pipe Line, Leidy Line receipts and Tennessee Gas Pipeline, Zone 4-200 leg pricing locations to the daily and monthly bidweek markets.

**January 2013:** Modification of description for Niagara pricing location to reflect US exports to Canada as well as US imports from Canada.

**October 2012:** Additions of Texas Eastern M-2, receipts and Millennium Pipeline, East receipts to the daily and monthly bidweek markets.

**January 2012:** (second update in January 2012): Addition of Tennessee, zone 4-300 leg to the daily market and the monthly bidweek market.

**January 2012:** Discontinuation of three pricing locations: Natural Gas Pipeline Co. of America, Louisiana, in the daily and monthly bidweek markets; Stingray Pool in the daily market; and Stanfield, Ore., in the monthly bidweek market only. (The Stanfield, Ore., location continues in the daily market.) The changes became effective January 1, 2012. Additionally, language was added to the PG&E, Malin location description to make explicit that the location includes deliveries from Gas Transmission Northwest and Ruby Pipeline.

# Platts Assessments Methodology Guide

**Latest update: April 2021**

This guide details the methodology employed by S&P Global Platts in all its commodity assessments. Details on particular commodity assessments can be found in relevant Specification Guides available on the Platts website. Details on the methodologies employed in Platts commodity indices are available separately in the relevant index methodology guides.

<b>Introduction</b>	<b>2</b>	<b>Part IV: Platts editorial standards</b>	<b>13</b>
How this methodology statement is organized	2		
<b>Part I: Input data</b>	<b>2</b>	<b>Part V: Corrections</b>	<b>13</b>
Reporting data to Platts	3	<b>Part VI: Requests for clarifications of data and complaints</b>	<b>13</b>
What to report	3		
How to report	3	<b>Revision history</b>	<b>14</b>
MOC data publishing principles	4		
<b>Part II: Security and confidentiality</b>	<b>8</b>		
<b>Part III: Determining assessments</b>	<b>8</b>		
MOC price assessment principles	9		
Normalization price adjustment techniques	9		
Prioritizing data	10		
Assessment Determination	10		

## INTRODUCTION

S&P Global Platts methodologies are designed to produce price assessments that are representative of market value, and of the particular markets to which they relate. Methodology and specifications documents describe the specifications for various products reflected by Platts assessments, the processes and standards Platts adheres to in collecting data, and the methods by which Platts arrives at final assessment values for publication.

Platts discloses publicly the days of publication for its price assessments, and the times during each trading day in which Platts considers market information in determining its assessment levels. This schedule of publication is available on the Platts website, at the following link: <https://www.spglobal.com/platts/en/our-methodology/holiday>.

The dates of publication and the assessment periods are subject to change in the event of outside circumstances that affect Platts ability to adhere to its normal publication schedule. Such circumstances include network outages, power failures, acts of terrorism and other situations that result in an interruption in Platts operations at one or more of its worldwide offices. In the event that any such circumstance occurs, Platts will endeavor, whenever feasible, to communicate publicly any changes to its publication schedule and assessment periods, with as much advance notice as possible.

Platts methodologies have evolved to reflect changing market conditions through time and will continue to evolve as markets change. A revision history, a cumulative summary of changes to this and previous updates, is included at the end of the methodology and specification documents. Methodology is reviewed regularly to ensure it reflects current market reality. Such reviews are carried out by Platts reporters and their managers, supplemented and supported by price methodology specialists who operate separately from the reporting teams.

Platts follows a clearly defined process for public consultation on material changes to its methodologies. This process is based on full transparency and communication with industry stakeholders aimed at gaining market acceptance for any proposed introduction or changes to methodology. For more information on the review and approval procedures, please visit: <https://www.spglobal.com/platts/en/our-methodology/methodology-review-change>. All Platts methodologies reflect Platts commitment to maintaining best practices in price reporting.

### How this methodology statement is organized

This description of methodology for assessments is divided into six major parts (I-VI) that parallel the process of producing price assessments.

- Part I describes what goes into Platts assessments, including details on what data market participants are expected to submit, the process for submitting data and criteria for timeliness of market data submissions, as well as the editorial collection of input data from market sources.
- Part II describes any security and confidentiality practices that Platts uses in handling and treating data.
- Part III is a detailed account of how Platts collects bids, offers, trades and other market data, and what Platts does with the data to formulate its assessments. It includes descriptions of the methods that Platts uses for reviewing data, and the methods used to reflect data in assessments. This also includes the procedures used to identify anomalous data. This section describes how and when judgment is applied in this process, the basis upon which transaction data may be excluded from a price assessment, and the relative importance assigned to each criterion used in forming the price assessment. This section describes the minimum amount of transaction data required for a particular price assessment to be published. This is based on reported

transactions and other market information. Finally, this section describes how Platts addresses assessment periods where one or more reporting entities submit market data that constitute a significant proportion of the total data upon which the assessment is based.

- Part IV explains the process for verifying that published prices comply with Platts standards.
- Part V lays out the correction principles for revising published prices and the criteria Platts uses to determine when it publishes a correction. Part VI explains how users of Platts assessments can contact Platts for clarification of data that has been published, or to share a complaint. It also describes how to find out more about Platts complaint policies.
- Platts separately publishes a list of detailed specifications for the trading locations and products for which Platts publishes assessments for a particular commodity, which can be found at <https://www.spglobal.com/platts/en/our-methodology/methodology-specifications>. These specification guides describe why specific units of measurement are used, and what conversion factors are used to move between units of measurement, where relevant. Platts also publishes a Conversion Base Rates guide that identifies the base rate values used energy, mass and volume conversions used throughout Platts assessment processes and published content, which can be found here: <https://www.spglobal.com/platts/en/our-methodology/conversion-tables>.

## PART I: INPUT DATA

Platts objective is to ensure that input data that editors use as the basis for their price assessments is of the highest quality. Ensuring that data used in Platts assessments is of high quality is crucial to maintaining the integrity of Platts various price assessment processes.

Platts encourages entities that submit any input data for consideration in its assessment processes to submit all market data that they have which may be relevant to the assessment being made. Platts aim is to determine the full circumstances surrounding all reported transactional data, including details of quality, specifications, order sizes, dimensions, lead times and any locational and loading/delivery information. Platts uses that information to determine a typical and repeatable market level for the commodity being assessed.

### Reporting data to Platts

Platts assesses a variety of different markets and commodities. In some of these Platts receives information from back office functions. However, in many markets back office functions are not best placed to communicate relevant market data to Platts editors, and in these instances Platts has processes in place to ensure that data is corroborated either through reviews of entities participating in its process, or through source validation and publication of information.

As part of its standard editorial practice, Platts routinely reviews the companies participating in its price assessment processes. These reviews ensure the suitability of data and information that are used to formulate Platts end-of-day price assessments. These reviews are conducted on a regular basis and may take into consideration an array of issues including, but not limited to, adherence to editorial guidelines, operational and logistical issues, as well as counterparty acceptance. Further details concerning Platts Market on Close (MOC) Participation Guidelines can be found online at <https://www.spglobal.com/platts/en/userform/moc>.

The reviews are not designed to impede a company's ability to bilaterally engage in market transactions; the objective at all times is to ensure the integrity of published price assessments. Platts does not disclose the nature or scope of routine reviews of data providers that participate in its price assessment activities.

Platts may consider verifiable data reported and published through the day as provided for publication by individual sources, through established editorial methods.

Platts has developed guidelines for Management of Sources that address source identification, source evaluation, source development, using source information and source dependency. Individual sources are verified as per Platts Source Management Guidelines.

Platts considers several criteria as to whether to use source information. These criteria include:

- Company reputation
- Source position within a company
- Source understanding and knowledge of the market in question
- Ability of source to provide relevant, valuable information
- Ability of Platts to verify information with other sources
- Source credibility

### What to report

- Platts encourages all market participants to submit all data that may be relevant to Platts assessments, including but not limited to:
  - Firm bids that are open to the marketplace as a whole, with standard terms
  - Firm offers that are open to the marketplace as a whole, with standard terms

- Expressions of interest to trade with published bids and offers, with standard terms
- Confirmed trades
- Indicative values, clearly described as such
- Reported transactional activity heard across the market, clearly described as such
- Other data that may be relevant to Platts assessments
- Market information received by Platts that meets its guidelines may be published as headlines, or 'heards', on its real-time services, and additionally distributed through other information services for further visibility.
- Please note that information submitted after the timestamp of an assessment will not be considered for that day's assessment process.

### How to report

Platts accepts any reasonable method of delivery/communication of information provided for publication in real-time, including for bids, offers and transactions. Platts editors typically communicate with market participants through phone, eWindow (if relevant) and/or online instant messaging systems. eWindow is a communication tool licensed from Intercontinental Exchange to allow the submission of data to Platts.

Platts tries to accommodate the communication needs of market participants and will endeavor to open any additional communication channels required. Other means of communication, such as emails, are acceptable but are considered to be atypical. If a market participant chooses to communicate with Platts editors using such atypical means, this needs to be highlighted well ahead of the assessment process.

The following reporting methods are accepted by Platts:

- Commonly used Instant Messaging software
- eWindow
- Telephone
- Email

Reporters covering the markets in Asia and the Middle East are generally contactable from 09:30 to 18:30 Singapore time, those covering Europe and Africa from 09:30 to 18:30 London time, and those covering the Americas from 08:30 to 17:30 Houston time.

### Data publishing principles

The Platts Market on Close (MOC) assessment process establishes core standards for how data is collected and published, how data is prioritized by value, and ultimately how data is analyzed in the course of completing Platts assessments.

Transparency underpins Platts data publishing processes. Under Platts MOC guidelines for collecting and publishing data, Platts publishes market information including but not limited to firm bids and offers, expressions of interest to trade and confirmed trades that are received from market participants throughout the day.

This information is published in real-time, as it is received, on Platts information services. Platts endeavors to publish all information received that meets Platts editorial standards, so that it can be fully tested by the market at large. Information collected and published includes the identities of buyers and sellers, confirmed prices, volumes, location, and stated trading terms.

Platts assessments are designed to reflect repeatable market value at the close of the assessment process. Platts tracks

market price evolution during the entire day, and publishes a wide range of data relating to market value as it does so. All data that has been published through the day is analyzed during the assessment process. Towards the close of the day, Platts focuses its assessment process on publishing named firm bids and offers, expressions of interest to trade and confirmed trades, with all relevant details. Transparent data is prioritized in the assessment process because it is available to the entire market for testing.

In order to ensure that all firm bids and firm offers that still stand at the close of the assessment process have been fully tested in the market at large, Platts has established clearly defined time cut-offs that apply when publishing firm bids and firm offers in the MOC process. Time cut-offs for the submission and subsequent publication of new bids and offers are applied so that MOC participants cannot provide a bid or offer for publication late in the process, and to ensure that every bid and offer published by Platts is logistically executable.

Bids and offers published by Platts are considered to be firm until Platts is informed otherwise, or until the close of the assessment process for the day, whichever comes first. Platts expects all participants in the MOC process to be contactable at all times.

Platts will consider all firm bids and offers as open to the market at large and executable unless informed otherwise by the entity submitting the market information. Platts seeks verification of any transaction originating from a bid or offer submitted for inclusion in the Platts MOC process.

Input data may also include fully and partially confirmed bids, offers and trades, indicative trading values and other market information as provided for publication by individual sources, through established editorial methods.

Market reporters endeavor to verify all market information they receive, including by testing it within the market through the

publishing process. Trades reported as executed are verified as confirmed and Platts seeks to ensure that any firm bids/offers reported are available to the market as a whole.

Platts uses various techniques to confirm the quality of data it receives, including cross checks with counterparties as well as requests for supporting documentation. Platts excludes data in the price assessment process that cannot be verified in the market to the extent deemed appropriate.

All Platts market reporters are trained to analyze the data they receive and to question sources to establish the fullest set of information possible around price data. Reporters are trained to seek a wide variety of information to test reported transactional activity, including the specific price agreed, the counterparty to the trade, the point of origin and destination for delivery of the commodity, the size of the transaction, any physical quality commitments agreed as part of the trade, the terms and conditions of a trade and when a trade was agreed.

Platts publishes relevant information collected that meets its methodological standards, typically through real-time information services and with as much transparency as possible in order to test information within the market.

### MOC data submission process

Platts is an information company and it aims to publish any credible bid or offer reported to it. Platts makes no commitment to publish every bid or offer submitted to it. Frivolous bids, offers and other market data will not be published.

Platts has specific guidelines around data submissions to ensure high quality of information in the assessment process. This includes detailed guidelines on timings for submissions, which can be found in the specific guide for each commodity process. To ensure proper dissemination of market information, new bids and offers for publication by Platts must be received by Platts no later than stated cut-off periods.

The purpose of the time cut-offs is primarily to ensure logistical executability and standards of incrementability and repeatability to ensure an orderly assessment process. As such, they may be changed at short notice if evolving market conditions require.

Repeatability means the value can be transacted at a given time by a broad representation of independent parties. It is one of the tools Platts uses to understand if indications are representative of market value. For a trade to be repeatable, it must result from a bid or offer acceptable and available to a broad representation of independent parties. Transactions that result from bids and/or offers that have atypical terms or conditions, or cannot be demonstrated to be available to the broad market, may not be representative of the market clearing price and may be considered “one-off” transactions. Where an open bid or offer remains unfilled at a previously traded price, the traded value would be considered unrepeatable at that time as there is no further trading interest at that level.

In order to ensure that all published data is fully tested in the market, Platts has established guidelines around the publication of improvements to bids and offers. This incrementability measures the amount and velocity with which a bid or offer can be improved in the Market on Close (MOC) in particular, and the broader market in general. It is typically applied in markets in which Platts observes transparent bids/offers. It is not a measure of the speed and rate at which a participant retreats from value. Platts analyzes bids and offers that move away from value to ensure reasonability.

Different markets will reflect different incrementability standards. Incrementability guidelines in each specific market Platts assesses reflect considerations like the publishing method employed, the speed of communication, the speed of decision-making, and include the standardization of bids and offers.

Platts may notify the market of any adjustment to the standard increments in the event of market volatility or a disruptive event. A market participant can withdraw a bid or offer from the Platts

MOC process at any time, so long as no other potential trading counterparty has indicated that it has interest to buy or sell into the bid/offer.

Platts expects that market participants bidding and offering in the MOC process will perform on their bid/offer with the first company of record to express interest to Platts for publication during the MOC process. In the event of a dispute on the timing, Platts will review its records and determine which company communicated to Platts first its intention to execute on a bid/offer displayed on the Platts systems. Platts prioritizes data on the basis of timeliness. This sequence is critical for an orderly assessment process.

Platts editorial guidelines governing its assessment process require it must consider only those transactions, bids or offers where market participants perform under typical contractual terms. Platts accepts that individual companies may have trading limits with counterparties and that national legislation may prevent companies from dealing in materials of certain origins. Such counterparty issues are dealt with on a case-by-case basis.

All bids and offers are firm from the moment of submission.

Submissions of bids, offers or transactions should not be considered as received by Platts unless acknowledged as received by Platts. For communication initiated by phone Platts will consider the time when the trader actually communicated the bid/offer or transaction. Acknowledgment may take the form of “yes,” “OK,” “y,” “k,” or any other reasonable forms, including by sending back the published information. Platts considers the timestamp of record of a company’s intent to buy/sell as the time that Platts receives the information, as opposed to the time a message was sent by the trading party or to a potential counterparty.

Bids and offers submitted on time but in an incomplete form, where the terms are only clarified after the cut-off deadline, will

not be used in the assessment process.

As a general recommendation Platts advises market participants not to wait for the last possible minute before the cut-off deadlines for bids and offers, as the communication may not be completed on time.

A buyer or seller can communicate with Platts directly to express buying or selling interest. Platts may also take into consideration bids and offers submitted via a broker, provided the buyer or seller have communicated to Platts that they have authorized the broker to communicate on their behalf.

Platts only considers for publication transactional interest for bids or offers that have already been published by Platts. Interest in bids or offers at prices that have not been published will be disregarded. Should a buyer lower its bid or a seller increase its offer, an expression to trade at a previously published level will not be considered.

Platts editorial processes require full clarity when communicating bids/offers and intentions to trade. When expressing an intention to hit a bid or lift an offer in the MOC processes, any message should typically include the specific price of the trade and the name of the counterparty. Information may not be published if it is not sufficiently clear when communicated to Platts.

Following any trade, an intention to rebid or reoffer must be received by Platts as soon as is possible and within a reasonable time frame, as per incrementability guidelines.

Unless sellers/buyers expressly inform Platts of their continued interest to buy/sell after a deal, Platts will presume the original buyers or sellers are not there for additional volume.

A rebid or reoffer must match the initial position’s parameters, with the exception of price or volume. A rebid or reoffer can be made at the same level or inferior to the traded price. For



example Company B hits Company A's bid for \$100/mt during the MOC. Company A can rebid at \$100/mt or below this level. If the MOC process for the market includes a "freeze" period at the close of the process, bids and offers may only be repeated at the last published price.

When there are multiple bids or offers at the same level, the first participant to reach that level should be the first to be traded. Subsequent deals will go to the second, third and fourth participant at the same level. When a participant is traded, any repeat of their bid/offer will move to the back of the bid/offer queue that exists at the time it is received.

Platts will consider the first participant to express their interest in a bid or offer to be the counterparty for the subsequent trade. Platts will monitor timestamps in the event of a dispute to determine who the first buyer or seller was. In the event of a bid or offer being repeated, the queue of participants expressing interest in that position will be reset. Platts will not consider any interest expressed in a rebid or reoffer before the position is published to be executable during the MOC assessment process.

After a bid or offer is published, only price can be changed, while in certain markets volume may be adjusted to be multiples of a minimum volume. The quality or loading/delivery timing cannot be changed. Buyers or sellers can withdraw bids/offers at any time, provided no prior interest to transact has been expressed by any potential counterparty. If a participant trades another position during the MOC assessment process, they must communicate to Platts if they wish to withdraw their existing position following the trade. Otherwise, it is assumed the participant's own position remains active until the close.

All participants that have reported bids and offers for publishing in the Platts process are expected to promptly report any transactions stemming from available bids or offers reported to Platts as part of the MOC assessment process.

Platts synchronizes its computer clocks precisely every day,

and will compare the time of any submitted bid, offer or transactional interest against this synchronized time. Please note that Platts applies the timing deadlines strictly.

For the purposes of clock synchronization, market participants may find the following internet link to be helpful: <https://www.time.gov/>. This link offers an atomic clock reading for US time zones.

In markets where Platts eWindow is in operation, the eWindow clock will be used to determine the correct sequence of events when a bid or offer is amended, withdrawn, or traded by an interested counterparty. Bids or offers submitted by phone, or any other medium, such as instant messaging software, shall be measured at the time the bid, offer or trade indication is actually transmitted through the eWindow system. As per Platts methodology, buyers or sellers can withdraw bids/offers at any time when communicating through eWindow, provided no prior interest to transact has been expressed by any potential counterparty. All bids and offers are firm from the moment submitted into eWindow to the moment they are traded, the window period closes or the bid/offer is withdrawn from the system by the trader or a Platts editor.

In processes which are not facilitated by eWindow, Platts will compare the time of any submitted bid, offer or transactional interest via instant messenger or phone against Platts synchronized clocks. Bids or offers submitted by phone, or any other medium, such as instant messaging software, shall be clocked at the time the bid, offer or trade indication is received.

Terms of trade such as quality, delivery port, timing of delivery/loading and price are fully up to the company submitting the bid or offer.

Platts cannot make any guarantee in advance about how and whether market information received and published but not fully adhering to its defined methodology will be incorporated in its final assessments.

### Atypical bids, offers, trades

Platts may publish bids, offers and trades with atypical pricing terms, including benchmark bases and timing. Market information with atypical pricing inherently differs in value from the typical and commonly observable information in the market.

Bids and offers which are deemed as atypical relative to the market may not be fully taken into consideration for the assessment process. In the absence of an associated, liquid derivative instrument atypical pricing bases may be difficult or impossible to evaluate on an outright price equivalent.

Such bids/offers or transactions would be at best indicators of an overall market condition, but they would not be seen as exact indicators of market price.

Any unusual condition or request regarding a commodity should be specified at the moment the initial bid or offer is made. Any unusual request that surfaces at the time a counterparty is ready to trade and that impedes the normal flow of a transaction could be seen as an impediment to trade.

Information reported by market participants that may have legal implications, including but not limited to potential libel, will not be published.

Market participants are encouraged to inform Platts when they cannot trade with another typical market participant due to performance, credit or legal issues before the cut off deadlines for initial bids and offers. Platts may ask market participants to provide supporting documentation to ensure the integrity of its assessment process.

### Law

Contracts using English law are considered standard in the assessment process.

### General Terms and Conditions

Companies' general terms and conditions are normally

recognized provided they are consistently applied and accepted as part of normal trading practice. Counterparties are expected to perform on trades reported in the MOC based on typical GT&Cs that have been applied and accepted by both counterparties in the open market.

If an offer is lifted by a buyer during the MOC process, Platts would expect typical GT&Cs between both parties to be applicable, even where the GT&Cs stated in the originally published offer may differ, if the companies have not conventionally performed on the published GT&Cs.

At no time can a company impose its own GT&Cs after hitting a bid or lifting an offer made under a different standard.

#### Customs duties

Platts assessments reflect commodities traded under standard contract terms, typically including references to international commercial terms such as FOB, CIF, CFR, DES and DAP.

Among other items, these terms state the responsibilities for payments of costs among buyers and sellers, including import customs duties and taxes. As such, where Platts assessments state duty-unpaid terms including CIF, CFR, DES and DAP, these reflect bids, offers and trades wherein the seller is not responsible for payment of import duties.

Should buyers wish to submit for publication bids for Delivered Duty Paid – DDP - terms, Platts may consider these for publication and normalize them to a duty unpaid standard for reflection in CIF, CFR, DES and DAP assessments.

Some reported delivered market data, including bids, offers and trades for specific origins, may reflect an adjusted price to account for higher duties applicable to material from those origins. Platts considers that such prices offset some applicable duties and in effect may mean these transactions do not represent the standard duty unpaid value of a delivered transaction. Platts may therefore normalize bids, offers and

trades that include such offsets to a duty unpaid delivered value for reflection in its assessments.

#### Commodity origins

Platts reflects products from all appropriate origins in its delivered assessment processes, and bids and offers published in the Market on Close process are considered open origin unless otherwise stated.

Bids and offers for delivered material that contain statements surrounding origin may be considered by Platts for publication. Platts may not publish such statements if an origin exclusion is deemed unperformable or overly restrictive. Conversely, such indications may also not be published if the exclusion is implicit in the prevailing market standard. If published after review, origin exclusions may be subject to normalization in value.

#### Embargoed products

Laws stating that nationals from specific countries may not buy products from embargoed countries may prevent market participants from lawfully executing transactions. A seller therefore may not assume that a buyer has the obligation to buy embargoed materials. Under Platts assessment guidelines, commodities supplied from countries or entities that are subject to trading embargoes and sanctions recognized under international law should not be delivered against transactions concluded during the MOC assessment processes. Bids and offers that contain statements surrounding delivery of embargoed materials will be considered by Platts for publication, and if published after review may be subject to normalization in value.

#### Trade performance

Platts is aware that physical conditions regarding logistics which are beyond the control of the seller or buyer may result in lateness, quality issues or conditions seen as a deviation from the original wording in the contract, for example late delivery/loading.

These deviations will be seen in the larger context of physical trading, and should not be seen as an indication of Platts condoning lateness.

Platts will review patterns of logistical performance, since adjustments due to late performance and/or quality issues should be extraordinary and not recurring events.

Participants who are intending to sell should not offer when there is a known and distinct possibility that loading/delivery may be delayed. If congestion or delays prevent performance under the contractual terms, the seller should make reasonable and timely efforts to supply from an alternative source, or the seller should engage in other measures to alleviate the buyer's exposure.

Equally, a buyer should not over-commit and then aggregate nominations in a way that makes it logistically impossible for the seller to perform.

Platts will take appropriate steps to ensure the integrity of its assessments if issues of non-performance should arise.

In summary, performance is paramount and all bids and offers must be firm and transactions should be performable within the contractual parameters.

Platts only recognizes bids, offers and transactions where no party claims a right to unilaterally cancel a transaction. If a transaction becomes difficult the party causing the issue must seek resolution including alternative loadings, qualities, dates or book outs.

#### Compensation

Platts publishes bids, offers and transactions on the basis that participants will fulfil the full value of the physical contract.

A party deemed to have underperformed or not performed under the original contract is expected to compensate the affected party.

