155 FERC ¶ 61,105
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Cheryl A. LaFleur, Tony Clark,
and Colette D. Honorable.

Total Gas & Power North America, Inc., Total, S.A., Total Gas & Power, Ltd., Aaron Hall, and Therese Tran f/k/a Nguyen — Docket No. IN12-17-000

ORDER TO SHOW CAUSE AND NOTICE OF PROPOSED PENALTY

(Issued April 28, 2016)

1. Pursuant to Rule 209(a)(2) of the Commission's Rules of Practice and Procedure,[1] the Commission's Revised Policy Statement on Enforcement,[2] and the Commission's Statement of Administrative Policy Regarding the Process for Assessing Civil Penalties,[3] the Commission directs Total Gas & Power North America, Inc. (TGPNA), Aaron Hall, and