In almost all circumstances, the compensation is not, and should not be due to a flat price change, but should include parameters such as backwardation, logistics, and the inconvenience for the buyer in the case of a seller not performing, or contango, logistics and the inconvenience for the seller in the case of a buyer not performing. Compensation should not include consequential costs.

Such adjustments should be fair and in line with market practice, and should be reciprocal in the event that the inverse situation occurs in the future.

Compensation is subject to Platts editorial review to ensure market practices and overall fairness in the transaction have been followed. Platts review may include an analysis of reasonable compensation. Platts views compensation as a part of full performance due under the parameters of a trade reported in the assessment process.

#### Force majeure

Force majeure is part of trading and may be invoked under very special circumstances. Platts editors will monitor the application of it to ensure that force majeure is not invoked frivolously.

#### Booking out trades

Booking out trades done during the MOC assessment process is acceptable under exceptional circumstances. A stressed party may request to book out a trade, but its counterparty is under no obligation to accept such request.

In those exceptional cases where both counterparties agree to book out a trade, Platts expects the original spirit of the contract to be fulfilled where the non-performing party offers to buy/sell back the position and compensates the affected party.

In almost all circumstances, the adjustment is not and should not be due to a flat price change, but should be to include parameters such as market structure, logistics and the inconvenience for the buyer or seller expecting a normal

transaction. Such adjustments should be fair and in line with market practice, and should be reciprocal in the event that the inverse situation occurs in the future.

Furthermore, circle outs may occur when the original seller sells a parcel that is later sold into a third party that has a sale into the primary seller. Such “circle outs” are considered a normal part of trading as sometimes chains originate and finish at the same point.

Book outs and circle outs are subject to Platts editorial review to ensure market practices and overall fairness in the transaction have been followed. Platts review may include proposals/arrangements to protect the integrity of its assessment process.

#### Review of trades

Platts may track all aspects of performance on trades reported during its MOC assessment process. Platts not only focuses on the performance of the transaction at the time of trade, but also on any significant issues stemming from such trades, including logistics and eventual delivery. Trades executed through the MOC assessment process may be reviewed from time to time for performance completion. Platts therefore may request documentary material to determine performance and validity. Such material may include details of quality, location, vessel and laycan nominations. MOC trades may be subject to Platts editorial review to ensure market practices and performance in the transaction have been followed.

A failure to meet Platts guidelines for participation and performance in the MOC may lead to an event driven review. Event driven reviews are designed to help ensure that transactional information and other data inputs used as the basis for Platts price assessments are representative of market value on an ongoing basis.

Post-deal tracking enables Platts to determine the actual performance of the participants in the trade and the validity of their inputs. Platts may publish confirmation of trade performance information.

#### Specification

Platts assessments reflect typically traded qualities of commodities. Specifications are available in individual specifications guides, published on the Platts website <https://www.spglobal.com/platts/en/our-methodology/methodology-specifications>.

#### Testing of products

Traded commodities are subject to standard testing techniques and protocols to determine contractual performance. Platts typically follows the standards already in place in the trading market, although it may monitor these to ensure that the standards are adequate.

#### Implied guarantees in specifications

Bids and offers submitted to Platts that include numerical specifications will be assumed to have a series of zeroes to the right of the decimal point or to the right of the last digit to the right of the decimal point.

As an example, a fuel oil cargo with a maximum guarantee of 0.1 Shell Hot Filtration will be considered as 0.1000 etc. If the specification guarantees are otherwise, the buyer or seller should specify it clearly to avoid potential disputes.

#### Merchantability

Platts only considers in its assessments commodities that are merchantable. Hence, buyers may assume that offers or transactions are for a commodity that is merchantable. Sellers must ensure their offers or transactions are for merchantable commodities.

## **PART II: SECURITY AND CONFIDENTIALITY**

Data is stored in a secure network, in accordance with Platts policies and procedures. Platts assessments are produced in accordance with Platts MOC assessment methodology. This means that all data for use in Platts assessments may be

published by Platts editorial staff while assessing the value of the markets.

Platts does not have confidentiality agreements in place for information that is submitted for use in its assessments.

## PART III: DETERMINING ASSESSMENTS

The following section describes how Platts uses concluded and reported transactions, bids, offers and any other market information it has collected in the manner described in Part I, to formulate its price assessments. Additionally, this section describes other information, including the normalization of market data, assumptions and extrapolations that are considered when making a final assessment.

### Price assessment principles

Through the MOC assessment process, Platts considers market information gathered throughout the normal trading day, and publishes such information throughout the day. Platts analyzes all published information in determining its final published price assessments. Information submitted after the close will not be considered for that day's assessment process.

Platts seeks to establish and publish the value of markets that prevail at the close of the assessment process. Platts has aligned the timestamps reflected in its assessments with what typically is a period of high activity in the markets that Platts observes. Platts believes that aligning its price assessments to typical periods of greater market activity and liquidity provides a robust basis upon which to derive an assessment of market value. Timestamps for each assessment are included in the specifications guide for that assessment.

Platts has adopted the MOC methodology in order to provide complete clarity over the precise point in time reflected in

its market assessments. Like the quality of a commodity, its delivery location, delivery dates, contract terms, and the volume to be supplied, the time of commercial activity is an important attribute considered in Platts price assessments. The time that a bid or offer is shown to the market, or a transaction concluded, is vitally important in understanding the market value of the respective commodity, in the same way that the quality of the commodity, where it will be delivered and when it will be delivered are important factors. By clearly reflecting value at a defined point in time Platts is able to properly reflect outright and spread value.

The clarity established by providing a well-defined timestamp is also important for understanding the relationships between the markets that Platts assesses. By ensuring that all assessments within a region reflect market value at the same moment in time, spreads that exist between commodities are also able to be fully and properly reflected. For example, comparing the value of a raw material to a processed commodity is possible when both values have been determined at the same moment in time. By contrast, comparing the price of raw material in the morning, to processed material in the afternoon, might deeply impair the relationship between the commodities – particularly when the respective market prices move independently during the intervening period.

By providing clear timestamps for assessments, the Platts MOC process is designed to provide assessments that properly reflect outright and spread value during times of high volatility equally well as in times of modest volatility.

MOC guidelines are designed to avoid distortion of the final price assessments by eliminating inputs that are not fully verifiable, and by disregarding one-offs or unrepeatable transactions, or those that may distort the true market level. Transactions between related parties are, for instance, not considered in the assessment process.

Deals done below the level of prevailing bids or above the level

of prevailing offers (i.e., selling through the bid or buying through the offer) will not be reflected in Platts assessments. Platts will only publish expressions of interest to trade with the most competitive, tradeable bid or offer available.

Platts does not specify a minimum amount of transaction data, or a transaction data threshold, for the publication of its price assessments. Physical commodity markets vary in liquidity. Any particular market analyzed on its own will typically demonstrate rising and falling levels of transactional activity through time. Platts is committed to providing an assessment of value for every market that it covers, equally well in times of heightened or reduced liquidity.

Platts seeks to receive market information from as broad a cross section of the market as possible. If a very limited number of market participants are active in the market, or if a limited number submit data that constitutes a significant proportion of the total data upon which the assessment is based, Platts will continue to seek fully transparent and verifiable data from the market at large and to apply Platts methodology principles of transparency and time sensitivity. Platts considers data for assessment of any market where a single company provides more than half of all available information to be one where such a company provides a significant proportion of data. For consideration in the MOC process such a company's bids or offers must be clearly available for execution by any other potential MOC trading counterparty.

### Normalization price adjustment techniques

Platts seeks to align the standard specifications for the markets it assesses and the timestamps reflected in its assessments with standard industry practice. However, physical commodity markets are generally heterogeneous in nature. Key attributes often vary from the base standard reflected in Platts assessments as material is supplied to market.

The quality, delivery location and other specific terms of trade may vary in the physical commodity markets assessed by Platts. This means that simple averages of trades may not produce a representative assessment value of a physically heterogeneous market.

Because of the complex nature of the physical markets, market data typically must be aligned with standard definitions to allow for a fully representative final published assessment. Platts aligns data collected through an analysis of the physical markets with its standard assessment specifications through a process called normalization.

Normalization is an essential price adjustment technique used to align reported market information to the base standard reflected in Platts price assessments.

Platts establishes the level of normalization by surveying markets and observing the economic impact of variance from the base standard. This is done by analyzing locational differences, quality differences, the movements of all markets through time and other differentials associated with the size of trades and delivery terms.

Normalization for time may be done by analyzing movement in a related market observed through time, and that movement may provide a basis by which to align market value of an earlier reported bid, offer or transaction to market value at the MOC close. The alignment for time is essential to ensure that Platts price assessments reflect the prevailing value of a market at the close of the MOC process.

### **Prioritizing data**

Transparency underpins Platts assessment process, just as it does Platts data publishing processes. When determining a final market assessment, Platts gives the greatest priority to fully verifiable and transparent market information. Platts considers that a confirmed, verified trade may represent value

for the entities involved in the transaction, whereas an unfilled, but confirmed and verified, bid or offer represents value for the whole market. As such, Platts prioritizes competitive bids and offers that stand at the close of its assessment process above previously reported transactions.

Platts assessment process considers firm bids, firm offers and arms-length transactions that are transparent and open to sufficient, credible counterparties. Transparent bids, offers and trades are given greater priority than non-transparent market information. Anonymous bids above transparent offers or anonymous offers below transparent bids may not be considered in the assessment process.

A firm bid or offer that has been published by Platts in accord with its data publishing standards, as outlined in Part I, and which still stands open to the marketplace at the close of the assessment process, will establish clear parameters for Platts final published assessments. Platts will typically assess market value between the best firm bid and best firm offer open to the market at the close. This ensures that Platts assessments reflect the transactable value at the close.

Completed, transparent transactions that are fully published by Platts are important in helping establish where trading interest prevails in the market, and may help determine where, in a bid/offer spread, Platts may assess value for publication.

Firm bids and offers that are available to the entire market take precedence over trades that have been concluded earlier in the assessment process when establishing the value of the market, particularly if bids are available at the close above previously traded levels, or offers are available to the market below previously traded levels. Value is a function of time.

Similarly, firm bids and offers that are available to the entire market take precedence over transactional activity reported to Platts after completion.

The level of each bid or offer must stand firm in the marketplace long enough for any counterparty to transact; otherwise the bid or offer may be deemed non-executable. Platts may not consider bids, offers or transactions that are the result of market gapping. Gapping occurs when a bid and an offer are more than one increment apart and a trade occurs. Platts will analyze and evaluate such trades for their representative value. They may not be fully reflected in the final assessment.

Platts assessment guidelines are designed to avoid any distortion of the final price assessment and so inputs that are not verifiable and “one-off” or unrepeatable transactions may be disregarded from the price assessment process.

Single transactions may be a reflection of market value. However single transactions need to be measured against the broad span of similar transactions. If for instance a buyer decides to trade an offer but is unwilling to buy more material offered at the same level if the seller reoffers it would be determined that the value failed the repeatability test. Equally if the seller does not reoffer, the value may fail the repeatability test. As such the transaction may not be fully reflected in the price assessment.

Similarly, Platts may not publish bids or offers that are provided through untested price levels. When transactions are concluded at levels that have not been fully tested by the market because price changes have been non incremental, Platts may determine that actual market value is between the last incremental bid and the transaction at the gapped level.

When no bid, offer or transaction data exists, Platts may consider other verifiable data reported and published through the day, including fully and partially confirmed trades, notional trading values and other market information as provided for publication. Platts may observe direct market activity as well as the effect of movements in related markets through spread differentials or blending and shipping economics, for example.

Platts takes into account representative transactions executed

at arms-length in the open market occurring during the trading day, up to the close, and additionally taking into account bid and offer information submitted during this period. Platts editors may require direct verification from the principals to a reported bid, offer or deal when communicated through a third party, including a broker.

## Assessment Determination

### Units of measurement

Platts publishes its assessments reflecting the currencies and units of measurement in which the products typically trade.

Commodities are generally internationally traded in US dollars, and Platts assessments are typically published in that currency as a result. Certain markets, such as regional markets, trade using local currency. Platts assesses the value of such markets as appropriate in local currency.

Commodities typically trade in volumetric or energy units, and Platts assessments for these markets reflect common practice in each market. The units and unit range considered for each individual Platts assessment of a physical market is described in the specification guide for each commodity.

In certain cases Platts converts its assessments to other currencies or units of measurement to allow for ease of comparison or analysis in regional markets. Such conversions are done using exchange rates published regionally. Conversion factors are described in the specifications guide for each commodity alongside individual assessment codes.

<https://www.spglobal.com/platts/en/our-methodology/conversion-tables>

<https://www.spglobal.com/platts/en/our-methodology/methodology-specifications/foreign-exchange/fx-guide>

### Use of judgment

Judgment guidelines promote consistency and transparency and are systematically applied by Platts. Where judgment is exercised, all information available is critically analyzed and synthesized. The various possibilities are critically analyzed and fully evaluated to reach a judgment.

Platts reporters follow specific methodology when exercising judgment or discretion during their assessment process. Platts editors apply judgment when determining (1) whether information is suitable for publication, (2) when and how to normalize data and (3) where to assess final value. All such judgment is subject to review by Platts editorial management for adherence to the standards published in Platts methodologies.

Judgment may be applied when analyzing transactional data to determine if it meets Platts standards for publication; judgment may also be applied when normalizing values to reflect differences in time, location, and other trading terms when comparing transactional data to the base standard reflected in Platts assessments.

To ensure all assessments are as robust as possible, Platts editorial systems are backed by a strong corporate structure that includes managerial and compliance oversight.

An evaluation process is conducted before publication on every benchmark assessment by a competent peer or manager. The price assessments are reviewed and the exercise of judgment is further discussed and verified during this process. Finally, assessments that are used as benchmarks are supported by assessment rationales. These rationales explain the application of judgment and are published together with the relevant price assessment, offering full transparency to the market.

To ensure the consistent exercise of discretion, Platts ensures that reporters are trained and regularly assessed in their own

and each other's markets. Platts manages and maintains internal training guides for each of the different products assessed which aim to ensure Platts price assessments are produced consistently.

Every assessment of a benchmark, including the use of discretion, is reviewed and approved by a competent peer or manager prior to publication.

Reporters are trained to identify potentially anomalous data. Platts defines anomalous data as any information, including transactions, which is inconsistent with or deviates from its methodology or standard market conventions.

As a publisher owned by S&P Global, independence and impartiality are at the heart of what Platts does. Platts has no financial interest in the price of the products or commodities on which it reports. Platts aim is to reflect where the actual market level is.

Platts focuses primarily on assessing the value of a commodity trading in the spot market. A spot price for a physical commodity is the value at which a standard, repeatable transaction for merchantable material takes place, or could take place, in the open market at arms' length. Platts spot price assessments reflect this value at precisely the close of the assessment process.

Platts overall objective is to reflect the transactable value of the commodity assessed. In cases where the apparent value of the commodity includes extra optionalities and co-benefits, the intrinsic value of the commodity may be masked. In such cases, Platts reporters may use judgment to normalize bids, offers or transactions with such extraneous elements to the base market standard, or may exclude them altogether. Optionalities that may mask the value of the commodity include but are not limited to loading or delivery options held by the buyer or seller, size

option tolerances exercisable by the buyer or seller, or quality specifications.

### Outright, differential and spread prices

Platts assesses the outright value of a commodity, as well as differentials when it trades with reference to a benchmark. Platts analyzes all data collected and published by Platts throughout the day. Final assessments are above firm bids, and below firm offers, that stand at the close of the Market on Close assessment process. This is true for outright values and differentials.

Platts physical price assessments use a variety of inputs, including outright price bids/offers, floating price bids/offers, spread price bids/offers (including EFPs, EFSs etc.) and combinations of fixed and floating prices. Platts' objective is to assess the prevailing tradable outright price of the commodity at the close of the market assessment period. In the event of an observed conflict between outright values and differentials or spreads, outright values prevail in Platts final published assessments.

Platts establishes the hedgable, outright value of floating and spread price indications by applying them to the observable, prevailing value of underlying relevant derivatives instruments. In the event of conflicts observed between the outright values derived from floating and spread prices with different underlying references, Platts takes into account considerations that include the relative liquidity of each relevant derivatives market, and the typicality of a given spread or floating price, when exercising judgement around whether to prioritize one particular floating price or spread over another.

Platts may publish bids, offers and trades with atypical pricing terms, including benchmark bases and timing. Market information with atypical pricing inherently differs in value from the typical and commonly observable information in the market.

Bids and offers which are deemed as atypical relative to the market may not be fully taken into consideration for the assessment process. In the absence of an associated, liquid derivative instrument atypical pricing bases may be difficult or impossible to evaluate on an outright price equivalent.

Such bids/offers or transactions would be at best indicators of an overall market condition but they would not be seen as exact indicators of market price.

### Timing

Platts produces time-sensitive assessments that reflect the value of the markets it covers precisely at the close of the price assessment process in each region. By providing clear timestamps for every region the Platts assessment process is designed to provide price assessments that properly reflect outright and spread value.

As an example, gasoline has a value, naphtha has a value and the gasoline versus naphtha spread has a value, and all three match when measured at the same time. By contrast, a system of averages can lead to distortions in the gasoline versus naphtha spread if the distribution of deals done for gasoline and naphtha differs over the averaging period. Thus if gasoline trades actively at the beginning of the assessment period and naphtha trades actively at the end of the assessment period in a rising market, the assessed spread value resulting from an averaging process will not be reflective of actual market value. This distortion can arise even if the value of spread trades in their own right has remained constant. The MOC approach drastically reduces the possibility of such distortions.

Assessments reflect typical loading and delivery schedules for each market assessed. The standard loading and delivery periods are included in the individual specifications guide for each commodity.

Market structure, such as backwardation and contango, is also factored into the Platts assessment process. If a company offers

a parcel loading 15 days forward, the offer may provide market information for the Platts assessment for parcels loading 15 days forward. Platts would still need to assess days 16 through 30 (in a 15-30 day market) and publish an assessment that reflects market value 15-30 days forward ahead of the day of assessment.

### Market structure

Platts is very stringent in following timings for loading or delivery due to the variability in market value across time. This variability increases as the market structure, backwardation or contango, in the markets increases.

Platts factors in the backwardation/contango and reflects its impact on the published assessment. The assessment reflects the value of the commodity normalized to the center of the loading/delivery window. In a contango market, the excess of prompt material causes the front period to be significantly lower in value than material available at the end of the window. In a backwardated market the tightness of supply causes the prompt material to be at a higher price than material available at the end of the window.

Platts methodology eliminates any arbitrary movement in assessments caused simply by the different loading/delivery ranges traded. By normalizing prices to the mid-point of a clearly defined date range, the consistency of prices is maintained. The day-to-day changes in the price assessments therefore reflect an actual price move in the value of the commodity, rather than an artificial change because a cargo happens to be loading/delivering in the front period of the window rather than the back period, or vice versa.

The date ranges reflected by Platts reflect the prevailing trading practices in the region. By not taking very prompt days into consideration, transactions reflecting distressed prices are excluded. The definition of this period varies according to specific markets.

### Determination of backwardation or contango

In calculating market structure, the prices of tradable instruments, including derivatives such as futures and swaps, may be used.

Typical calculations include a determination made for the difference in price over a month; a granular value is then calculated from this for each day.

### Outright and floating price information

The three main factors used in the commodities markets for price determination are:

- Outright price
- Differentials
- Derivatives

These three factors — outright price, differentials and derivatives – converge in a spot price. Platts may use all three in its assessments.

**Outright price:** The ultimate question in the mind of an end-user, producer, trader or broker is price. Outright prices are the simple statement of a price at which something can be bought or sold, with the entire value stated – for example, an offer of a cargo of iron ore at \$100/dmt. Price in turn determines expense, processing margin, profit, loss, etc. The spot market trades actively on an outright price basis and a floating price basis. Platts takes both into account in its assessments. Platts will publish activity on both a fixed and floating basis.

**Differentials:** Many transactions are carried out in relation to a benchmark. In this case a differential, also known as a premium/discount is generated. Differentials can arise if the quality, volumes or loading times for a given transaction differ from the benchmark. In addition, floating price transactions are done in relation to assessments that will be published in the future

– for example, a bid for a cargo at \$10/dmt above the Platts assessment of that same commodity, as published immediately before, during and after delivery of the cargo. Premiums usually rise when the market's backwardation steepens, and the steeper the curve, the greater the premium. In a contango situation, premiums have a tendency to turn into discounts.

**Derivatives:** Derivatives are a major determinant in price; they trade frequently and throughout the day. These markets are very reactive and may provide market participants with timely information on market conditions. They can react to arbitrage conditions or movements in overseas markets as well as local conditions. Derivatives may allow companies to adapt their price exposure because they enable market participants to transform floating prices to fixed or fixed to floating.

## PART IV: PLATTS EDITORIAL STANDARDS

All Platts employees must adhere to the S&P Global Code of Business Ethics (COBE), which has to be signed annually. The COBE reflects S&P Global's commitment to integrity, honesty and acting in good faith in all its dealings.

In addition, Platts requires that all employees attest annually that they do not have any personal relationships or personal financial interests that may influence or be perceived to influence or interfere with their ability to perform their jobs in an objective, impartial and effective manner.

Market reporters and editors are mandated to ensure adherence to published methodologies as well as internal standards that require accurate records are kept in order to document their work.

Platts has a Compliance function that is independent of the editorial group. The Compliance team is responsible for ensuring the quality and adherence to Platts policies, standards,

processes and procedures.

S&P Global Platts appoints an independent, external auditor with appropriate experience and capability to review and report on its adherence to this stated methodology. The annual report is published online at <https://www.spglobal.com/platts/en/about-platts/regulatory-engagement>.

## PART V: CORRECTIONS

Platts is committed to promptly correcting any material errors. When corrections are made, they are limited to corrections to data that was available when the assessment was calculated.

## PART VI: REQUESTS FOR CLARIFICATIONS OF DATA AND COMPLAINTS

Platts strives to provide critical information of the highest standards, to facilitate greater transparency and efficiency in commodity markets.

Platts users may raise questions about our methodologies and the approach we take in our price assessments, proposed methodology changes and other editorial decisions in relation to our price assessments. These interactions are strongly valued by Platts and we encourage dialog concerning any questions a market participant may have.

However, Platts recognizes that occasionally a market participant may not be satisfied with responses received or the services provided by Platts and wish to escalate matters. Full information about how to contact Platts to request clarification around an assessment, or make a complaint, is available on our website, at: <https://www.spglobal.com/platts/en/contact/complaints>.



## REVISION HISTORY

**April 2021:** Platts completed an annual update to this Methodology Guide in March 2021. In the review, Platts added detail to descriptions of data prioritization, duty normalization, 'heards' and exclusion of data submitted after the close. Platts also edited text for style and clarity.

**April 2020:** Platts completed an annual update to this Methodology Guide in April 2020. In the review, Platts added detail to descriptions of repeatability and incrementability, and added a reference to its unit conversion and foreign exchange guide. Platts also edited text for style and clarity.

**April 2019:** Platts completed an annual update to sections 1 to 6 of Platts Methodology and Specifications Guides in April 2019, and moved these sections into this standalone Methodology Guide. The individual commodity Specifications Guides are separated from this overall Methodology Guide. In the review, Platts added in previously published statements on GTCs, commodity origins and customs duties. Platts also updated weblinks, and edited text for style and clarity.

**Case No. 2020-00289**  
**Atmos Energy Corporation, Kentucky Division**  
**Staff Post-Hearing DR Set No. 1**  
**Question No. 1-03**  
**Page 1 of 2**

**REQUEST:**

Refer to Atmos's response to Staff's Third Request for Information, Item 2, Attachment 1 and Attachment 2.

- a. Provide a map of the Texas Gas Transmission pipeline showing the zones and the major receipt and delivery points.
- b. Provide a map of the Trunkline pipeline, identified in Attachment 1, showing the zones and the major receipt and delivery points and, if not indicated in Attachment 1, identify the zone(s) in which Atmos Kentucky's receipt points are located.
- c. Provide a map of the ANR pipeline, identified in Attachment 1, showing the zones and the major receipt and delivery points and, if not indicated in Attachment 1, identify the zone(s) in which Atmos's receipt points are located.
- d. Provide a map of the Tennessee Gas Pipeline showing the zones and the major receipt and delivery points and, if not indicated in Attachment 2, identify the zone(s) in which Atmos's receipt points are located.

**RESPONSE:**

Due to the level of detail in the maps, internet links are being provided to facilitate visualization. In addition to the links, please see Attachment 1, which contains the 13 responsive pipeline maps requested in subparts (a) through (d).

Link to Texas Gas Maps:  
<https://infopost.bwpipelines.com/Frameset.aspx?url=%2FPosting%2FDefault.aspx%3FMode%3DDisplay%26Id%3D59&tspid=100000>

Links to Trunkline Maps:

<https://tgcmessage.energytransfer.com/ipost/TGC>  
<https://tgcmessage.energytransfer.com/ipost/TGC/maps/field-zone>  
<https://tgcmessage.energytransfer.com/ipost/TGC/maps/zone1b>

To assist in finding the Trunkline points, refer to Attachment 1 to the Company's response to Staff DR No. 3-02, "Trunkline" tab, cells I13 and I14 for receipts, and cells K13 and K14 for deliveries.

**Case No. 2020-00289**  
**Atmos Energy Corporation, Kentucky Division**  
**Staff Post-Hearing DR Set No. 1**  
**Question No. 1-03**  
**Page 2 of 2**

Links to ANR Maps:

[http://ebb.anrpl.com/Tariff/map/ANR\\_SYS\\_MAP.PDF](http://ebb.anrpl.com/Tariff/map/ANR_SYS_MAP.PDF)  
[http://ebb.anrpl.com/Tariff/map/ANR\\_SE1\\_MAP.PDF](http://ebb.anrpl.com/Tariff/map/ANR_SE1_MAP.PDF)  
[http://ebb.anrpl.com/Tariff/map/ANR\\_SE2\\_MAP.PDF](http://ebb.anrpl.com/Tariff/map/ANR_SE2_MAP.PDF)  
[http://ebb.anrpl.com/Tariff/map/ANR\\_SE3\\_MAP.PDF](http://ebb.anrpl.com/Tariff/map/ANR_SE3_MAP.PDF)

The Atmos Energy contractual receipt and delivery zones for ANR are indicated on Attachment 1 to the Company's response to Staff DR No. 3-02, "ANR" tab, cells H13 and H14 for receipts, and cell J13 for deliveries. ANR uses several identifiers for its areas/mainline zones. ML-1 corresponds with the (1) Southeast SE area; ML-2 corresponds with the (2) Southeast Southern segment; ML-3 corresponds with the (3) Southeast Central segment.

Links to Tennessee Gas Pipeline Maps:

[https://pipeline2.kindermorgan.com/Documents/PDFView.aspx?code=TGP&fname=TGP\\_System\\_Map.pdf](https://pipeline2.kindermorgan.com/Documents/PDFView.aspx?code=TGP&fname=TGP_System_Map.pdf)  
[https://pipeline2.kindermorgan.com/Documents/TGP/TGP\\_Map\\_Zone\\_0.pdf#def](https://pipeline2.kindermorgan.com/Documents/TGP/TGP_Map_Zone_0.pdf#def)  
[https://pipeline2.kindermorgan.com/Documents/TGP/TGP\\_Map\\_Zone\\_L.pdf#def](https://pipeline2.kindermorgan.com/Documents/TGP/TGP_Map_Zone_L.pdf#def)  
[https://pipeline2.kindermorgan.com/Documents/TGP/TGP\\_Map\\_Zone\\_1.pdf#def](https://pipeline2.kindermorgan.com/Documents/TGP/TGP_Map_Zone_1.pdf#def)  
[https://pipeline2.kindermorgan.com/Documents/TGP/TGP\\_Map\\_Zone\\_2.pdf#def](https://pipeline2.kindermorgan.com/Documents/TGP/TGP_Map_Zone_2.pdf#def)

The Atmos Energy contractual receipt and delivery zones for Tennessee Gas Pipeline are indicated on Attachment 2 to the Company's response to Staff DR No. 3-02, in Excel columns E and F for receipts, and columns P and Q for deliveries. Receipt points with a zone indicator L/1 are physically located in zone L but demand is priced at the zone 1 receipt path rate.

**ATTACHMENT:**

Staff PH\_1-03\_Att1 - Pipeline Maps.pdf

Respondent: Brannon C. Taylor

PIPELINES	OPERATOR NAME	METER	LOC NAME	IND	PIPE SEG	RD	ZN	CT PR	PL
ACADIAN GAS PIPELINE SYSTEM	9194	ACADIAN - BARDIS	MAINLINE PIPELINE	R	SL	BARDIS	LA		
ANR PIPELINE	9002	ANR-SALAUPTERS	MAINLINE PIPELINE	D	1	WYOSTER	AR		
ANR PIPELINE	9003	ANR-BURDETTE	MAINLINE PIPELINE	D	1G	WASHINGTON	MS		
ENABLE MISSISSIPPI RIVER TRANS	9799	MRT-BALD KNOB	FAYETTEVILLE	D	1F	WHITE	AR		
ENABLE GAS TRANSMISSION LLC	9030	ENABLE-PERRYVILLE	MAINLINE PIPELINE	R	1	DUCHICHA	LA		
ENABLE GAS TRANSMISSION LLC	9158	ENABLE-SEARCY	FAYETTEVILLE	R	1	WHITE	AR		
ENABLE GAS TRANSMISSION LLC	9185	ENABLE-BOSCO	MAINLINE PIPELINE	R	1	DUCHICHA	LA		
ENABLE GAS TRANSMISSION LLC	9393	ENABLE-HELENA	SOUTH	B	1	PHILLIPS	AR		
COLUMBIA GULF TRANS	1715	LEBANON-COLUMBIA GAS	MAINLINE PIPELINE	D	4	WARREN	OH		
COLUMBIA GULF TRANS	9519	COLUMBIA GULF-ISOLA	GREENVILLE	D	1G	HUMPHREYS	MS		
DOMINION TRANSMISSION INC	1247	LEBANON-DOMINION	MAINLINE PIPELINE	D	4	WARREN	OH		
DOMINION TRANSMISSION INC	9247	LEBANON-DOMINION RECEIPT	MAINLINE PIPELINE	D	4	WARREN	OH		
ETC TIGER PIPELINE	9184	ETC TIGER-BOSCO	MAINLINE PIPELINE	R	1	DUCHICHA	LA		
FAYETTEVILLE EXPRESS PIPELINE	9161	FEF-LULA	MAINLINE PIPELINE	R	1	COAHOMA	MS		
FLORIDA GAS	9040	FLORIDA	MAINLINE PIPELINE	R	1	ACADIA	LA		
GULF CROSSING PIPELINE	9557	GULF CROSSING-STERLINGTON	MAINLINE PIPELINE	R	1	DUCHICHA	LA		
GULF SOUTH PIPELINE CO	8758	GULF SOUTH-PATOUTVILLE	SOUTHEAST	D	SL	IBERIA	LA		
GULF SOUTH PIPELINE CO	8760	GULF SOUTH-CONWAY	MAINLINE PIPELINE	R	1	DUCHICHA	LA		
GULF SOUTH PIPELINE CO	9192	GULF SOUTH-HAUGHTON	NORTH LOUISIANA	R	1	BOSSIER	LA		
GULF SOUTH PIPELINE CO	9473	GULF SOUTH-CHACANOLA	SOUTHEAST	D	SL	LAFOURCHE	LA		
GULF SOUTH PIPELINE CO	9474	GULF SOUTH-IOWA	WEST	D	SL	CALCASIEU	LA		
GULF SOUTH PIPELINE CO	9493	GULF SOUTH-SOUTH GIBSON	SOUTHEAST	D	SL	TERRIBONNE	LA		
GULF SOUTH PIPELINE CO	9430	GULF SOUTH-BOSCO	MAINLINE PIPELINE	B	1	DUCHICHA	LA		
GULF SOUTH PIPELINE CO	9564	GULF SOUTH-KOSCI	GREENVILLE	D	1G	ATTALA	MS		
KINDER MORGAN LP	9915	KINDER MORGAN SOU EUENCE	SOUTHEAST	B	SL	ACADIA	LA		
MIDCONTINENT EXPRESS PIPELINE	9009	MIDCONTINENT-PERRYVILLE	MAINLINE PIPELINE	R	1	DUCHICHA	LA		
MIDWESTERN	8073	MIDWESTERN-WHITEVILLE	MAINLINE PIPELINE	R	3	DAVENS	KY		
MIDWESTERN	8085	MIDWESTERN-CANELL (DE)	SLT/ST/MONTEZUMA MKT LAT	D	3	KNOX	IN		
NAUTILUS PIPELINE COMPANY	9544	NAUTILUS-GARDEN CITY	SOUTHEAST	R	SL	ST MARY	LA		
NGPL	9163	NGPL-BALD KNOB	FAYETTEVILLE	D	1F	WHITE	AR		
NGPL	9446	LOWRY	SOUTHWEST	R	1F	CANEON	LA		
ODARK	9516	ODARK-GRANDVIEW	FAYETTEVILLE	R	1F	CONWAY	AR		
PANHANDLE EASTERN	9589	PEP-MONTEZUMA	SLT/ST/MONTEZUMA MKT LAT	R	3	PARKE	IN		
ROCKIES EXPRESS PIPELINE LLC	9244	FRANKLIN - REX	MAINLINE PIPELINE	R	1	JOHNSON	MS		
ROCKIES EXPRESS PIPELINE LLC	9045	LEBANON-REX	MAINLINE PIPELINE	R	4	WARREN	OH		
SABINE PIPELINE LLC	2790	HENRY-HUB	SOUTHEAST	B	SL	VERMILION	LA		
SEA ROBIN	9460	SEA ROBIN-ERATH	SOUTHEAST	R	SL	VERMILION	LA		
SOUTHERN NATURAL	9529	SONAT-KOSCIUSKO	GREENVILLE	D	1G	ATTALA	MS		
TALLGRASS	9246	TALLGRASS-LEBANON	MAINLINE PIPELINE	R	4	WARREN	OH		
TENNESSEE GAS	2764	MITCHELLVILLE (PORTLAND)	SLT/ST/BOWL GREEN MKT LAT	R	3	SUMNER	TN		
TENNESSEE GAS	9500	TENNESSEE-GREENVILLE	GREENVILLE	D	1G	WASHINGTON	MS		
TENNESSEE GAS	9505	TENNESSEE-SOLA	GREENVILLE	D	1G	HUMPHREYS	MS		
TEXAS EASTERN TRANSMISSION	9858	TEXAS EASTERN-LEBANON	MAINLINE PIPELINE	R	4	WARREN	OH		
TEXAS EASTERN TRANSMISSION	9859	TETCO-LEBANON	MAINLINE PIPELINE	R	4	WARREN	OH		
TEXAS EASTERN TRANSMISSION	2757	TEXAS EASTERN SHARON	NORTH LOUISIANA	R	1	CLABORNE	LA		
TEXAS EASTERN TRANSMISSION	9533	TETCO-EVANSVILLE	MAINLINE PIPELINE	D	1F	WHITE	AR		
TEXAS EASTERN TRANSMISSION	9533	TETCO-BALD KNOB	FAYETTEVILLE	D	1F	WHITE	AR		
TEXAS EASTERN TRANSMISSION	9560	TETCO-KOSCIUSKO	GREENVILLE	D	1G	ATTALA	MS		
TPL	8486	MANOUL	MAINLINE PIPELINE	D	SL	EVANGELINE	LA		
TPL	9481	TRANSCO-THIBODAUX	SOUTHEAST	D	SL	LAFOURCHE	LA		
TRUNKLINE GAS COMPANY	8124	DYERSBURG	MAINLINE PIPELINE	B	2	DYER	TN		
TRUNKLINE GAS COMPANY	9475	TRUNKLINE-IOWA	WEST	R	SL	CALCASIEU	LA		
TRUNKLINE GAS COMPANY	9504	TRUNKLINE-BURDETTE	GREENVILLE	D	1G	WASHINGTON	MS		
TRUNKLINE GAS COMPANY	9829	TRUNKLINE-CENTERVILLE	SOUTHEAST	R	SL	ST MARY	LA		
CROSSTEX LOG, LLC	8059	FRANKLIN	SOUTHEAST	D	SL	ST MARY	LA		
CRS LOG, LLC	9084	BAYOU POMPEY	MAINLINE PIPELINE	D	1	HARDIST	LA		
PANENERGY LOUISIANA	9535	DCP-A.H.-PERRYVILLE	MAINLINE PIPELINE	R	1	DUCHICHA	LA		
REGENCY INTRASTATE GAS	9490	REGENCY-RIVERTON	MAINLINE PIPELINE	R	1	CALDWELL	LA		

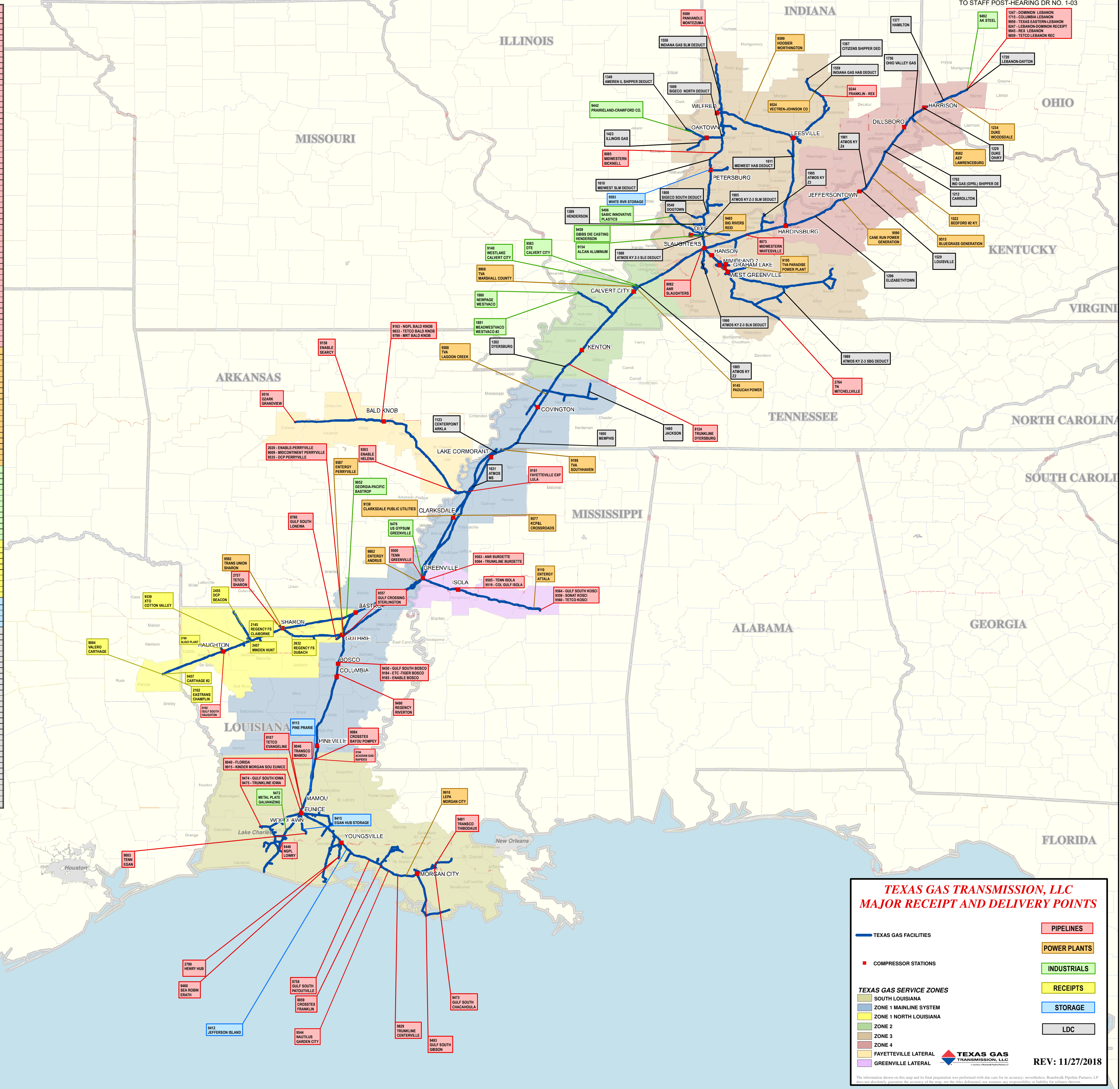
POWER PLANTS	GENERATOR NAME	PLANT	IND	TYPE	RD	ZN	CT PR	PL	
LAURENCEBURG POWER PLANT	9582	LAURENCEBURG POWER PLANT	MAINLINE PIPELINE	D	4	DEARBORN	IN		
BIG RIVERS-EID	9465	BIG RIVERS-EID	SLT/ST/EVANSVILLE MKT LAT	D	3	WEBSTER	IN		
BLUEGRASS GENERATION CO	9515	BLUEGRASS GENERATION	MAINLINE PIPELINE	D	4	DODHAM	KY		
CLARKSDALE PUBLIC UTIL	1234	WOODSDALE	MAINLINE PIPELINE	D	4	BUTLER	OH		
ENTERGY MISSISSIPPI	9587	ENTERGY-PERRYVILLE	MAINLINE PIPELINE	D	1	DUCHICHA	LA		
ENTERGY MISSISSIPPI	9587	ENTERGY-ATTALA	GREENVILLE	D	1G	ATTALA	MS		
ENTERGY MISSISSIPPI	9582	ENTERGY-ANDRUS PLANT	MAINLINE PIPELINE	D	1	WASHINGTON	MS		
HOOVER ENERGY RURAL ELECTRIC	9299	WORTHINGTON GENERATION	MAINLINE PIPELINE	D	3	GREENE	IN		
INDIANA GAS COMPANY INC	9524	VECTREN-JOHNSON CO	HARDINSBURG/INDY MKT LAT	R	1	JOHNSON	MS		
INDIANA GAS COMPANY INC	9577	KCTC-CROSSROADS	MAINLINE PIPELINE	D	1	COAHOMA	MS		
KENTUCKY UTILITIES CO	1522	BEERFORD #2 KY	MAINLINE PIPELINE	D	4	TRIMBLE	KY		
KENTUCKY UTILITIES CO	9590	CANE RUN POWER GENERATION	MAINLINE PIPELINE	D	1	JEFFERSON	KY		
LEPA	7903	LEPA - MORGAN CITY	SOUTHEAST	D	SL	VERMILION	LA		
PAIDUCAN POWER SYSTEM	9145	PAIDUCAN POWER	MAINLINE PIPELINE	D	2	MARSHALL	KY		
TENNESSEE VALLEY	9108	TVA-SOUTHAVEN	MAINLINE PIPELINE	D	1	DESOTO	MS		
TENNESSEE VALLEY	9508	TVA-JACKSON CREEK	MAINLINE PIPELINE	D	2	LAUDERDALE	MS		
TENNESSEE VALLEY	9508	TVA-MARSHALL COUNTY	MAINLINE PIPELINE	D	2	MARSHALL	KY		
TENNESSEE VALLEY	9195	TVA-PARADISE POWER PLANT	WESTERN KY LATERAL	D	1	MULLENBERG	KY		
TRANS UNION-STARON	9592	TRANS UNION-STARON	MAINLINE PIPELINE	D	1	CLABORNE	LA		

INDUSTRIALS	INDUSTRIAL NAME	IND	TYPE	RD	ZN	CT PR	PL		
AK STEEL	9492	LEBANON-AK STEEL	MAINLINE PIPELINE	D	4	WARREN	OH		
ALCAN ALUMINUM	9154	ALCAN PRIMARY PRODUCTS	SLT/ST/EVANSVILLE MKT LAT	D	3	HENDERSON	KY		
DTE CALVERT CITY, LLC	9582	DTE CALVERT CITY	NORTH LOUISIANA	D	1	MOREHOUSE	LA		
GEORGIA PACIFIC	9052	GEORGIA PACIFIC/BASTROP	NORTH LOUISIANA	D	1	MOREHOUSE	LA		
GBBS DIE CASTING	9459	GBBS-HENDERSON	SLT/ST/EVANSVILLE MKT LAT	D	3	HENDERSON	KY		
ARC POWER CO CORPORATION	1881	WESTVACO #2	MAINLINE PIPELINE	D	1	BALLARD	MS		
METALPLATE GALVANIZING L.P.	9472	METALPLATE - GALVANIZING	SOUTH	D	SL	JEFFERSON	LA		
NEWPAGE	1880	WESTVACO	MAINLINE PIPELINE	D	2	BALLARD	MS		
PHARRIAND-CRAWFORD CO.	9442	PHARRIAND-CRAWFORD CO.	SLT/ST/MONTEZUMA MKT LAT	D	3	CRAWFORD	LA		
SABIC INNOVATIVE PLASTICS	9496	SABIC INNOVATIVE PLASTICS	SOUTHERN IN LATERAL	D	1	POSEY	IN		
U.S. GYPSUM	9476	U.S. GYPSUM GREENVILLE	MAINLINE PIPELINE	D	1	WASHINGTON	MS		
WESTLAKE-CALVERT CITY	9140	WESTLAKE-CALVERT CITY	MAINLINE PIPELINE	D	2	MARSHALL	KY		

RECEIPTS	OPERATOR NAME	METER	LOC NAME	IND	TYPE	RD	ZN	CT PR	PL
ENABLE MIDSTREAM PARTNERS LP	2760	SUGO PLANT	BARDISDALE FIELD	R	1	BOSSIER	LA		
EAS TRANS LIMITED	2102	EASTRANS-CHAMPLIN	NORTH LOUISIANA	R	1	PANOLA	TX		
DCP MIDSTREAM	3655	DCP-A.H.-SEACON	NORTH LOUISIANA	R	1	WEBSTER	LA		
ENTERPRISE TEXAS	3884	VALERO-CARTHAGE	NORTH LOUISIANA	R	1	PANOLA	TX		
MARLIN MIDSTREAM, LLC	9457	CARTHAGE #2	NORTH LOUISIANA	R	1	PANOLA	TX		
REGENCY FIELD SERVICES	2145	CLABORNE	NORTH LOUISIANA	R	1	CLABORNE	LA		
REGENCY FIELD SERVICES	2632	BURCH	NORTH LOUISIANA	R	1	UNION	LA		
VERNON E. FAULKNER	2457	MINDEN-HUNT	NORTH LOUISIANA	R	1	WEBSTER	LA		
STO ENERGY, INC	9539	COTTON VALLEY	SHARON/CARTHAGE	R	1	WEBSTER	LA		

STORAGE	OPERATOR NAME	METER	LOC NAME	IND	TYPE	RD	ZN	CT PR	PL
EGAN HUB STORAGE	9415	EGAN HUB STORAGE	SOUTH	B	SL	ACADIA	LA		
JEFFERSON ISLAND STORAGE	9412	JEFFERSON ISLAND STORAGE	SOUTHEAST	B	SL	IBERIA	LA		
PINE PRARIE ENERGY CTR	9115	PINE PRARIE-EASTON	MAINLINE PIPELINE	R	SL	EVANGELINE	LA		
SASCOOP ENERGY SERVICES	1093	WHITE BUS STORAGE	SLT/ST/MONTEZUMA MKT LAT	B	1	PHF	IN		

LDC	OPERATOR NAME	METER	LOC NAME	IND	TYPE	RD	ZN	CT PR	PL
AMEREN ILLINOIS COMPANY	1349	AMEREN ILL SHIPPER DEDUCT	SLT/ST/MONTEZUMA MKT LAT	D	3	CRAWFORD	LA		
ATMOS ENERGY KENTUCKY	1985	ATMOS KY 2-3 SHIPPER DED	MAINLINE PIPELINE	D	2	MARSHALL	KY		
ATMOS ENERGY KENTUCKY	1981	ATMOS KY 2-3 SHIPPER DED	MAINLINE PIPELINE	D	4	JEFFERSON	KY		
ATMOS ENERGY KENTUCKY	1985	ATMOS KY 2-3 SLM DEDUCT	SLT/ST/MONTEZUMA MKT LAT	D	3	UNION	LA		
ATMOS ENERGY KENTUCKY	1988	ATMOS KY 2-3 SLM DEDUCT	SLT/ST/EVANSVILLE MKT LAT	D	3	UNION	LA		
ATMOS ENERGY KENTUCKY	1989	ATMOS KY 2-3 SLM DEDUCT	SLT/ST/MONTEZUMA MKT LAT	D	3	WARREN	OH		
ATMOS ENERGY KENTUCKY	1990	ATMOS KY 2-3 SLM DEDUCT	SLT/ST/NORTONVILLE MKT LAT	D	3	UNION	LA		
ATMOS ENERGY KENTUCKY	1995	ATMOS KY 2-3 MAINLINE DED	SLT/ST/MONTEZUMA MKT LAT	D	3	HANCOCK	KY		
ATMOS ENERGY MISSISSIPPI	1631	ATMOS MS SHIPPER DEDUCT	MAINLINE PIPELINE	D	1	WASHINGTON	MS		
CARROLLTON CITY OF	1212	CARROLLTON SHIPPER DED	MAINLINE PIPELINE	D	4	CARROLL	LA		
CENTERPOINT ENERGY ARKLA	1123	ARK LA SHIPPER DEDUCT	MAINLINE PIPELINE	D	1	DESOTO	MS		
CITIZENS GAS AND COOP	1367	CITIZENS SHIPPER DED	HARDINSBURG/INDY MKT LAT	R	1	JOHNSON	MS		
DUKE ENERGY OHIO/KENTUCKY	1229	DUKE ENERGY OH SHIPPER DE	MAINLINE PIPELINE	D	4	BUTLER	OH		
DYERSBURG, CITY OF	1282	DYERSBURG SHIPPER DEDU	MAINLINE PIPELINE	D	2	DYER	TN		
ELIZABETHTOWN, CITY OF	1286	E TOWN SHIPPER DEDUCT	MAINLINE PIPELINE	D	4	BRADY	KY		
HAMILTON, CITY OF	1377	HAMILTON SHIPPER DEDUCT	MAINLINE PIPELINE	D	4	BUTLER	OH		
HENDERSON, CITY OF	1389	HENDERSON SHIPPER DEDU	SLT/ST/EVANSVILLE MKT LAT	D	3	HENDERSON	KY		
ILLINOIS GAS COMPANY	1423	ILLINOIS SHIPPER DEDUCT	SLT/ST/MONTEZUMA MKT LAT	D	3	LAWRENCE	IL		
INDIANA GAS COMPANY INC	1528	INDIANA GAS SLM DEDUCT	SLT/ST/MONTEZUMA MKT LAT	D	3	WIGO	IN		
INDIANA GAS COMPANY INC	1559	INDIANA GAS HAB DEDUCT	HARDINSBURG/INDY MKT LAT	D	3	LAWRENCE	IN		
INDIANA GAS COMPANY INC	1702	IND GAS (OPRL) SHIPPER DE	MAINLINE PIPELINE	D	4	SWITZERLAND	IN		
JACKSON ENERGY AUTHORITY	1460	JACKSON SHIPPER DEDUCT	MAINLINE PIPELINE	D	1	MADISON	TN		
LOUISVILLE GAS AND ELECTRIC	1529	LOUISVILLE SHIPPER DED	MAINLINE PIPELINE	D	4	JEFFERSON	KY		
MIDWEST NATURAL GAS CORP	1610	MIDWEST SLM DEDUCT	SLT/ST/MONTEZUMA MKT LAT	D	3	KNOX	IN		
MIDWEST NATURAL	1611	MIDWEST HAB DEDUCT	HARDINSBURG/INDY MKT LAT	D	3	CHANCE	IN		
MEMPHIS LIGHT, GAS, AND WATER	1600	MEMPHIS SHIPPER DEDUCT	MAINLINE PIPELINE	D	1	SHELBY	IN		
OHIO VALLEY GAS CORP	1756	OHIO CORP SHIPPER DEDU	MAINLINE PIPELINE	D	4	DEARBORN	IN		
SIGECO	1808	SIGECO SOUTH DEDUCT	SLT/ST/MONTEZUMA MKT LAT	D	3	VANDERBURG	IN		
VECTREN ENERGY DELIVERY - OHIO	1720	LEBANON- DAYTON	MAINLINE PIPELINE	D	4	WARREN	OH		
SIGECO	1809	SIGECO NORTH DEDUCT	SLT/ST/MONTEZUMA MKT LAT	D	3	KNOX	IN		
SIGECO	9540	DOGWOOD	SLT/ST/MONTEZUMA MKT LAT	D	3	VANDERBURG	IN		



**TEXAS GAS TRANSMISSION, LLC  
MAJOR RECEIPT AND DELIVERY POINTS**

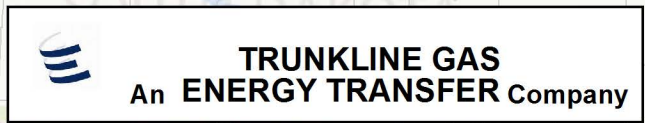
- TEXAS GAS FACILITIES
- PIPELINES
- POWER PLANTS
- COMPRESSOR STATIONS
- INDUSTRIALS
- RECEIPTS
- STORAGE
- LDC

**TEXAS GAS SERVICE ZONES**

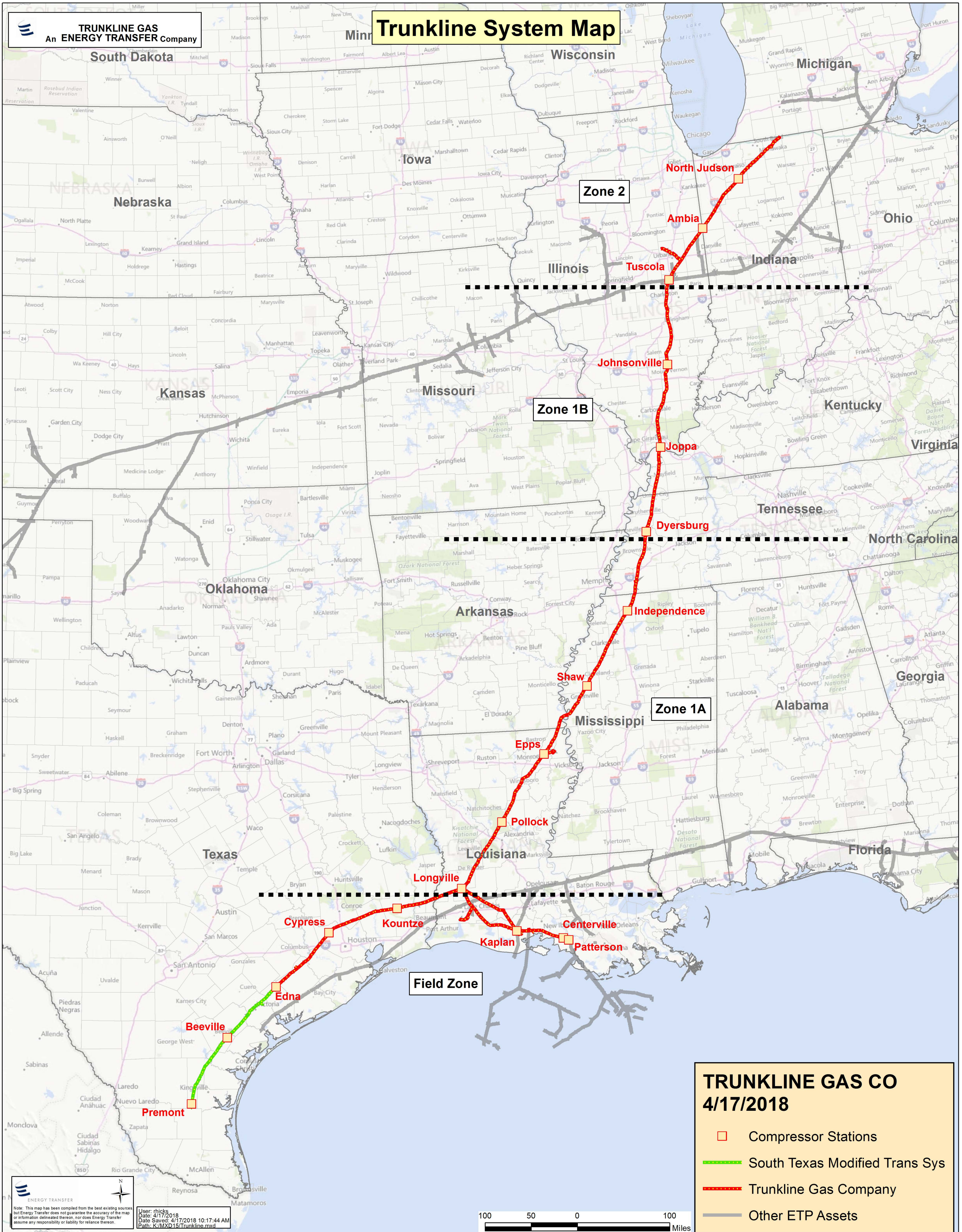
- SOUTH LOUISIANA
- ZONE 1 MAINLINE SYSTEM
- ZONE 1 NORTH LOUISIANA
- ZONE 2
- ZONE 3
- ZONE 4
- FAYETTEVILLE LATERAL
- GREENVILLE LATERAL

TEXAS GAS TRANSMISSION, LLC  
REV: 11/27/2018

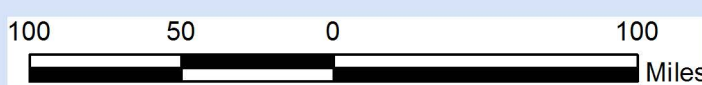
The information shown on this map and its final preparation was performed with due care for its accuracy; nevertheless, Boardwalk Pipeline Partners, LP does not absolutely guarantee the accuracy of the map nor the data contained therein and assumes no responsibility or liability for reliance thereon.



# Trunkline System Map

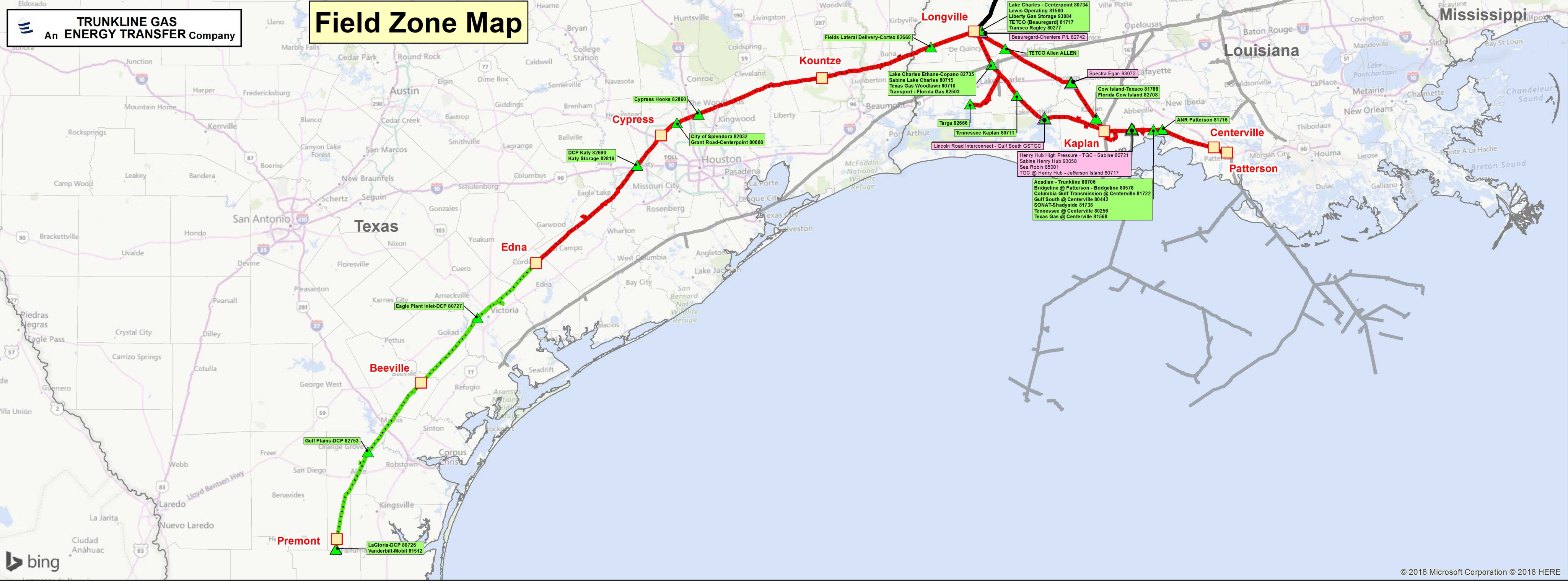


Note: This map has been compiled from the best existing sources but Energy Transfer does not guarantee the accuracy of the map or information delineated thereon, nor does Energy Transfer assume any responsibility or liability for reliance thereon.  
User: ricks  
Date: 4/17/2018  
Date Saved: 4/17/2018 10:17:44 AM  
Path: K:\MXD18\Trunkline.mxd

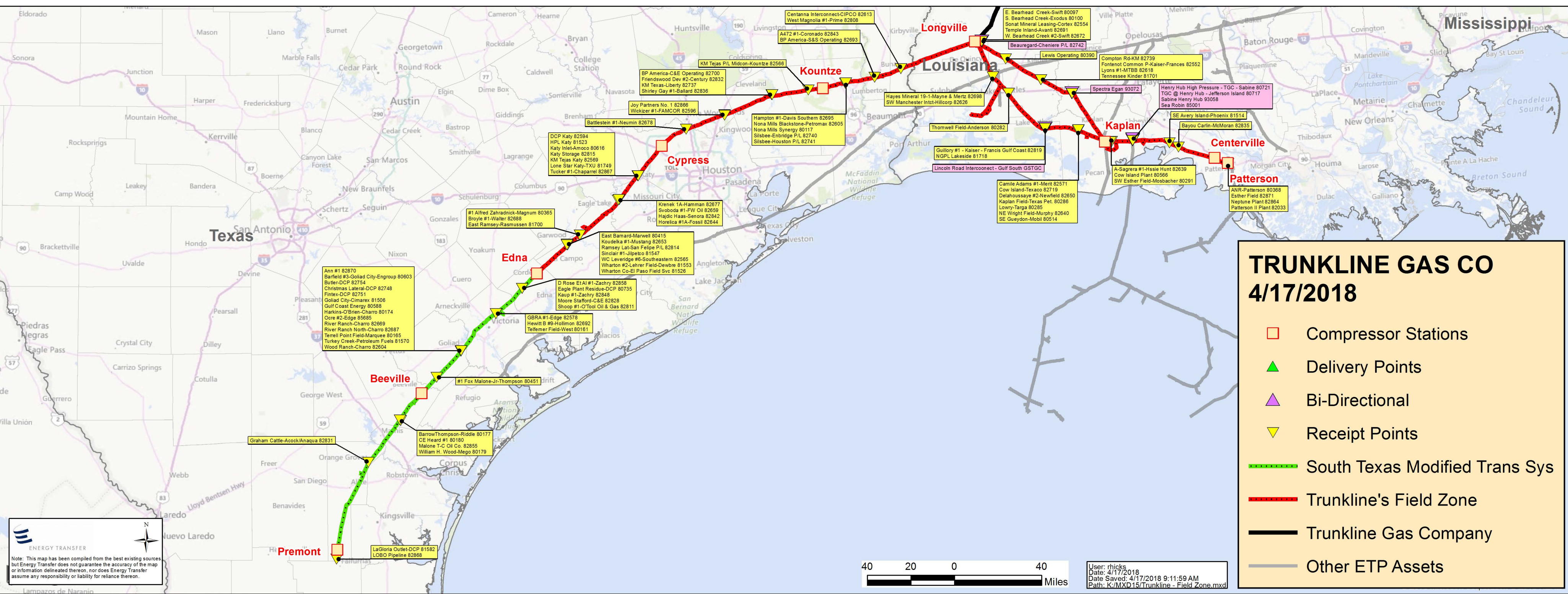


**TRUNKLINE GAS CO**  
**4/17/2018**

- Compressor Stations
- South Texas Modified Trans Sys
- Trunkline Gas Company
- Other ETP Assets



© 2018 Microsoft Corporation © 2018 HERE

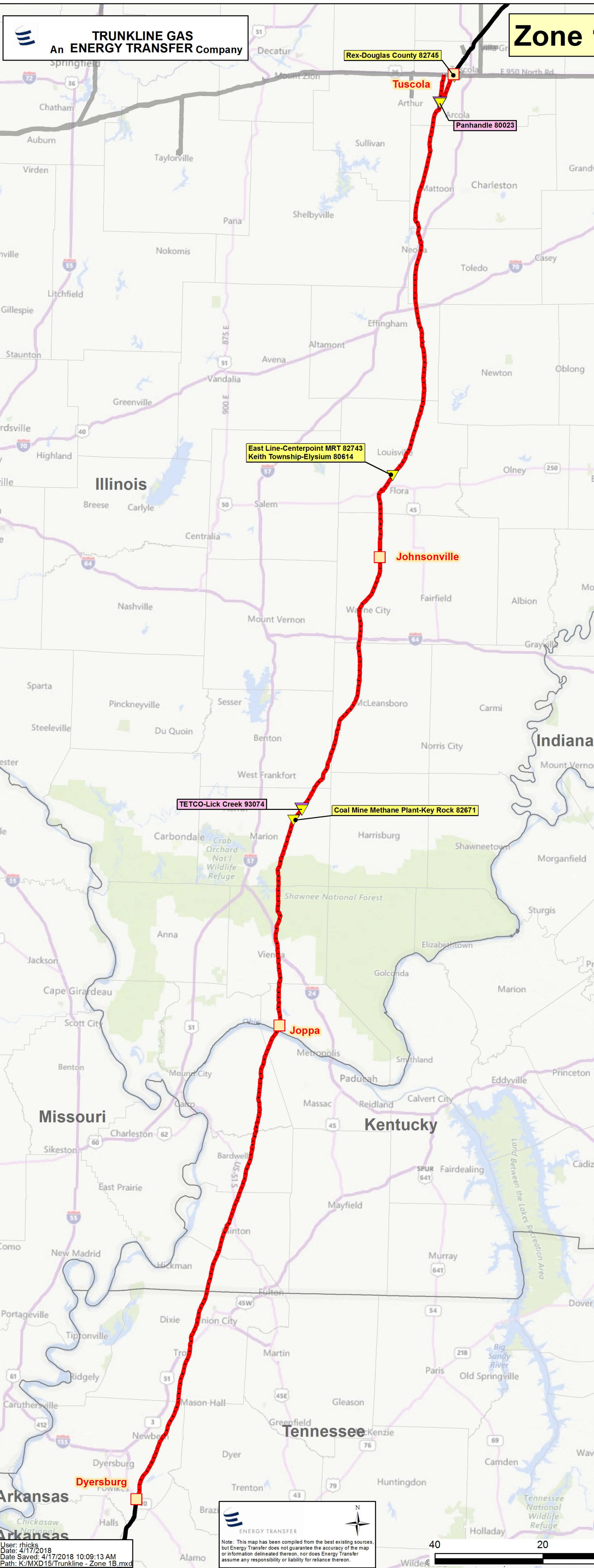


**TRUNKLINE GAS CO**  
**4/17/2018**

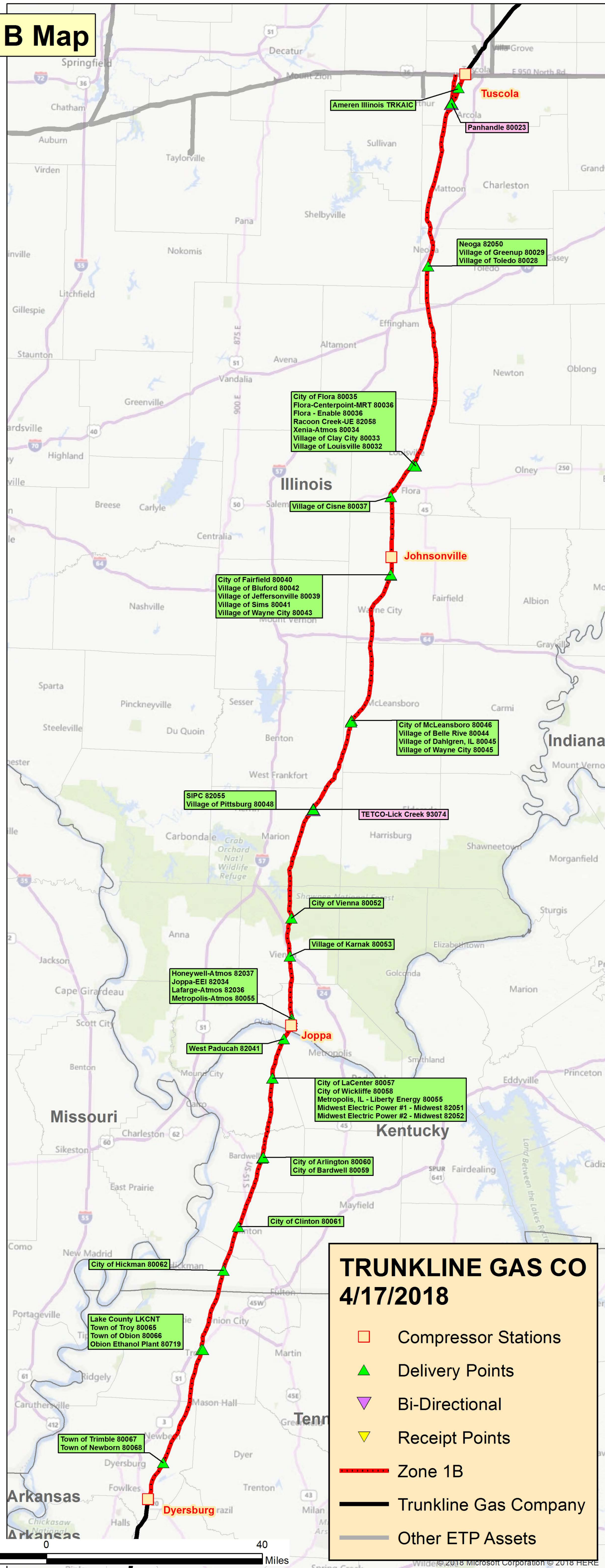
- Compressor Stations
- ▲ Delivery Points
- ▲ Bi-Directional
- ▼ Receipt Points
- - - South Texas Modified Trans Sys
- Trunkline's Field Zone
- Trunkline Gas Company
- Other ETP Assets

ENERGY TRANSFER  
 Note: This map has been compiled from the best existing sources but Energy Transfer does not guarantee the accuracy of the map or information delineated thereon, nor does Energy Transfer assume any responsibility or liability for reliance thereon.

40 20 0 40  
 Miles  
 User: ricks  
 Date: 4/17/2018  
 Date Saved: 4/17/2018 9:11:59 AM  
 Path: K:\MXD15\Trunkline - Field Zone.mxd



# Zone 1B Map



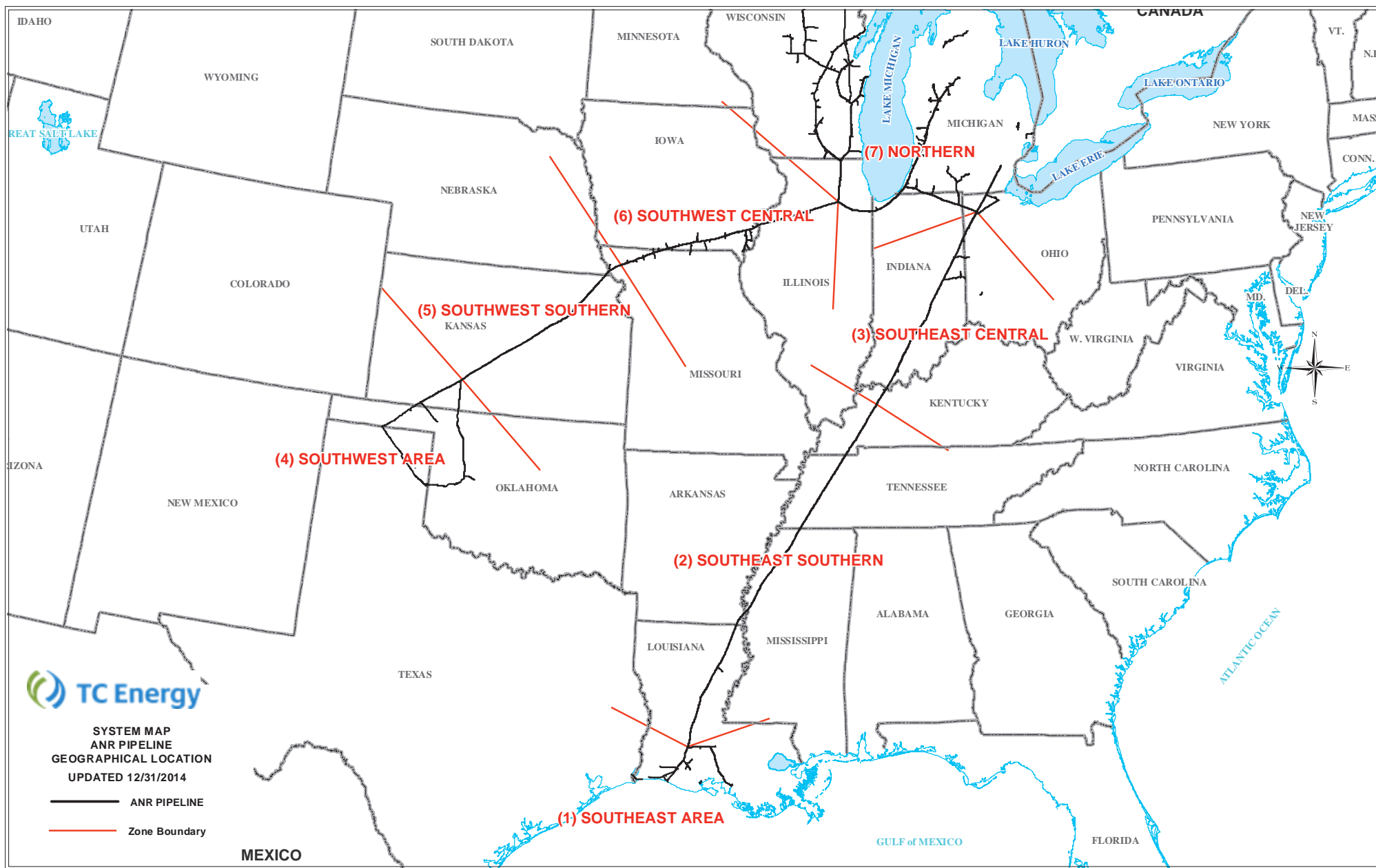
**TRUNKLINE GAS CO**  
**4/17/2018**

- Compressor Stations
- ▲ Delivery Points
- ▼ Bi-Directional
- ▼ Receipt Points
- Zone 1B
- Trunkline Gas Company
- Other ETP Assets

User: thicks  
 Date: 4/17/2018  
 Date Saved: 4/17/2018 10:09:13 AM  
 Path: K:\MXD19\Trunkline - Zone 1B.mxd

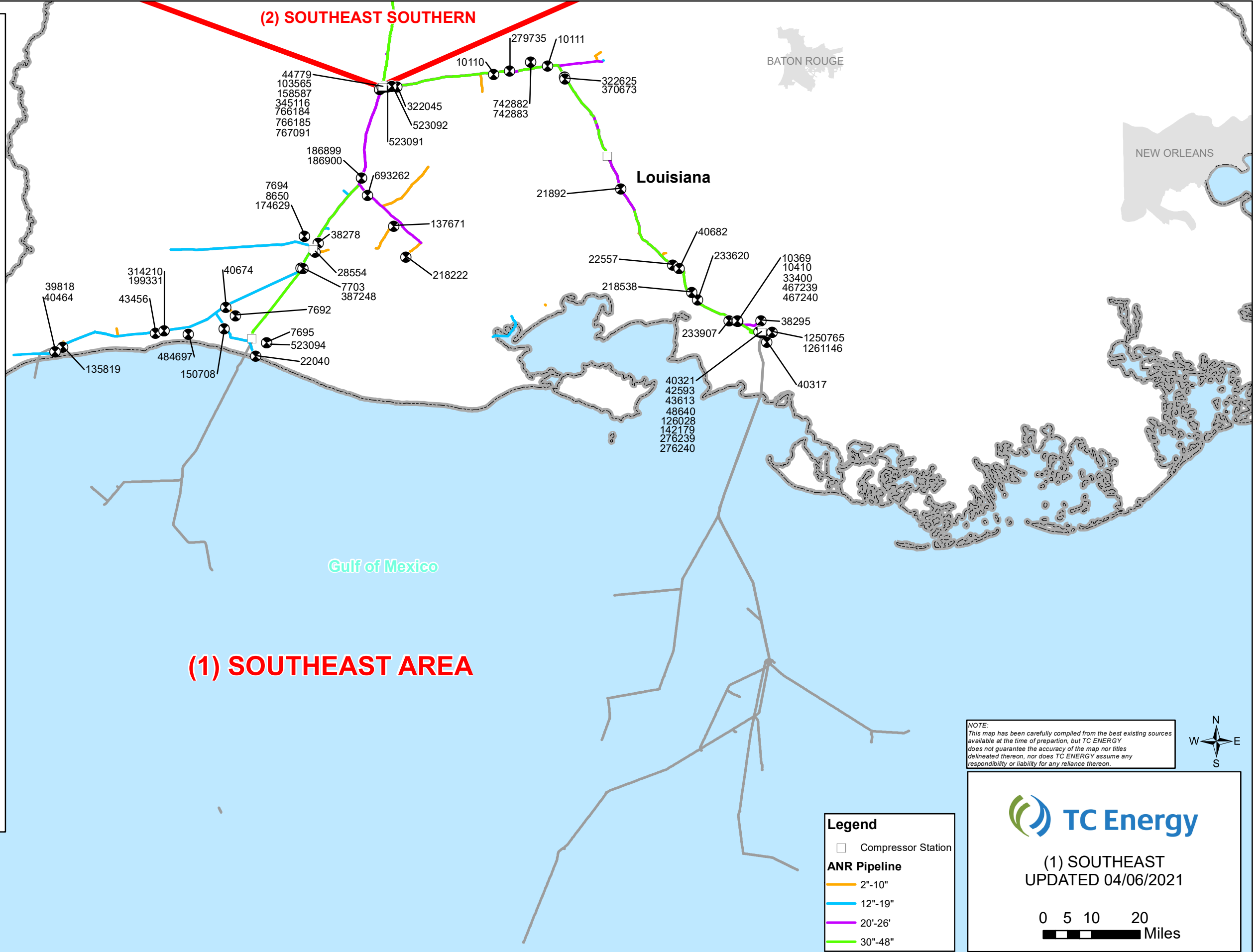
**ENERGY TRANSFER**  
 Note: This map has been compiled from the best existing sources, but Energy Transfer does not guarantee the accuracy of the map or information delineated thereon, nor does Energy Transfer assume any responsibility or liability for reliance thereon.







DRN	METER NAME
767091	ACADIA 2 INT
523091	ACADIA 2 INT (DEL)
322045	ACADIA POWER PLANT
39818	BARRACUDA-ANRPL (CM)
742883	BOBCAT STORAGE (DEL)
742882	BOBCAT STORAGE (REC)
43456	CAMERON
10410	CENTERVILLE LA
7703	CHALKLEY/TENN
7692	CHENIERE PERDUE
38295	CYPRESS/AVALON
186899	EGAN (DELIVERY) INT
186900	EGAN (RECEIPT) INT
44779	EUNICE PLANT OUTLET
523092	FOURNENAT ROAD (DEL)
1260286	GARDEN CITY
1250765	GRAND CHENIER / ANR
7695	GRAND CHENIER/LRC
314210	HENRY ESTATE (BUYBACK)
199331	HENRY ESTATE INT
22040	HOG BAYOU NO 2
40682	JEANERETTE FIELD CDP
22557	JEANERETTE NO 2
40464	JOHNSON BAYOU/UTOS
150708	KINGS BAYOU NO 2
174629	LAKE ARTHUR (DEL TO NGPL)
7694	LAKE ARTHUR (REC FR NGPL)
28554	LOWRY PLANT INLET
38278	LOWRY PLANT OUTLET
523094	MERMENTAU RIVER GCX
387248	MIAMI NO 1
40674	MIAMI NO D-1/ARCO
233907	NAUTILUS DHS INT
370673	OLIVER BENOIT 1 WELLS
10111	OPELOUSAS/CYPRUS PL
1261145	PATTERSON TERMINAL
43613	PATTERSON TO COL GULF
142179	PATTERSON TO LIG
40321	PATTERSON TO TGT-DRY
40317	PATTERSON/TRUNKLINE DEL
48640	PATTERSON/TRUNKLINE REC
279735	PECANIERE INT
766185	PINE PRAIRIE SOUTH DEL
766184	PINE PRAIRIE SOUTH REC
484697	PRAIRIE BEACH WC 3
137671	RICEVILLE COMMINGL FACIL
42593	RIVERWAY (TO BRIDGELINE)
158587	SE CDP GATH
345116	SE CDP TRANS
103565	SE HEADSTATION
467240	SHADYSIDE (TGP DUAL 12684) (BI 513051)
467239	SHADYSIDE (TGP DUAL 21033) (BI 523050)
276239	SHADYSIDE TGP
276240	SHADYSIDE TGP
10369	SHADYSIDE/SONAT (DEL)
33400	SHADYSIDE/SONAT (REC)
322625	ST LANDRY/FL INT
10110	ST LANDRY/TXEAST (DEL)
21892	ST. MARTINVILLE TO LRC
135819	STINGRAY INT
693262	SWEENEY HEIRS
218538	TECHE PLANT (CLECO)
233620	WEEKS ISLA/LIG PL
8650	WEST LAKE ARTHUR
218222	ZAUNBRECHER INT



**NOTE:**  
 This map has been carefully compiled from the best existing sources available at the time of preparation, but TC ENERGY does not guarantee the accuracy of the map nor titles delineated thereon, nor does TC ENERGY assume any responsibility or liability for any reliance thereon.



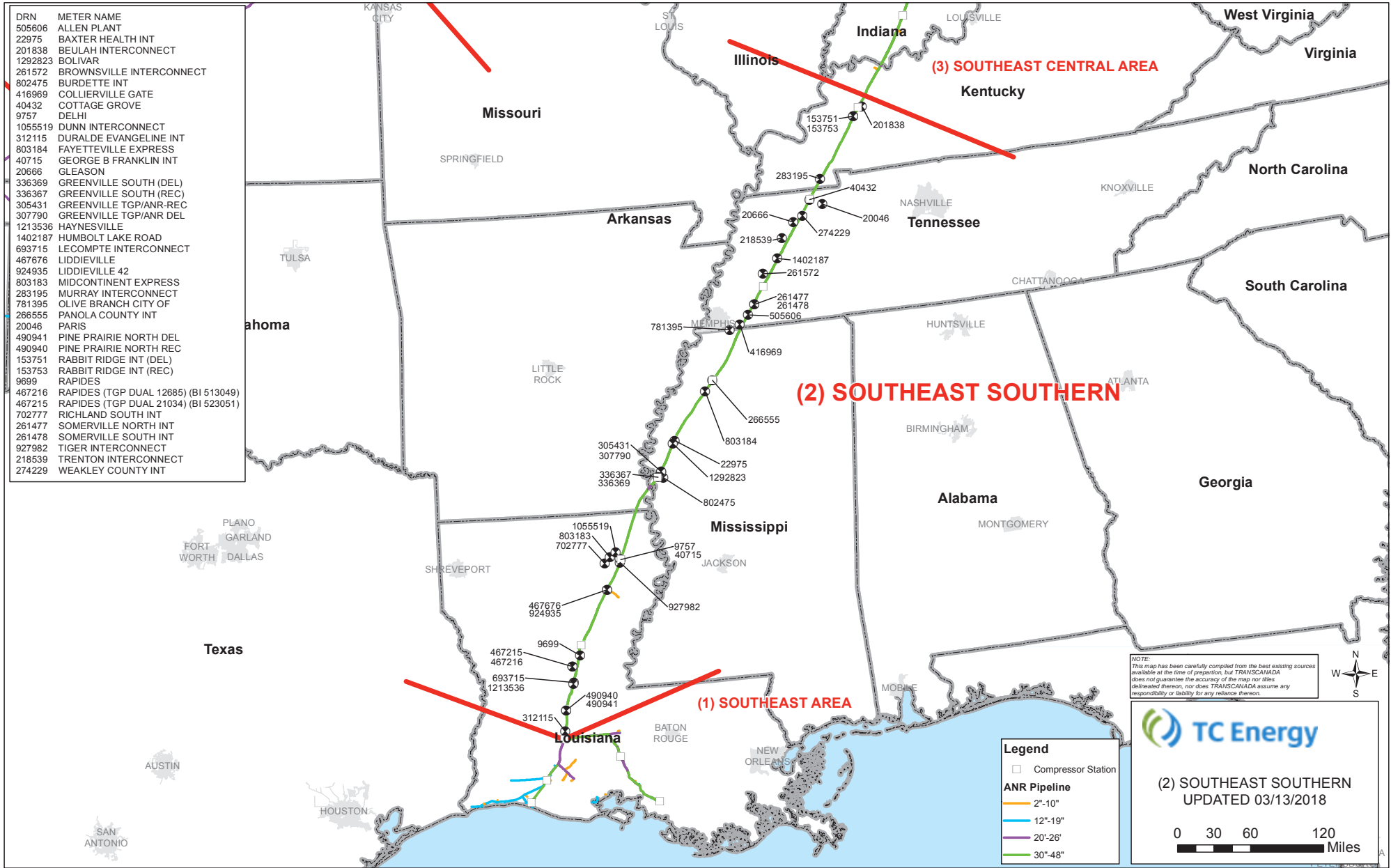
**Legend**

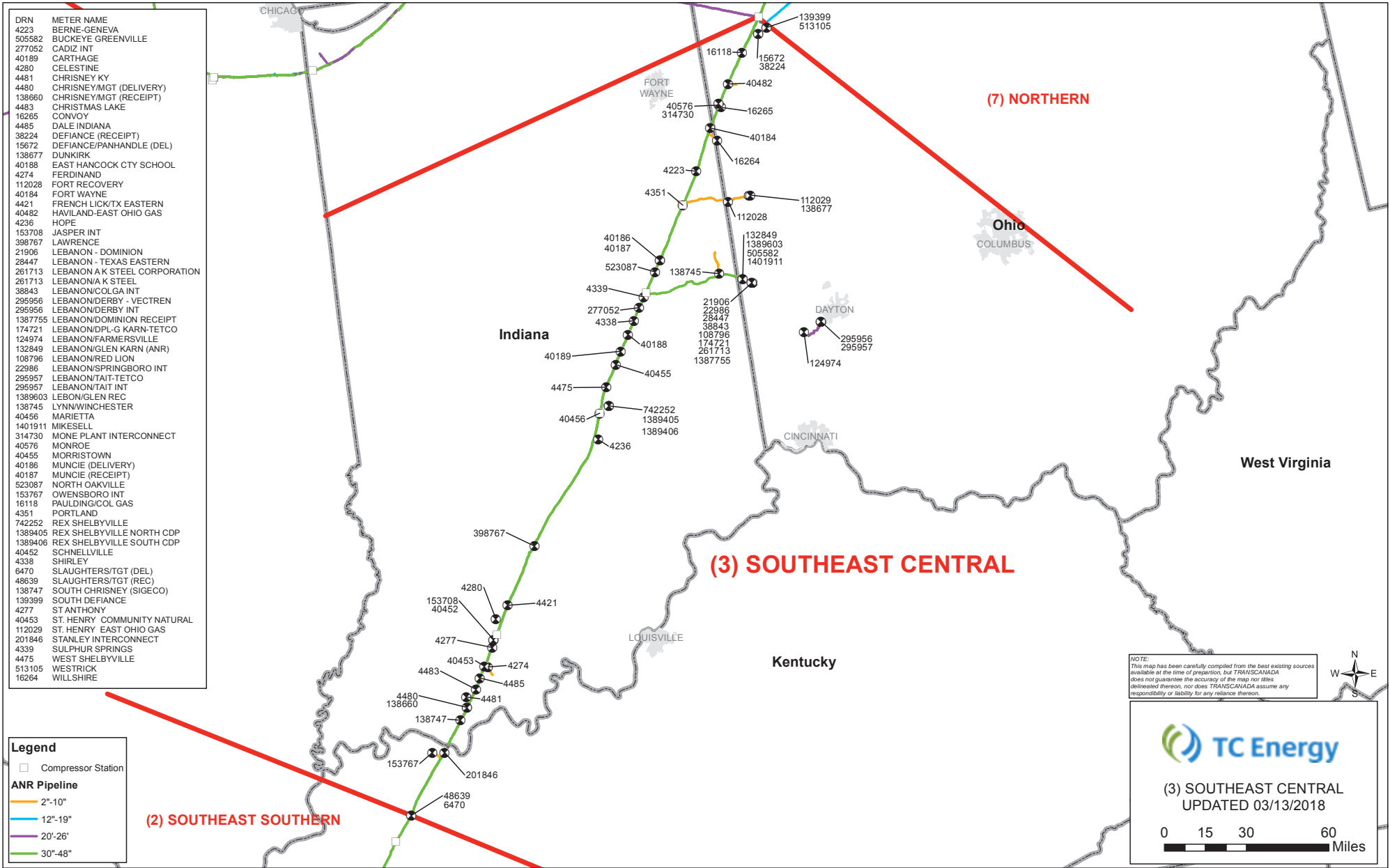
- Compressor Station
- ANR Pipeline**
  - 2"-10"
  - 12"-19"
  - 20"-26"
  - 30"-48"

**TC Energy**

(1) SOUTHEAST  
 UPDATED 04/06/2021

0 5 10 20  
 Miles





DRN	METER NAME
4223	BERNE-GENEVA
505582	BUCKEYE GREENVILLE
277052	CADIZ INT
40189	CARTHAGE
4280	CELESTINE
4481	CHRISNEY KY
4480	CHRISNEY/MGT (DELIVERY)
138660	CHRISNEY/MGT (RECEIPT)
4483	CHRISTMAS LAKE
16265	CONVOY
4485	DALE INDIANA
38224	DEFIANCE (RECEIPT)
15672	DEFIANCE/PANHANDLE (DEL)
138677	DUNKIRK
40188	EAST HANCOCK CTY SCHOOL
4274	FERDINAND
112028	FORT RECOVERY
40184	FORT WAYNE
4421	FRENCH LICK/TX EASTERN
40482	HAVILAND-EAST OHIO GAS
4236	HOPE
153708	JASPER INT
398767	LAWRENCE
21906	LEBANON - DOMINION
28447	LEBANON - TEXAS EASTERN
261713	LEBANON A K STEEL CORPORATION
261713	LEBANON A K STEEL
38843	LEBANON/COLA INT
295956	LEBANON/DERBY - VECTREN
295956	LEBANON/DERBY INT
1387755	LEBANON/DOMINION RECEIPT
174721	LEBANON/DPL-G KARN-TETCO
124974	LEBANON/FARMERSVILLE
132849	LEBANON/GLEN KARN (ANR)
108796	LEBANON/RED LION
22986	LEBANON/SPRINGBORO INT
295957	LEBANON/TAIT-TETCO
295957	LEBANON/TAIT INT
1389603	LEBANON/GLEN REC
138745	LYNNWINCHESTER
40456	MARIETTA
1401911	MIKESELL
314730	MONE PLANT INTERCONNECT
40576	MONROE
40455	MORRISTOWN
40186	MUNCIE (DELIVERY)
40187	MUNCIE (RECEIPT)
523087	NORTH OAKVILLE
153767	OWENSBORO INT
16118	PAULDING/COL GAS
4351	PORTLAND
742252	REX SHELBYVILLE
1389405	REX SHELBYVILLE NORTH CDP
1389406	REX SHELBYVILLE SOUTH CDP
40452	SCHNELLVILLE
4338	SHIRLEY
6470	SLAUGHTERS/TGT (DEL)
48639	SLAUGHTERS/TGT (REC)
138747	SOUTH CHRISNEY (SIGECO)
139399	SOUTH DEFIANCE
4277	ST ANTHONY
40453	ST. HENRY COMMUNITY NATURAL
112029	ST. HENRY EAST OHIO GAS
201846	STANLEY INTERCONNECT
4339	SULPHUR SPRINGS
4475	WEST SHELBYVILLE
513105	WESTRICK
16264	WILLSHIRE

**Legend**

□ Compressor Station

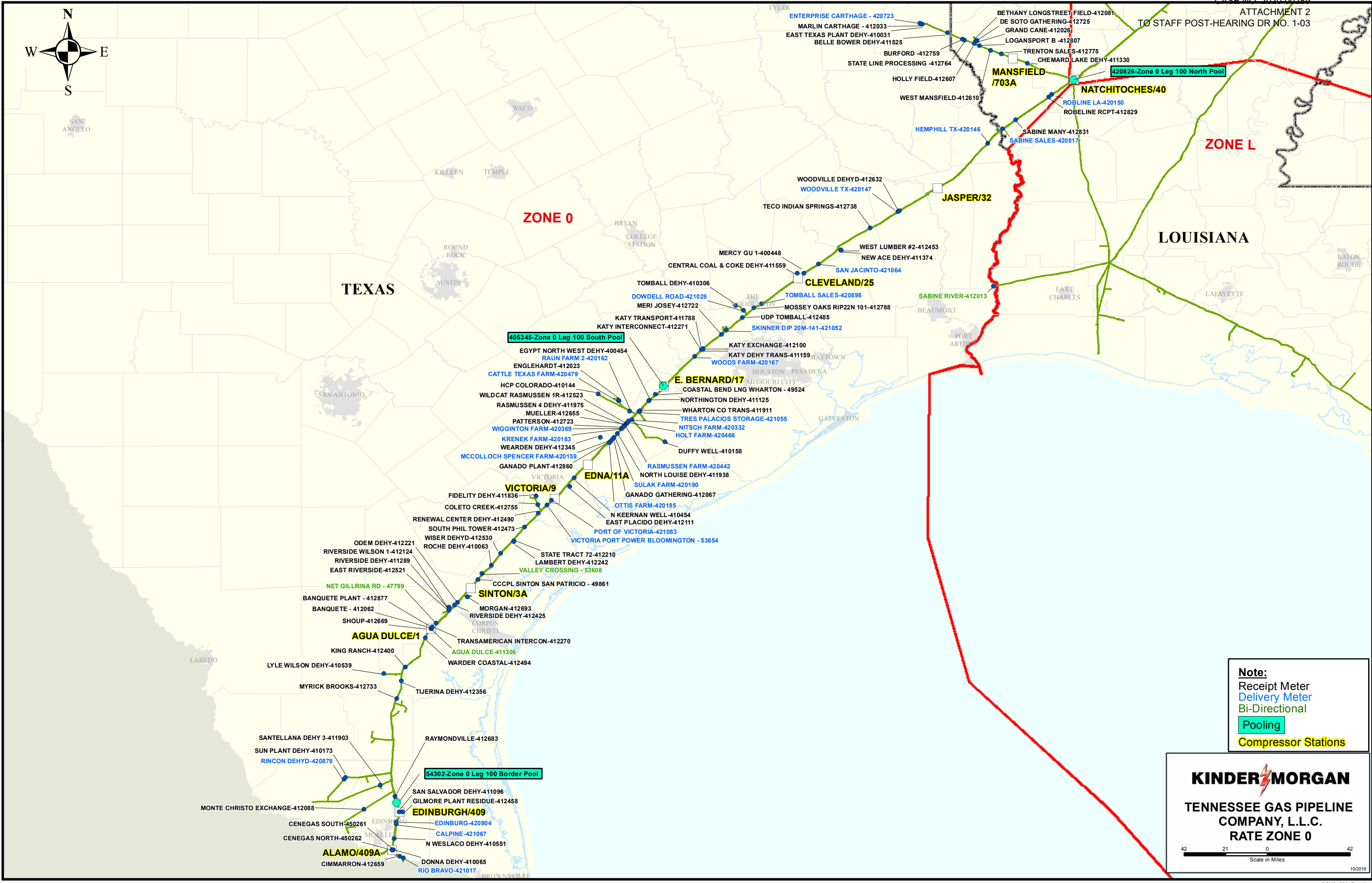
**ANR Pipeline**

- 2"-10"
- 12"-19"
- 20"-26"
- 30"-48"

NOTE: This map has been carefully compiled from the best existing sources available at the time of preparation, but TRANSCANADA does not guarantee the accuracy of the map nor files delineated thereon, nor does TRANSCANADA assume any responsibility or liability for any reliance thereon.

**(3) SOUTHEAST CENTRAL**  
 UPDATED 03/13/2018

0 15 30 60 Miles



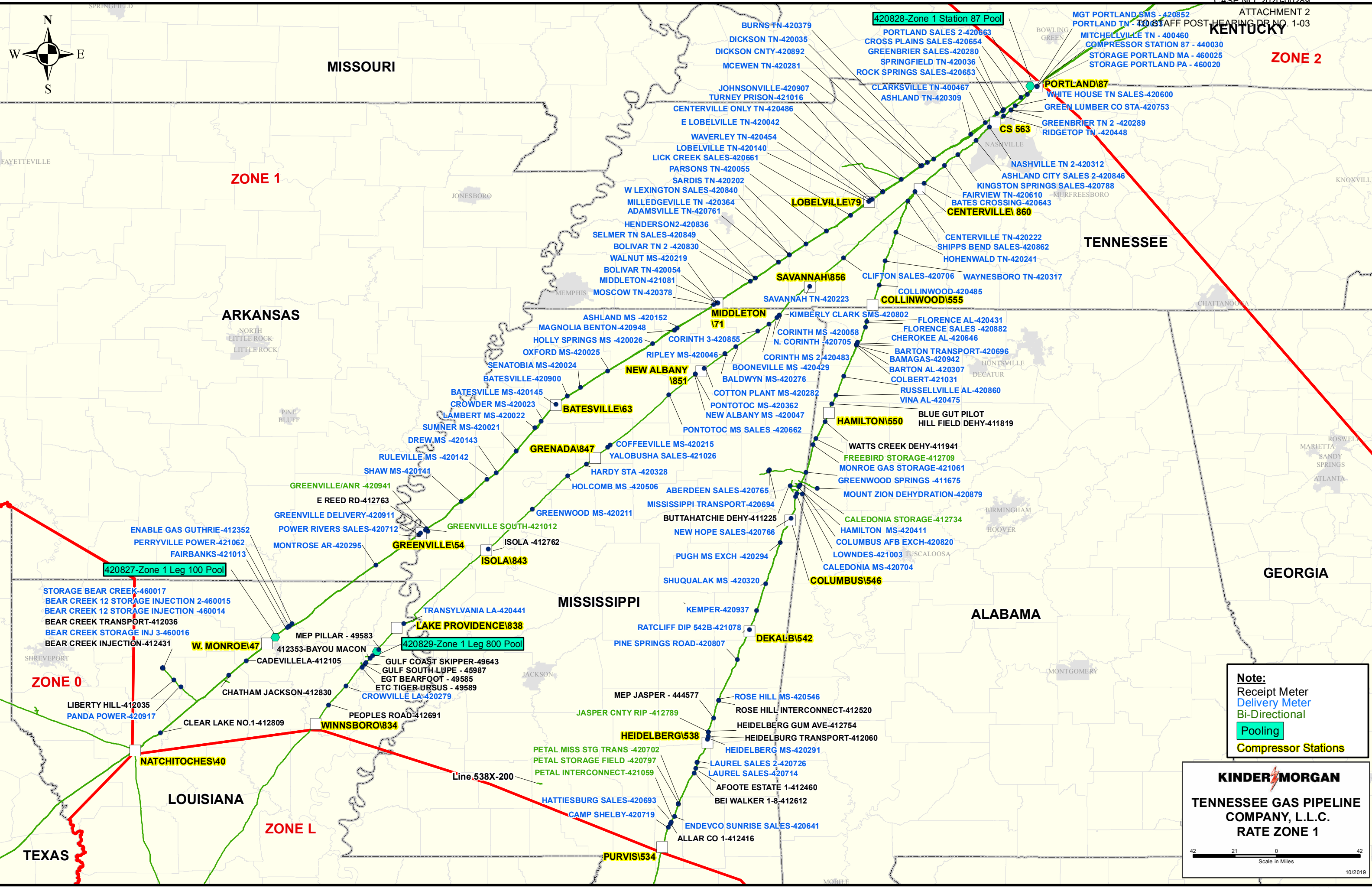
**Note:**  
 Receipt Meter  
 Delivery Meter  
 Bi-Directional  
 Pooling  
 Compressor Stations

**KINDER MORGAN**  
 TENNESSEE GAS PIPELINE  
 COMPANY, L.L.C.  
 RATE ZONE 0

42 21 0 42  
 Scale in Miles

10/2019



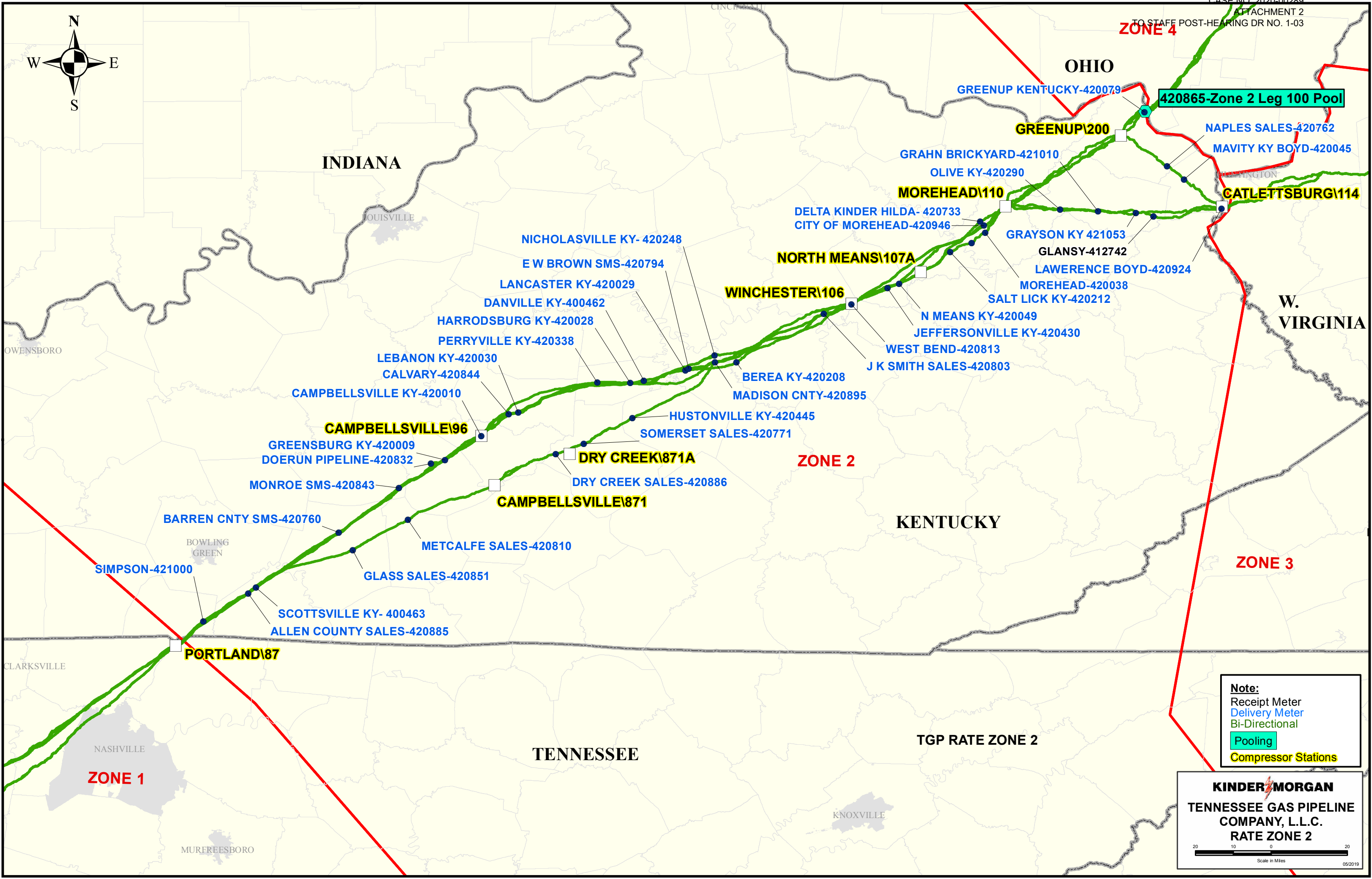
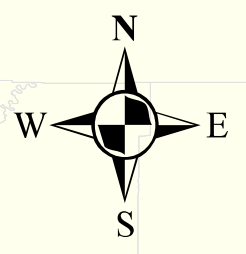


**Note:**  
 Receipt Meter  
 Delivery Meter  
 Bi-Directional  
 Pooling  
 Compressor Stations

**KINDER MORGAN**  
**TENNESSEE GAS PIPELINE COMPANY, L.L.C.**  
**RATE ZONE 1**

Scale in Miles

10/2019

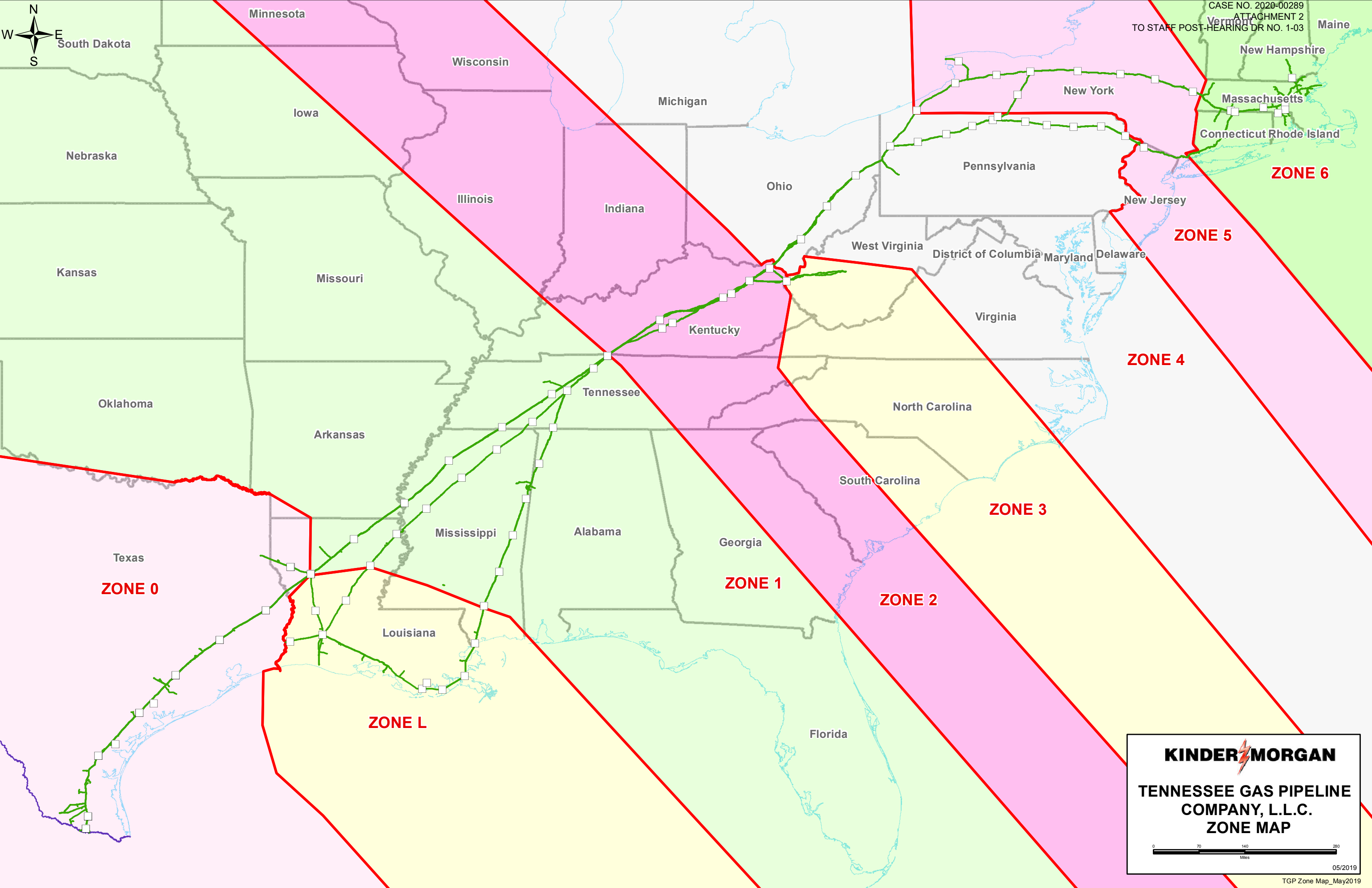


**Note:**  
 Receipt Meter  
 Delivery Meter  
 Bi-Directional  
 Pooling  
 Compressor Stations

**KINDER MORGAN**  
**TENNESSEE GAS PIPELINE**  
**COMPANY, L.L.C.**  
**RATE ZONE 2**

Scale in Miles

05/2019



**KINDER MORGAN**  
TENNESSEE GAS PIPELINE  
COMPANY, L.L.C.  
ZONE MAP

0 70 140 280  
Miles

05/2019  
TGP Zone Map\_May2019



**Case No. 2020-00289**  
**Atmos Energy Corporation, Kentucky Division**  
**Staff Post-Hearing DR Set No. 1**  
**Question No. 1-04**  
**Page 1 of 1**

**REQUEST:**

Refer to Atmos's response to Staff's First Request for Information, Item 1, Confidential Attachment 1.

- a. Provide an Excel spreadsheet, with formulas, columns, and rows unprotected and fully accessible, showing how the actual transportation costs for each pipeline, used to calculate total transportation cost for each month shown in Attachment 1, were calculated for each month from June 2017 through May 2020.
- b. Provide an Excel spreadsheet, with formulas, columns, and rows unprotected and fully accessible, showing how the benchmark transportation costs, used to calculate the savings shown on Attachment 1, were calculated from the benchmarks for each pipeline for each month from June 2017 through May 2020.

**RESPONSE:**

It appears that this data request is referring to Staff's Second Request for Information, Item 1, which was a Confidential Excel file named "Staff\_2-01\_Att1 - PBR Summary 2006-2016 (CONFIDENTIAL).xlsx".

Attached please find three Excel files, one for each PBR year requested: June 2017 – May 2018, June 2018 – May 2019, and June 2019 – May 2020. Each file has 12 monthly tabs which itemizes the transportation costs (benchmark, actual and savings) by pipeline contract. There is also a summary on each tab that corresponds to the Transportation amounts on the referenced Attachment 1 to the Company's response to Staff DR No. 2-01. Immaterial monthly variances, ranging from \$3 - \$42 per month, in the total invoiced transportation cost, are the result of Trunkline pipeline revenue credits to "non-offending customers" which are not found in the pipeline's benchmark demand rates, but appear as a line-item credit on our invoices from Trunkline. Since these are not negotiated discounts, we do not include these credits in the shared savings calculation.

**ATTACHMENTS:**

Staff PH\_1-04\_Att1 - Jun2017-May2018 Pipeline.xlsx  
Staff PH\_1-04\_Att2 - Jun2018-May2019 Pipeline.xlsx  
Staff PH\_1-04\_Att3 - Jun2019-May2020 Pipeline.xlsx

Respondent: Brannon C. Taylor

PBR Schedule-4



		Texas Gas								
Contract		#29759	#29761	#29765	#31097	#34380	#32799	#29760	#29762	#29763
Benchmark Demand Rate		\$ 7.4820	\$ -	\$ -	\$ 9.4260	\$ 7.4820	\$ 7.0020	\$ 9.2640	\$ 10.6290	\$ 12.5700
Volume		16,500	-	-	5,000	10,000	6,328	21,802	67,865	4,625
Total Demand Dollars		\$ 123,453	\$ -	\$ -	\$ 47,130	\$ 74,820	\$ 44,309	\$ 201,974	\$ 721,337	\$ 58,136
Atmos Demand Rate		\$ 5.6820	\$ -	\$ -	\$ 8.2260	\$ 5.6820	\$ 2.7000	\$ 9.2640	\$ 10.6290	\$ 12.5700
Volume		16,500	-	-	5,000	10,000	6,328	21,802	67,865	4,625
Invoice Demand Dollars		\$ 93,753	\$ -	\$ -	\$ 41,130	\$ 56,820	\$ 17,086	\$ 201,974	\$ 721,337	\$ 58,136
<b>Total Monthly Savings/(Costs)</b>		<b>\$ 29,700</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 6,000</b>	<b>\$ 18,000</b>	<b>\$ 27,223</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

PBR Schedule-4



		Texas Gas								
Contract		#29759	#29761	#29765	#31097	#34380	#32799	#29760	#29762	#29763
Benchmark Demand Rate		\$ 7.7314	\$ -	\$ -	\$ 9.7402	\$ 7.7314	\$ 7.2354	\$ 9.5728	\$ 10.9833	\$ 12.9890
Volume		16,500	-	-	5,000	10,000	6,328	21,802	67,865	4,625
Total Demand Dollars		\$ 127,568	\$ -	\$ -	\$ 48,701	\$ 77,314	\$ 45,786	\$ 208,706	\$ 745,382	\$ 60,074
Atmos Demand Rate		\$ 5.8714	\$ -	\$ -	\$ 8.5002	\$ 5.8714	\$ 2.7900	\$ 9.5728	\$ 10.9833	\$ 12.9890
Volume		16,500	-	-	5,000	10,000	6,328	21,802	67,865	4,625
Invoice Demand Dollars		\$ 96,878	\$ -	\$ -	\$ 42,501	\$ 58,714	\$ 17,655	\$ 208,706	\$ 745,382	\$ 60,074
<b>Total Monthly Savings/(Costs)</b>		<b>\$ 30,690</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 6,200</b>	<b>\$ 18,600</b>	<b>\$ 28,130</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

PBR Schedule-4



		Texas Gas								
Contract		#29759	#29761	#29765	#31097	#34380	#32799	#29760	#29762	#29763
Benchmark Demand Rate		\$ 7.7314	\$ -	\$ -	\$ 9.7402	\$ 7.7314	\$ 7.2354	\$ 9.5728	\$ 10.9833	\$ 12.9890
Volume		16,500	-	-	5,000	10,000	6,328	21,802	67,865	4,625
Total Demand Dollars		\$ 127,568	\$ -	\$ -	\$ 48,701	\$ 77,314	\$ 45,786	\$ 208,706	\$ 745,382	\$ 60,074
Atmos Demand Rate		\$ 5.8714	\$ -	\$ -	\$ 8.5002	\$ 5.8714	\$ 2.7900	\$ 9.5728	\$ 10.9833	\$ 12.9890
Volume		16,500	-	-	5,000	10,000	6,328	21,802	67,865	4,625
Invoice Demand Dollars		\$ 96,878	\$ -	\$ -	\$ 42,501	\$ 58,714	\$ 17,655	\$ 208,706	\$ 745,382	\$ 60,074
<b>Total Monthly Savings/(Costs)</b>		<b>\$ 30,690</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 6,200</b>	<b>\$ 18,600</b>	<b>\$ 28,130</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

PBR Schedule-4



		Texas Gas								
Contract		#29759	#29761	#29765	#31097	#34380	#32799	#29760	#29762	#29763
Benchmark Demand Rate		\$ 7.4820	\$ -	\$ -	\$ 9.4260	\$ 7.4820	\$ 7.0020	\$ 9.2640	\$ 10.6290	\$ 12.5700
Volume		16,500	-	-	5,000	10,000	6,328	21,802	67,865	4,625
Total Demand Dollars		\$ 123,453	\$ -	\$ -	\$ 47,130	\$ 74,820	\$ 44,309	\$ 201,974	\$ 721,337	\$ 58,136
Atmos Demand Rate		\$ 5.6820	\$ -	\$ -	\$ 8.2260	\$ 5.6820	\$ 2.7000	\$ 9.2640	\$ 10.6290	\$ 12.5700
Volume		16,500	-	-	5,000	10,000	6,328	21,802	67,865	4,625
Invoice Demand Dollars		\$ 93,753	\$ -	\$ -	\$ 41,130	\$ 56,820	\$ 17,086	\$ 201,974	\$ 721,337	\$ 58,136
<b>Total Monthly Savings/(Costs)</b>		<b>\$ 29,700</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 6,000</b>	<b>\$ 18,000</b>	<b>\$ 27,223</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

PBR Schedule-4



		Texas Gas								
Contract		#29759	#29761	#29765	#31097	#34380	#32799	#29760	#29762	#29763
Benchmark Demand Rate		\$ 7.7314	\$ -	\$ -	\$ 9.7402	\$ 7.7314	\$ 7.2354	\$ 9.5728	\$ 10.9833	\$ 12.9890
Volume		16,500	-	-	5,000	10,000	6,328	39,294	81,883	9,984
Total Demand Dollars		\$ 127,568	\$ -	\$ -	\$ 48,701	\$ 77,314	\$ 45,786	\$ 376,154	\$ 899,346	\$ 129,682
Atmos Demand Rate		\$ 5.8714	\$ -	\$ -	\$ 8.5002	\$ 5.8714	\$ 2.7900	\$ 9.5728	\$ 10.9833	\$ 12.9890
Volume		16,500	-	-	5,000	10,000	6,328	39,294	81,883	9,984
Invoice Demand Dollars		\$ 96,878	\$ -	\$ -	\$ 42,501	\$ 58,714	\$ 17,655	\$ 376,154	\$ 899,346	\$ 129,682
<b>Total Monthly Savings/(Costs)</b>		<b>\$ 30,690</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 6,200</b>	<b>\$ 18,600</b>	<b>\$ 28,130</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

PBR Schedule-4



		Texas Gas								
Contract		#29759	#29761	#29765	#31097	#34380	#32799	#29760	#29762	#29763
Benchmark Demand Rate		\$ 7.4820	\$ -	\$ -	\$ 9.4260	\$ 7.4820	\$ 7.0020	\$ 9.2640	\$ 10.6290	\$ 12.5700
Volume		16,500	-	-	5,000	10,000	6,328	44,500	82,000	13,500
Total Demand Dollars		\$ 123,453	\$ -	\$ -	\$ 47,130	\$ 74,820	\$ 44,309	\$ 412,248	\$ 871,578	\$ 169,695
Atmos Demand Rate		\$ 5.6820	\$ -	\$ -	\$ 8.2260	\$ 5.6820	\$ 2.7000	\$ 9.2640	\$ 10.6290	\$ 12.5700
Volume		16,500	-	-	5,000	10,000	6,328	44,500	82,000	13,500
Invoice Demand Dollars		\$ 93,753	\$ -	\$ -	\$ 41,130	\$ 56,820	\$ 17,086	\$ 412,248	\$ 871,578	\$ 169,695
<b>Total Monthly Savings/(Costs)</b>		<b>\$ 29,700</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 6,000</b>	<b>\$ 18,000</b>	<b>\$ 27,223</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

PBR Schedule-4



		Texas Gas								
Contract		#29759	#29761	#29765	#31097	#34380	#32799	#29760	#29762	#29763
Benchmark Demand Rate		\$ 7.7314	\$ 11.5661	\$ -	\$ 9.7402	\$ 7.7314	\$ 7.2354	\$ 9.5728	\$ 10.9833	\$ 12.9890
Volume		16,500	1,000	-	5,000	10,000	6,328	44,500	82,000	13,500
Total Demand Dollars		\$ 127,568	\$ 11,566	\$ -	\$ 48,701	\$ 77,314	\$ 45,786	\$ 425,990	\$ 900,631	\$ 175,352
Atmos Demand Rate		\$ 5.8714	\$ 5.7831	\$ -	\$ 8.5002	\$ 5.8714	\$ 2.7900	\$ 9.5728	\$ 10.9833	\$ 12.9890
Volume		16,500	1,000	-	5,000	10,000	6,328	44,500	82,000	13,500
Invoice Demand Dollars		\$ 96,878	\$ 5,783	\$ -	\$ 42,501	\$ 58,714	\$ 17,655	\$ 425,990	\$ 900,631	\$ 175,352
<b>Total Monthly Savings/(Costs)</b>		<b>\$ 30,690</b>	<b>\$ 5,783</b>	<b>\$ -</b>	<b>\$ 6,200</b>	<b>\$ 18,600</b>	<b>\$ 28,130</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>



PBR Schedule-4



		Texas Gas								
Contract		#29759	#29761/36788	#29765	#31097	#34380	#32799	#29760	#29762	#29763
Benchmark Demand Rate		\$ 7.7314	\$ 11.5661	\$ -	\$ 9.7402	\$ 7.7314	\$ 7.2354	\$ 9.5728	\$ 10.9833	\$ 12.9890
Volume		16,500	1,000	-	5,000	10,000	6,328	44,500	82,000	13,500
Total Demand Dollars		\$ 127,568	\$ 11,566	\$ -	\$ 48,701	\$ 77,314	\$ 45,786	\$ 425,990	\$ 900,631	\$ 175,352
Atmos Demand Rate		\$ 5.8714	\$ 5.7831	\$ -	\$ 8.5002	\$ 5.8714	\$ 2.7900	\$ 9.5728	\$ 10.9833	\$ 12.9890
Volume		16,500	1,000	-	5,000	10,000	6,328	44,500	82,000	13,500
Invoice Demand Dollars		\$ 96,878	\$ 5,783	\$ -	\$ 42,501	\$ 58,714	\$ 17,655	\$ 425,990	\$ 900,631	\$ 175,352
Total Monthly Savings/(Costs)		\$ 30,690	\$ 5,783	\$ -	\$ 6,200	\$ 18,600	\$ 28,130	\$ -	\$ -	\$ -

PBR Schedule-4



		Texas Gas								
Contract		#29759	#29761/36788	#29765	#31097	#34380	#32799	#29760	#29762	#29763
Benchmark Demand Rate		\$ 6.9832	\$ 10.4468	\$ -	\$ 8.7976	\$ 6.9832	\$ 6.5352	\$ 8.6464	\$ 9.9204	\$ 11.7320
Volume		16,500	1,000	-	5,000	10,000	6,328	44,500	82,000	13,500
Total Demand Dollars		\$ 115,223	\$ 10,447	\$ -	\$ 43,988	\$ 69,832	\$ 41,355	\$ 384,765	\$ 813,473	\$ 158,382
Atmos Demand Rate		\$ 5.3032	\$ 5.2234	\$ -	\$ 7.6776	\$ 5.3032	\$ 2.5200	\$ 8.6464	\$ 9.9204	\$ 11.7320
Volume		16,500	1,000	-	5,000	10,000	6,328	44,500	82,000	13,500
Invoice Demand Dollars		\$ 87,503	\$ 5,223	\$ -	\$ 38,388	\$ 53,032	\$ 15,947	\$ 384,765	\$ 813,473	\$ 158,382
Total Monthly Savings/(Costs)		\$ 27,720	\$ 5,223	\$ -	\$ 5,600	\$ 16,800	\$ 25,408	\$ -	\$ -	\$ -

PBR Schedule-4



		Texas Gas								
Contract		#29759	#29761/36788	#29765	#31097	#34380	#32799	#29760	#29762	#29763
Benchmark Demand Rate		\$ 7.7314	\$ -	\$ -	\$ 9.7402	\$ 7.7314	\$ 7.2354	\$ 9.5728	\$ 10.9833	\$ 12.9890
Volume		16,500	-	-	5,000	10,000	6,328	44,500	82,000	13,500
Total Demand Dollars		\$ 127,568	\$ -	\$ -	\$ 48,701	\$ 77,314	\$ 45,786	\$ 425,990	\$ 900,631	\$ 175,352
Atmos Demand Rate		\$ 5.8714	\$ -	\$ -	\$ 8.5002	\$ 5.8714	\$ 2.7900	\$ 9.5728	\$ 10.9833	\$ 12.9890
Volume		16,500	-	-	5,000	10,000	6,328	44,500	82,000	13,500
Invoice Demand Dollars		\$ 96,878	\$ -	\$ -	\$ 42,501	\$ 58,714	\$ 17,655	\$ 425,990	\$ 900,631	\$ 175,352
Total Monthly Savings/(Costs)		\$ 30,690	\$ -	\$ -	\$ 6,200	\$ 18,600	\$ 28,130	\$ -	\$ -	\$ -

PBR Schedule-4



		Texas Gas								
Contract		#29759	#29761/36788	#29765	#31097	#34380	#32799	#29760	#29762	#29763
Benchmark Demand Rate		\$ 7.4820	\$ -	\$ -	\$ 9.4260	\$ 7.4820	\$ 7.0020	\$ 9.2640	\$ 10.6290	\$ 12.5700
Volume		16,500	-	-	5,000	10,000	6,328	35,568	81,799	8,838
Total Demand Dollars		\$ 123,453	\$ -	\$ -	\$ 47,130	\$ 74,820	\$ 44,309	\$ 329,502	\$ 869,442	\$ 111,094
Atmos Demand Rate		\$ 5.6820	\$ -	\$ -	\$ 8.2260	\$ 5.6820	\$ 2.8500	\$ 9.2640	\$ 10.6290	\$ 12.5700
Volume		16,500	-	-	5,000	10,000	6,328	35,568	81,799	8,838
Invoice Demand Dollars		\$ 93,753	\$ -	\$ -	\$ 41,130	\$ 56,820	\$ 18,035	\$ 329,502	\$ 869,442	\$ 111,094
Total Monthly Savings/(Costs)		\$ 29,700	\$ -	\$ -	\$ 6,000	\$ 18,000	\$ 26,274	\$ -	\$ -	\$ -

PBR Schedule-4



		Texas Gas								
Contract		#29759	#29761/36788	#29765	#31097	#34380	#32799	#29760	#29762	#29763
Benchmark Demand Rate		\$ 7.7314	\$ -	\$ 3.6611	\$ 9.7402	\$ 7.7314	\$ 7.2354	\$ 9.5728	\$ 10.9833	\$ 12.9890
Volume		16,500	-	-	5,000	10,000	6,328	21,802	67,865	4,625
Total Demand Dollars		\$ 127,568	\$ -	\$ -	\$ 48,701	\$ 77,314	\$ 45,786	\$ 208,706	\$ 745,382	\$ 60,074
Atmos Demand Rate		\$ 5.8714	\$ -	\$ 3.6611	\$ 8.5002	\$ 5.8714	\$ 2.9450	\$ 9.5728	\$ 10.9833	\$ 12.9890
Volume		16,500	-	-	5,000	10,000	6,328	21,802	67,865	4,625
Invoice Demand Dollars		\$ 96,878	\$ -	\$ -	\$ 42,501	\$ 58,714	\$ 18,636	\$ 208,706	\$ 745,382	\$ 60,074
Total Monthly Savings/(Costs)		\$ 30,690	\$ -	\$ -	\$ 6,200	\$ 18,600	\$ 27,150	\$ -	\$ -	\$ -

PBR Schedule-4



		Texas Gas								
Contract		#29759	#29761/36788	#29765	#31097	#34380	#32799	#29760	#29762	#29763
Benchmark Demand Rate		\$ 7.4820	\$ -	\$ 3.5430	\$ 9.4260	\$ 7.4820	\$ 7.0020	\$ 9.2640	\$ 10.6290	\$ 12.5700
Volume		16,500	-	5,000	5,000	10,000	6,328	21,802	67,865	4,625
Total Demand Dollars		\$ 123,453	\$ -	\$ 17,715	\$ 47,130	\$ 74,820	\$ 44,309	\$ 201,974	\$ 721,337	\$ 58,136
Atmos Demand Rate		\$ 5.6820	\$ -	\$ 3.5430	\$ 8.2260	\$ 5.6820	\$ 2.8500	\$ 9.2640	\$ 10.6290	\$ 12.5700
Volume		16,500	-	5,000	5,000	10,000	6,328	21,802	67,865	4,625
Invoice Demand Dollars		\$ 93,753	\$ -	\$ 17,715	\$ 41,130	\$ 56,820	\$ 18,035	\$ 201,974	\$ 721,337	\$ 58,136
<b>Total Monthly Savings/(Costs)</b>		<b>\$ 29,700</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 6,000</b>	<b>\$ 18,000</b>	<b>\$ 26,274</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

PBR Schedule-4



		Texas Gas								
Contract		#29759	#29761/36788	#29765	#31097	#34380	#32799	#29760	#29762	#29763
Benchmark Demand Rate		\$ 7.7314	\$ -	\$ 3.6611	\$ 9.7402	\$ 7.7314	\$ 7.2354	\$ 9.5728	\$ 10.9833	\$ 12.9890
Volume		16,500	-	5,000	5,000	10,000	6,328	21,802	67,865	4,625
Total Demand Dollars		\$ 127,568	\$ -	\$ 18,306	\$ 48,701	\$ 77,314	\$ 45,786	\$ 208,706	\$ 745,382	\$ 60,074
Atmos Demand Rate		\$ 5.8714	\$ -	\$ 3.6611	\$ 8.5002	\$ 5.8714	\$ 2.9450	\$ 9.5728	\$ 10.9833	\$ 12.9890
Volume		16,500	-	5,000	5,000	10,000	6,328	21,802	67,865	4,625
Invoice Demand Dollars		\$ 96,878	\$ -	\$ 18,306	\$ 42,501	\$ 58,714	\$ 18,636	\$ 208,706	\$ 745,382	\$ 60,074
<b>Total Monthly Savings/(Costs)</b>		<b>\$ 30,690</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 6,200</b>	<b>\$ 18,600</b>	<b>\$ 27,150</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

PBR Schedule-4



		Texas Gas								
Contract		#29759	#36788	#36733	#31097	#34380	#34674/37063	#29760	#29762	#29763
Benchmark Demand Rate		\$ 7.7314	\$ -	\$ 3.6611	\$ 9.7402	\$ 7.7314	\$ 7.2354	\$ 9.5728	\$ 10.9833	\$ 12.9890
Volume		16,500	-	5,000	5,000	10,000	6,328	21,802	67,865	4,625
Total Demand Dollars		\$ 127,568	\$ -	\$ 18,306	\$ 48,701	\$ 77,314	\$ 45,786	\$ 208,706	\$ 745,382	\$ 60,074
Atmos Demand Rate		\$ 5.8714	\$ -	\$ 3.6611	\$ 8.5002	\$ 5.8714	\$ 2.9450	\$ 9.5728	\$ 10.9833	\$ 12.9890
Volume		16,500	-	5,000	5,000	10,000	6,328	21,802	67,865	4,625
Invoice Demand Dollars		\$ 96,878	\$ -	\$ 18,306	\$ 42,501	\$ 58,714	\$ 18,636	\$ 208,706	\$ 745,382	\$ 60,074
<b>Total Monthly Savings/(Costs)</b>		<b>\$ 30,690</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 6,200</b>	<b>\$ 18,600</b>	<b>\$ 27,150</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>



PBR Schedule-4



		Texas Gas								
Contract		#29759	#36788	#36733	#31097	#34380	#34674/37063	#29760	#29762	#29763
Benchmark Demand Rate		\$ 7.4820	\$ -	\$ 3.5430	\$ 9.4260	\$ 7.4820	\$ 7.0020	\$ 9.2640	\$ 10.6290	\$ 12.5700
Volume		16,500	-	5,000	5,000	10,000	6,328	21,802	67,865	4,625
Total Demand Dollars		\$ 123,453	\$ -	\$ 17,715	\$ 47,130	\$ 74,820	\$ 44,309	\$ 201,974	\$ 721,337	\$ 58,136
Atmos Demand Rate		\$ 5.6820	\$ -	\$ 3.5430	\$ 8.2260	\$ 5.6820	\$ 2.8500	\$ 9.2640	\$ 10.6290	\$ 12.5700
Volume		16,500	-	5,000	5,000	10,000	6,328	21,802	67,865	4,625
Invoice Demand Dollars		\$ 93,753	\$ -	\$ 17,715	\$ 41,130	\$ 56,820	\$ 18,035	\$ 201,974	\$ 721,337	\$ 58,136
<b>Total Monthly Savings/(Costs)</b>		<b>\$ 29,700</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 6,000</b>	<b>\$ 18,000</b>	<b>\$ 26,274</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

PBR Schedule-4



		Texas Gas								
Contract		#29759	#36788	#36733	#31097	#34380	#34674/37063	#29760	#29762	#29763
Benchmark Demand Rate		\$ 7.7314	\$ -	\$ 3.6611	\$ 9.7402	\$ 7.7314	\$ 7.2354	\$ 9.5728	\$ 10.9833	\$ 12.9890
Volume		16,500	-	5,000	5,000	10,000	6,328	39,294	81,883	9,984
Total Demand Dollars		\$ 127,568	\$ -	\$ 18,306	\$ 48,701	\$ 77,314	\$ 45,786	\$ 376,154	\$ 899,346	\$ 129,682
Atmos Demand Rate		\$ 5.8714	\$ -	\$ 3.6611	\$ 8.5002	\$ 5.8714	\$ 2.9450	\$ 9.5728	\$ 10.9833	\$ 12.9890
Volume		16,500	-	5,000	5,000	10,000	6,328	39,294	81,883	9,984
Invoice Demand Dollars		\$ 96,878	\$ -	\$ 18,306	\$ 42,501	\$ 58,714	\$ 18,636	\$ 376,154	\$ 899,346	\$ 129,682
<b>Total Monthly Savings/(Costs)</b>		<b>\$ 30,690</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 6,200</b>	<b>\$ 18,600</b>	<b>\$ 27,150</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

PBR Schedule-4



		Texas Gas								
Contract		#29759	#36788	#36733	#31097	#34380	#34674/37063	#29760	#29762	#29763
Benchmark Demand Rate		\$ 7.4820	\$ -	\$ 3.5430	\$ 9.4260	\$ 7.4820	\$ 7.0020	\$ 9.2640	\$ 10.6290	\$ 12.5700
Volume		16,500	-	5,000	5,000	10,000	6,328	44,500	82,000	13,500
Total Demand Dollars		\$ 123,453	\$ -	\$ 17,715	\$ 47,130	\$ 74,820	\$ 44,309	\$ 412,248	\$ 871,578	\$ 169,695
Atmos Demand Rate		\$ 5.6820	\$ -	\$ 3.5430	\$ 8.2260	\$ 5.6820	\$ 2.8500	\$ 9.2640	\$ 10.6290	\$ 12.5700
Volume		16,500	-	5,000	5,000	10,000	6,328	44,500	82,000	13,500
Invoice Demand Dollars		\$ 93,753	\$ -	\$ 17,715	\$ 41,130	\$ 56,820	\$ 18,035	\$ 412,248	\$ 871,578	\$ 169,695
<b>Total Monthly Savings/(Costs)</b>		<b>\$ 29,700</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 6,000</b>	<b>\$ 18,000</b>	<b>\$ 26,274</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

PBR Schedule-4



		Texas Gas								
Contract		#29759	#36788	#36733	#31097	#34380	#34674/37063	#29760	#29762	#29763
Benchmark Demand Rate		\$ 7.7314	\$ -	\$ 3.6611	\$ 9.7402	\$ 7.731	\$ 7.2354	\$ 9.5728	\$ 10.9833	\$ 12.9890
Volume		16,500	-	5,000	5,000	10,000	6,328	44,500	82,000	13,500
Total Demand Dollars		\$ 127,568	\$ -	\$ 18,306	\$ 48,701	\$ 77,314	\$ 45,786	\$ 425,990	\$ 900,631	\$ 175,352
Atmos Demand Rate		\$ 5.8714	\$ -	\$ 3.6611	\$ 8.5002	\$ 5.8714	\$ 2.9450	\$ 9.5728	\$ 10.9833	\$ 12.9890
Volume		16,500	-	5,000	5,000	10,000	6,328	44,500	82,000	13,500
Invoice Demand Dollars		\$ 96,878	\$ -	\$ 18,306	\$ 42,501	\$ 58,714	\$ 18,636	\$ 425,990	\$ 900,631	\$ 175,352
<b>Total Monthly Savings/(Costs)</b>		<b>\$ 30,690</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 6,200</b>	<b>\$ 18,600</b>	<b>\$ 27,150</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

PBR Schedule-4



		Texas Gas								
Contract		#29759	#36788	#36733	#31097	#34380	#34674/37063	#29760	#29762	#29763
Benchmark Demand Rate		\$ 7.7314	\$ -	\$ 3.6611	\$ 9.7402	\$ 7.731	\$ 7.2354	\$ 9.5728	\$ 10.9833	\$ 12.9890
Volume		16,500	-	5,000	5,000	10,000	6,328	44,500	82,000	13,500
Total Demand Dollars		\$ 127,568	\$ -	\$ 18,306	\$ 48,701	\$ 77,314	\$ 45,786	\$ 425,990	\$ 900,631	\$ 175,352
Atmos Demand Rate		\$ 5.8714	\$ -	\$ 3.6611	\$ 8.5002	\$ 5.8714	\$ 2.9450	\$ 9.5728	\$ 10.9833	\$ 12.9890
Volume		16,500	-	5,000	5,000	10,000	6,328	44,500	82,000	13,500
Invoice Demand Dollars		\$ 96,878	\$ -	\$ 18,306	\$ 42,501	\$ 58,714	\$ 18,636	\$ 425,990	\$ 900,631	\$ 175,352
<b>Total Monthly Savings/(Costs)</b>		<b>\$ 30,690</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 6,200</b>	<b>\$ 18,600</b>	<b>\$ 27,150</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

PBR Schedule-4



		Texas Gas								
Contract		#29759	#36788	#36733	#31097	#34380	#34674/37063	#29760	#29762	#29763
Benchmark Demand Rate		\$ 6.9832	\$ -	\$ 3.3068	\$ 8.7976	\$ 6.983	\$ 6.5352	\$ 8.6464	\$ 9.9204	\$ 11.7320
Volume		16,500	-	5,000	5,000	10,000	6,328	44,500	82,000	13,500
Total Demand Dollars		\$ 115,223	\$ -	\$ 16,534	\$ 43,988	\$ 69,832	\$ 41,355	\$ 384,765	\$ 813,473	\$ 158,382
Atmos Demand Rate		\$ 5.3032	\$ -	\$ 3.3068	\$ 7.6776	\$ 5.3032	\$ 2.6600	\$ 8.6464	\$ 9.9204	\$ 11.7320
Volume		16,500	-	5,000	5,000	10,000	6,328	44,500	82,000	13,500
Invoice Demand Dollars		\$ 87,503	\$ -	\$ 16,534	\$ 38,388	\$ 53,032	\$ 16,832	\$ 384,765	\$ 813,473	\$ 158,382
<b>Total Monthly Savings/(Costs)</b>		<b>\$ 27,720</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 5,600</b>	<b>\$ 16,800</b>	<b>\$ 24,522</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

PBR Schedule-4



		Texas Gas								
Contract		#29759	#36788	#36733	#31097	#34380	#34674/37063	#29760	#29762	#29763
Benchmark Demand Rate		\$ 7.7314	\$ -	\$ 3.6611	\$ 9.7402	\$ 7.731	\$ 7.2354	\$ 9.5728	\$ 10.9833	\$ 12.9890
Volume		16,500	-	5,000	5,000	10,000	6,328	44,500	82,000	13,500
Total Demand Dollars		\$ 127,568	\$ -	\$ 18,306	\$ 48,701	\$ 77,314	\$ 45,786	\$ 425,990	\$ 900,631	\$ 175,352
Atmos Demand Rate		\$ 5.8714	\$ -	\$ 3.6611	\$ 8.5002	\$ 5.8714	\$ 2.9450	\$ 9.5728	\$ 10.9833	\$ 12.9890
Volume		16,500	-	5,000	5,000	10,000	6,328	44,500	82,000	13,500
Invoice Demand Dollars		\$ 96,878	\$ -	\$ 18,306	\$ 42,501	\$ 58,714	\$ 18,636	\$ 425,990	\$ 900,631	\$ 175,352
<b>Total Monthly Savings/(Costs)</b>		<b>\$ 30,690</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 6,200</b>	<b>\$ 18,600</b>	<b>\$ 27,150</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

PBR Schedule-4



		Texas Gas								
Contract		#29759	#36788	#36733	#31097	#34380	#34674/37063	#29760	#29762	#29763
Benchmark Demand Rate		\$ 7.4820	\$ -	\$ 3.5430	\$ 9.4260	\$ 7.482	\$ 7.0020	\$ 9.2640	\$ 10.6290	\$ 12.5700
Volume		16,500	-	5,000	5,000	10,000	6,328	35,568	81,799	8,838
Total Demand Dollars		\$ 123,453	\$ -	\$ 17,715	\$ 47,130	\$ 74,820	\$ 44,309	\$ 329,502	\$ 869,442	\$ 111,094
Atmos Demand Rate		\$ 5.6820	\$ -	\$ 3.5430	\$ 8.2260	\$ 5.6820	\$ 2.8500	\$ 9.2640	\$ 10.6290	\$ 12.5700
Volume		16,500	-	5,000	5,000	10,000	6,328	35,568	81,799	8,838
Invoice Demand Dollars		\$ 93,753	\$ -	\$ 17,715	\$ 41,130	\$ 56,820	\$ 18,035	\$ 329,502	\$ 869,442	\$ 111,094
<b>Total Monthly Savings/(Costs)</b>		<b>\$ 29,700</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 6,000</b>	<b>\$ 18,000</b>	<b>\$ 26,274</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>



PBR Schedule-4



		Texas Gas								
Contract		#29759	#36788	#36733	#31097	#34380	#34674/37063	#29760	#29762	#29763
Benchmark Demand Rate		\$ 7.7314	\$ -	\$ 3.6611	\$ 9.7402	\$ 7.731	\$ 7.2354	\$ 9.5728	\$ 10.9833	\$ 12.9890
Volume		16,500	-	5,000	5,000	10,000	6,328	21,802	67,865	4,625
Total Demand Dollars		\$ 127,568	\$ -	\$ 18,306	\$ 48,701	\$ 77,314	\$ 45,786	\$ 208,706	\$ 745,382	\$ 60,074
Atmos Demand Rate		\$ 5.8714	\$ -	\$ 3.6611	\$ 8.5002	\$ 5.8714	\$ 2.9450	\$ 9.5728	\$ 10.9833	\$ 12.9890
Volume		16,500	-	5,000	5,000	10,000	6,328	21,802	67,865	4,625
Invoice Demand Dollars		\$ 96,878	\$ -	\$ 18,306	\$ 42,501	\$ 58,714	\$ 18,636	\$ 208,706	\$ 745,382	\$ 60,074
<b>Total Monthly Savings/(Costs)</b>		<b>\$ 30,690</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 6,200</b>	<b>\$ 18,600</b>	<b>\$ 27,150</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

PBR Schedule-4



		Texas Gas								
Contract		#29759	#36788	#36733	#31097	#34380	#34674/37063	#29760	#29762	#29763
Benchmark Demand Rate		\$ 7.4820	\$ -	\$ 3.5430	\$ 9.4260	\$ 7.482	\$ 7.0020	\$ 9.2640	\$ 10.6290	\$ 12.5700
Volume		16,500	-	5,000	5,000	10,000	6,328	21,802	67,865	4,625
Total Demand Dollars		\$ 123,453	\$ -	\$ 17,715	\$ 47,130	\$ 74,820	\$ 44,309	\$ 201,974	\$ 721,337	\$ 58,136
Atmos Demand Rate		\$ 5.6820	\$ -	\$ 3.5430	\$ 8.2260	\$ 5.6820	\$ 2.8500	\$ 9.2640	\$ 10.6290	\$ 12.5700
Volume		16,500	-	5,000	5,000	10,000	6,328	21,802	67,865	4,625
Invoice Demand Dollars		\$ 93,753	\$ -	\$ 17,715	\$ 41,130	\$ 56,820	\$ 18,035	\$ 201,974	\$ 721,337	\$ 58,136
<b>Total Monthly Savings/(Costs)</b>		<b>\$ 29,700</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 6,000</b>	<b>\$ 18,000</b>	<b>\$ 26,274</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

PBR Schedule-4



		Texas Gas								
Contract		#29759	#36788	#36733	#31097	#34380	#34674/37063	#29760	#29762	#29763
Benchmark Demand Rate		\$ 7.7314	\$ -	\$ 3.6611	\$ 9.7402	\$ 7.731	\$ 7.7314	\$ 9.5728	\$ 10.9833	\$ 12.9890
Volume		16,500	-	5,000	5,000	10,000	6,328	21,802	67,865	4,625
Total Demand Dollars		\$ 127,568	\$ -	\$ 18,306	\$ 48,701	\$ 77,314	\$ 48,924	\$ 208,706	\$ 745,382	\$ 60,074
Atmos Demand Rate		\$ 5.8714	\$ -	\$ 3.6611	\$ 8.5002	\$ 5.8714	\$ 2.9450	\$ 9.5728	\$ 10.9833	\$ 12.9890
Volume		16,500	-	5,000	5,000	10,000	6,328	21,802	67,865	4,625
Invoice Demand Dollars		\$ 96,878	\$ -	\$ 18,306	\$ 42,501	\$ 58,714	\$ 18,636	\$ 208,706	\$ 745,382	\$ 60,074
<b>Total Monthly Savings/(Costs)</b>		<b>\$ 30,690</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 6,200</b>	<b>\$ 18,600</b>	<b>\$ 30,288</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

PBR Schedule-4



		Texas Gas								
Contract		#29759	#36788	#36733	#31097	#34380	#34674/37063	#29760	#29762	#29763
Benchmark Demand Rate		\$ 7.7314	\$ -	\$ 3.6611	\$ 9.7402	\$ 7.731	\$ 7.2354	\$ 9.5728	\$ 10.9833	\$ 12.9890
Volume		16,500	-	5,000	5,000	10,000	6,328	21,802	67,865	4,625
Total Demand Dollars		\$ 127,568	\$ -	\$ 18,306	\$ 48,701	\$ 77,314	\$ 45,786	\$ 208,706	\$ 745,382	\$ 60,074
Atmos Demand Rate		\$ 5.8714	\$ -	\$ 3.6611	\$ 8.5002	\$ 5.8714	\$ 2.9450	\$ 9.5728	\$ 10.9833	\$ 12.9890
Volume		16,500	-	5,000	5,000	10,000	6,328	21,802	67,865	4,625
Invoice Demand Dollars		\$ 96,878	\$ -	\$ 18,306	\$ 42,501	\$ 58,714	\$ 18,636	\$ 208,706	\$ 745,382	\$ 60,074
<b>Total Monthly Savings/(Costs)</b>		<b>\$ 30,690</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 6,200</b>	<b>\$ 18,600</b>	<b>\$ 27,150</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

PBR Schedule-4



		Texas Gas								
Contract		#29759	#36788	#36733	#31097	#34380	#34674/37063	#29760	#29762	#29763
Benchmark Demand Rate		\$ 7.4820	\$ -	\$ 3.5430	\$ 9.4260	\$ 7.482	\$ 7.0020	\$ 9.2640	\$ 10.6290	\$ 12.5700
Volume		16,500	-	5,000	5,000	10,000	6,328	21,802	67,865	4,625
Total Demand Dollars		\$ 123,453	\$ -	\$ 17,715	\$ 47,130	\$ 74,820	\$ 44,309	\$ 201,974	\$ 721,337	\$ 58,136
Atmos Demand Rate		\$ 5.6820	\$ -	\$ 3.5430	\$ 8.2260	\$ 5.6820	\$ 2.8500	\$ 9.2640	\$ 10.6290	\$ 12.5700
Volume		16,500	-	5,000	5,000	10,000	6,328	21,802	67,865	4,625
Invoice Demand Dollars		\$ 93,753	\$ -	\$ 17,715	\$ 41,130	\$ 56,820	\$ 18,035	\$ 201,974	\$ 721,337	\$ 58,136
<b>Total Monthly Savings/(Costs)</b>		<b>\$ 29,700</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 6,000</b>	<b>\$ 18,000</b>	<b>\$ 26,274</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

PBR Schedule-4



		Texas Gas								
Contract		#29759	#36788	#36733	#31097	#34380	#34674/37063	#29760	#29762	#29763
Benchmark Demand Rate		\$ 7.7314	\$ -	\$ 3.6611	\$ 9.7402	\$ 7.731	\$ 7.2354	\$ 9.5728	\$ 10.9833	\$ 12.9890
Volume		16,500	-	5,000	5,000	10,000	6,328	39,294	81,883	9,984
Total Demand Dollars		\$ 127,568	\$ -	\$ 18,306	\$ 48,701	\$ 77,314	\$ 45,786	\$ 376,154	\$ 899,346	\$ 129,682
Atmos Demand Rate		\$ 5.8714	\$ -	\$ 3.6611	\$ 8.5002	\$ 5.8714	\$ 2.9450	\$ 9.5728	\$ 10.9833	\$ 12.9890
Volume		16,500	-	5,000	5,000	10,000	6,328	39,294	81,883	9,984
Invoice Demand Dollars		\$ 96,878	\$ -	\$ 18,306	\$ 42,501	\$ 58,714	\$ 18,636	\$ 376,154	\$ 899,346	\$ 129,682
<b>Total Monthly Savings/(Costs)</b>		<b>\$ 30,690</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 6,200</b>	<b>\$ 18,600</b>	<b>\$ 27,150</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

PBR Schedule-4



		Texas Gas								
Contract		#29759	#36788	#36733	#31097	#34380	#34674/37063	#29760	#29762	#29763
Benchmark Demand Rate		\$ 7.4820	\$ -	\$ 3.5430	\$ 9.4260	\$ 7.482	\$ 7.0020	\$ 9.2640	\$ 10.6290	\$ 12.5700
Volume		16,500	-	5,000	5,000	10,000	6,328	44,500	82,000	13,500
Total Demand Dollars		\$ 123,453	\$ -	\$ 17,715	\$ 47,130	\$ 74,820	\$ 44,309	\$ 412,248	\$ 871,578	\$ 169,695
Atmos Demand Rate		\$ 5.6820	\$ -	\$ 3.5430	\$ 8.2260	\$ 5.6820	\$ 2.8500	\$ 9.2640	\$ 10.6290	\$ 12.5700
Volume		16,500	-	5,000	5,000	10,000	6,328	44,500	82,000	13,500
Invoice Demand Dollars		\$ 93,753	\$ -	\$ 17,715	\$ 41,130	\$ 56,820	\$ 18,035	\$ 412,248	\$ 871,578	\$ 169,695
<b>Total Monthly Savings/(Costs)</b>		<b>\$ 29,700</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 6,000</b>	<b>\$ 18,000</b>	<b>\$ 26,274</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

PBR Schedule-4



		Texas Gas								
Contract		#29759	#36788	#36733	#31097	#34380	#34674/37063	#29760	#29762	#29763
Benchmark Demand Rate		\$ 7.7314	\$ -	\$ 3.6611	\$ 9.7402	\$ 7.731	\$ 7.2354	\$ 9.5728	\$ 10.9833	\$ 12.9890
Volume		16,500	-	5,000	5,000	10,000	6,328	44,500	82,000	13,500
Total Demand Dollars		\$ 127,568	\$ -	\$ 18,306	\$ 48,701	\$ 77,314	\$ 45,786	\$ 425,990	\$ 900,631	\$ 175,352
Atmos Demand Rate		\$ 5.8714	\$ -	\$ 3.6611	\$ 8.5002	\$ 5.8714	\$ 2.9450	\$ 9.5728	\$ 10.9833	\$ 12.9890
Volume		16,500	-	5,000	5,000	10,000	6,328	44,500	82,000	13,500
Invoice Demand Dollars		\$ 96,878	\$ -	\$ 18,306	\$ 42,501	\$ 58,714	\$ 18,636	\$ 425,990	\$ 900,631	\$ 175,352
<b>Total Monthly Savings/(Costs)</b>		<b>\$ 30,690</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 6,200</b>	<b>\$ 18,600</b>	<b>\$ 27,150</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>



PBR Schedule-4



		Texas Gas								
Contract		#29759	#36788	#36733	#31097	#34380	#34674/37063	#29760	#29762	#29763
Benchmark Demand Rate		\$ 7.7314	\$ -	\$ 3.6611	\$ 9.7402	\$ 7.731	\$ 7.2354	\$ 9.5728	\$ 10.9833	\$ 12.9890
Volume		16,500	-	5,000	5,000	10,000	6,328	44,500	82,000	13,500
Total Demand Dollars		\$ 127,568	\$ -	\$ 18,306	\$ 48,701	\$ 77,314	\$ 45,786	\$ 425,990	\$ 900,631	\$ 175,352
Atmos Demand Rate		\$ 5.8714	\$ -	\$ 3.6611	\$ 8.5002	\$ 5.8714	\$ 2.9450	\$ 9.5728	\$ 10.9833	\$ 12.9890
Volume		16,500	-	5,000	5,000	10,000	6,328	44,500	82,000	13,500
Invoice Demand Dollars		\$ 96,878	\$ -	\$ 18,306	\$ 42,501	\$ 58,714	\$ 18,636	\$ 425,990	\$ 900,631	\$ 175,352
<b>Total Monthly Savings/(Costs)</b>		<b>\$ 30,690</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 6,200</b>	<b>\$ 18,600</b>	<b>\$ 27,150</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

PBR Schedule-4



		Texas Gas								
Contract		#29759	#36788	#36733	#31097	#34380	#34674/37063	#29760	#29762	#29763
Benchmark Demand Rate		\$ 7.2326	\$ -	\$ 3.4249	\$ 9.1118	\$ 7.233	\$ 6.7686	\$ 8.9552	\$ 10.2747	\$ 12.1510
Volume		16,500	-	5,000	5,000	10,000	6,328	44,500	82,000	13,500
Total Demand Dollars		\$ 119,338	\$ -	\$ 17,125	\$ 45,559	\$ 72,326	\$ 42,832	\$ 398,506	\$ 842,525	\$ 164,039
Atmos Demand Rate		\$ 5.4926	\$ -	\$ 3.4249	\$ 7.9518	\$ 5.4926	\$ 2.7550	\$ 8.9552	\$ 10.2747	\$ 12.1510
Volume		16,500	-	5,000	5,000	10,000	6,328	44,500	82,000	13,500
Invoice Demand Dollars		\$ 90,628	\$ -	\$ 17,125	\$ 39,759	\$ 54,926	\$ 17,434	\$ 398,506	\$ 842,525	\$ 164,039
<b>Total Monthly Savings/(Costs)</b>		<b>\$ 28,710</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 5,800</b>	<b>\$ 17,400</b>	<b>\$ 25,398</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

PBR Schedule-4



		Texas Gas								
Contract		#29759	#36788	#36733	#31097	#34380	#34674/37063	#29760	#29762	#29763
Benchmark Demand Rate		\$ 7.7314	\$ -	\$ 3.6611	\$ 9.7402	\$ 7.731	\$ 7.2354	\$ 9.5728	\$ 10.9833	\$ 12.9890
Volume		16,500	-	5,000	5,000	10,000	6,328	44,500	82,000	13,500
Total Demand Dollars		\$ 127,568	\$ -	\$ 18,306	\$ 48,701	\$ 77,314	\$ 45,786	\$ 425,990	\$ 900,631	\$ 175,352
Atmos Demand Rate		\$ 5.8714	\$ -	\$ 3.6611	\$ 8.5002	\$ 5.8714	\$ 2.9450	\$ 9.5728	\$ 10.9833	\$ 12.9890
Volume		16,500	-	5,000	5,000	10,000	6,328	44,500	82,000	13,500
Invoice Demand Dollars		\$ 96,878	\$ -	\$ 18,306	\$ 42,501	\$ 58,714	\$ 18,636	\$ 425,990	\$ 900,631	\$ 175,352
<b>Total Monthly Savings/(Costs)</b>		<b>\$ 30,690</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 6,200</b>	<b>\$ 18,600</b>	<b>\$ 27,150</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

PBR Schedule-4



		Texas Gas								
Contract		#29759	#36788	#36733	#31097	#34380	#34674/37063	#29760	#29762	#29763
Benchmark Demand Rate		\$ 7.4820	\$ -	\$ 3.5430	\$ 9.4260	\$ 7.482	\$ 7.0020	\$ 9.2640	\$ 10.6290	\$ 12.5700
Volume		16,500	-	5,000	5,000	10,000	6,328	35,568	81,799	8,838
Total Demand Dollars		\$ 123,453	\$ -	\$ 17,715	\$ 47,130	\$ 74,820	\$ 44,309	\$ 329,502	\$ 869,442	\$ 111,094
Atmos Demand Rate		\$ 5.6820	\$ -	\$ 3.5430	\$ 8.2260	\$ 5.6820	\$ 2.8500	\$ 9.2640	\$ 10.6290	\$ 12.5700
Volume		16,500	-	5,000	5,000	10,000	6,328	35,568	81,799	8,838
Invoice Demand Dollars		\$ 93,753	\$ -	\$ 17,715	\$ 41,130	\$ 56,820	\$ 18,035	\$ 329,502	\$ 869,442	\$ 111,094
<b>Total Monthly Savings/(Costs)</b>		<b>\$ 29,700</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 6,000</b>	<b>\$ 18,000</b>	<b>\$ 26,274</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

PBR Schedule-4



		Texas Gas								
Contract		#29759	#36788	#36733	#31097	#34380	#34674/37063	#29760	#29762	#29763
Benchmark Demand Rate		\$ 7.7314	\$ -	\$ 3.6611	\$ 9.7402	\$ 7.731	\$ 7.2354	\$ 9.5728	\$ 10.9833	\$ 12.9890
Volume		16,500	-	5,000	5,000	10,000	6,328	21,802	67,865	4,625
Total Demand Dollars		\$ 127,568	\$ -	\$ 18,306	\$ 48,701	\$ 77,314	\$ 45,786	\$ 208,706	\$ 745,382	\$ 60,074
Atmos Demand Rate		\$ 5.8714	\$ -	\$ 3.6611	\$ 8.5002	\$ 5.8714	\$ 2.9450	\$ 9.5728	\$ 10.9833	\$ 12.9890
Volume		16,500	-	5,000	5,000	10,000	6,328	21,802	67,865	4,625
Invoice Demand Dollars		\$ 96,878	\$ -	\$ 18,306	\$ 42,501	\$ 58,714	\$ 18,636	\$ 208,706	\$ 745,382	\$ 60,074
<b>Total Monthly Savings/(Costs)</b>		<b>\$ 30,690</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 6,200</b>	<b>\$ 18,600</b>	<b>\$ 27,150</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

**Case No. 2020-00289**  
**Atmos Energy Corporation, Kentucky Division**  
**Staff Post-Hearing DR Set No. 1**  
**Question No. 1-05**  
**Page 1 of 1**

**REQUEST:**

Provide the design day demand Atmos used to determine the transportation and outside storage requirements for its Kentucky distribution system (or systems, if planning is conducted separately) for each of the last five years, explain how Atmos calculates its design day demand, and explain how Atmos's design day demand in a given year relates to its projected peak demand.

**RESPONSE:**

To see the design day demand Atmos Energy used to determine the transportation and outside storage requirements for its Kentucky distribution systems, please see Attachment 1, which outlines Atmos Energy's Design Day for Kentucky for the past five years.

Please see Attachment 2, which explains how Atmos Energy calculates its design day demand. The Company does not calculate a projected peak demand, but rather, holds transportation and storage requirements that would enable it to meet its design day demand.

**ATTACHMENTS:**

Staff PH\_1-05\_Att1 - Design Day Demand.xlsx  
Staff PH\_1-05\_Att2 - Design Day Methodology.pdf

Respondent: Brannon C. Taylor

Kentucky Design Day Demand	
	Design Day
Winter 2016-2017	313,060
Winter 2017-2018	314,559
Winter 2018-2019	314,428
Winter 2019-2020	310,542
Winter 2020-2021	310,986
Winter 2021-2022	311,340

# Atmos Energy Corporation

## Gas Forecasting Process & Design Day Methodology

### Introduction

Atmos reviews its forecasting and design day methodology on a yearly basis. In 2007, 2009 and 2011, Atmos made improvements to its forecasting and design day methodology with guidance from a statistical expert. Dr. Russell Robins from Tulane University consulted with Atmos to enhance Atmos' forecasting methodology by minimizing the subjective selection of data and allowing statistical tests, including the Quant-Andrews Break Point, to dictate the factors utilized in establishing forecasting and design day studies. Atmos also incorporated utilizing wind as an additional variable in its regression.

In 2016, Atmos reviewed its methodology in response to recommendations identified by Exeter, a consultant for the Tennessee Regulatory Authority, during the process of the Tri-annual review of the performance based ratemaking mechanism rider. As a result of this assessment, Atmos reviewed several recommendations as to how to address the potential underestimation of customer usage under extremely cold conditions and determined that the method which provided the best overall performance was to add an additional HDD variable (Peak Weather Variable) which is calculated in the same manner as HDD, but with a base temperature different than 65 °F. This appropriate base temperature is selected iteratively as that temperature which gives the highest overall model R-square. The net effect of this change is to more accurately estimate customer usage on the colder days in the dataset. Dr. Russell Robbins reviewed the approach and recommended this methodology.

As a result of the above review, in 2016 a change to the design day weather criteria was also made. Instead of using the coldest day since 1970, the decision was made to begin using a design day event with a probability of occurrence of once in 30 years. In order to implement this, Marquette Energy Analytics' GasDay Lab (formerly called Marquette University's GasDay Lab) was contracted to provide Atmos with an event (Design Day HDD, Prior Day HDD, and design day wind) which corresponds to a 1 event in 30 year probability for each of the 40 weather stations used in Atmos territories for design day calculations. Marquette Energy Analytics has been providing load forecasting models and design day calculations to the Natural Gas Industry since 1999. Dr. Russell Robins reviewed Marquette Energy Analytics' GasDay Lab design day conditions and determined that their methods generated reasonable results.

In 2017, Atmos reviewed the use of the Quandt-Andrews Breakpoint Test after observing that a change made to the approximations used within versions of Eviews later than version 6, resulted in a minimum of three years used in the majority of our studies. Dr. Russell Robins recommended an evaluation with different years of data, choosing the optimum dataset based on the adjusted R-square. Dr. Robbins also recommend making the model more robust by requiring a minimum number of data points colder than the Peak Weather Variable be included within the dataset.

In 2018, Atmos reviewed the use of Microsoft Azure's Machine Learning Studio. In an attempt to gain easier access to data and better access to powerful forecasting techniques, Atmos has transitioned to Azure to run the short term forecast models using the Boosted Tree and Neural Network models.



In 2019, Atmos noticed that by using the max R-squared criteria, occasionally, this criteria changed the chosen data set significantly. With large changes in the data set, this could lead to significant changes in the peak load forecast. As a practical matter, Dr Robins recommended that the start date of the data set used in the analysis change by no more than 2 years from one year to the next without outside factors that indicate a specific date range. After thorough testing, this restriction (changing the data set by no more than 2 years) results in modest year over year changes in the peak forecasts.

In 2020, Atmos transitioned to using Microsoft Azure's Machine Learning Studio to run design day models. Eviews is no longer used.

### **Dr. Russell Robins Background**

Professor Robins received his doctorate in economics in 1982 from the University of California at San Diego. He joined the Tulane University's Freeman School of Business in 1989. From 1995 to 1999 he served as Faculty Director and Associate Dean of Academic Programs. Dr. Robins served as Associate Dean and Director of the Stewart Center for Executive Education at Tulane University from 2002 to 2011.

Prior to his appointment at the business school, he was a senior econometrician at Transworld Oil Ltd., in Hamilton, Bermuda. He also worked as an economist with Data Resources in Lexington, Massachusetts and as a senior econometrician with Shearson Lehman/American Express in New York.

Dr. Robins' primary research interests are in financial economics, applied econometrics, and forecasting. His research has been published in a number of leading journals including *Econometrica*, *Management Science*, and *the Review of Economics and Statistics*.

Dr. Robins has worked on gas utility forecasting since 1999.

### **Forecasting Process**

The objective of the forecasting process is to accurately forecast the volumetric natural gas requirements of Atmos' customers and secure the appropriate pipeline transportation needed in providing reliable service to our firm sales customers in the most cost effective manner. Historical information for all load studies cover the period from July 2004 through March 2020. The following data was used to develop a design day forecast:

1. Daily pipeline volumes
2. Daily electronic volumetric data for interruptible and transportation customers
3. Monthly volumetric data for transportation and interruptible customers
4. Daily Contract Day (9 AM – 9 AM) Heating Degree Days (HDDs)
5. Daily Company Owned Storage (Storage field) Injection volumes (where applicable)
6. Daily Company Owned Storage (Storage field) Withdrawal volumes (where applicable)
7. Local production
8. Daily Contract Day (9 AM – 9 AM) Wind speeds

### **Process for Determination of Appropriate HDD for Design Day Requirements**

The Company's standard methodology is to use the weather conditions with a probability of occurrence of once in 30 years. This consists of a set of conditions including Design Day HDD, prior day HDD and design day average wind speed as determined by Marquette. All parameters are determined as the hourly average over the standard gas day (9-9 in the central time zone).

### **Design Day Volumetric Requirements**

Once the appropriate firm requirements are calculated, Atmos uses the Design Day Conditions to develop the design day volumetric requirements.

1. Atmos uses a linear regression model to produce design day forecasts. The linear regression model relates the dependent variable, today's DTH, to the following independent variables:
  - a. Today's HDD
  - b. Today's Peak Weather Variable
  - c. Yesterday's HDD (HDD(-1))
  - d. Yesterday's DTH (DTH(-1))
  - e. Today's Wind
  - f. Day of the week variables
  - g. Monthly variables
  
2. The design day volumetric requirements are the result of the linear regression model plus a margin of error.
  - a. To produce the forecast from the linear regression model the following information is used for the terms described in #1:
    - i. The Design Day HDD from the 1-in-30 conditions is used for today's HDD and as the basis for Peak Weather Variable
    - ii. The HDD(-1) from the 1-in-30 conditions is used for yesterday's HDD.
    - iii. The wind from the 1-in-30 conditions is used for today's wind.
    - iv. A separate regression model is used to estimate yesterday's DTH(-1).
  - b. The margin of error is developed using the standard error of the forecast and a 95% confidence interval.

**Case No. 2020-00289**  
**Atmos Energy Corporation, Kentucky Division**  
**Staff Post-Hearing DR Set No. 1**  
**Question No. 1-06**  
**Page 1 of 1**

**REQUEST:**

Identify and describe the extent to which, if any, Atmos has contracted for firm transportation and storage entitlements in excess of those necessary to meet Atmos's projected design day demand or its projected peak demand in the last five years, and explain why Atmos contracts for firm transportation and storage entitlements in excess of that necessary to meet Atmos's projected design day demand or its projected peak demand.

**RESPONSE:**

Please see Attachment 1, which is a "Reserve Margin" document that outlines design day demand, pipeline capacity, delivered service, behind gate storage withdrawal capabilities and the reserve margin for with and without behind gate storage withdrawal. The reserve margin has consistently stayed below 3.5%.

These minimum reserve margins alleviate the risk of not having enough capacity if Design Day conditions were ever exceeded. Although these instances are rare, design day weather conditions were exceeded during Winter Storm Uri in some areas Atmos Energy services.

**ATTACHMENT:**

Staff PH\_1-06\_Att1 - Reserve Margin.xlsx

Respondent: Brannon C. Taylor

	Design Day	Pipeline Capacity	Delivered Service	Behind Gate Withdrawals	Total Capacity without Storage	Total Capacity with Storage	Reserve Margin without Storage	Reserve Margin with Storage
Winter 2016-2017	313,060	233,328	1,500	78,749	234,828	313,577	-33.31%	0.16%
Winter 2017-2018	314,559	234,328	2,000	79,031	236,328	315,359	-33.10%	0.25%
Winter 2018-2019	314,428	238,328	2,500	80,831	240,828	321,659	-30.56%	2.25%
Winter 2019-2020	310,542	237,328	2,500	80,831	239,828	320,659	-29.49%	3.16%
Winter 2020-2021	310,986	236,328	2,500	80,831	238,828	319,659	-30.21%	2.71%
Winter 2021-2022	311,340	237,000	2,500	82,852	239,500	322,352	-30.00%	3.42%

**Case No. 2020-00289**  
**Atmos Energy Corporation, Kentucky Division**  
**Staff Post-Hearing DR Set No. 1**  
**Question No. 1-07**  
**Page 1 of 1**

**REQUEST:**

For each month from June 2016 through May 2021, provide the (1) Inside FERC first of the month posting for ANR-Louisiana, (2) the Inside FERC first of the month posting for Texas Gas Zone 1, (3) the Inside FERC first of the month posting for Tennessee Louisiana 500 Leg, (4) the Inside FERC first of the month posting for South Louisiana-Henry Hub, (5) the Inside FERC first of the month posting for Trunkline Louisiana, (6) the New York Mercantile Exchange Settled Closing Price, and (7) the Inside FERC first of the month posting for Texas Gas Zone SL.

**RESPONSE:**

Please see confidential Attachment 1, which contains the Inside FERC FOM prices for the months June 2016 through May 2021 for the six indices requested, and see confidential Attachment 2, which contains the NYMEX Settle closing prices for the months June 2016 through May 2021. Our subscription with S&P Global Platts does not permit us to provide this information publicly and thus the attachments should be handled confidentially.

**ATTACHMENTS:**

Staff PH\_1-07\_Att1 - Inside FERC June 2016-May 2021 (CONFIDENTIAL).pdf  
Staff PH\_1-07\_Att2 - NYMEX June 2016-May 2021 (CONFIDENTIAL).pdf

Respondent: Brannon C. Taylor

**Case No. 2020-00289**  
**Atmos Energy Corporation, Kentucky Division**  
**Staff Post-Hearing DR Set No. 1**  
**Question No. 1-08**  
**Page 1 of 1**

**REQUEST:**

Describe the annual activity involved in the pipeline segmentation arrangement with Atmos Mississippi.

**RESPONSE:**

Each year between February and March, Atmos Energy Gas Supply reviews the segmentation arrangements between Atmos Mississippi and Atmos Kentucky. The following items are reviewed:

1. Capacity needs
2. Receipt/Supply changes from previous winter
3. Changes to pipeline FERC gas tariff that would impact segmentation
4. Changes to how pipelines restrict capacity that could impact segmentation
5. Viable alternatives

The proposed release is then reviewed by the Legal Department to ensure that it complies with applicable FERC capacity release rules and is posted as a biddable release on the appropriate pipeline electronic bulletin boards.

Respondent: Brannon C. Taylor

**Case No. 2020-00289**  
**Atmos Energy Corporation, Kentucky Division**  
**Staff Post-Hearing DR Set No. 1**  
**Question No. 1-09**  
**Page 1 of 1**

**REQUEST:**

If the asset managers are not releasing capacity, explain the arrangements through which the asset managers use Atmos's pipeline capacity to generate cost savings.

**RESPONSE:**

It is our understanding that the asset managers routinely use Atmos Energy's pipeline capacity to transport gas to 3rd parties and sell them delivered gas. This arrangement is typically referred to as a "delivered sale."

Alternatively, asset managers can use the capacity to move natural gas from one location to another location to take advantage of price arbitrage opportunities.

Storage capacity can also be used for the purposes of price arbitrage.

Respondent: Brannon C. Taylor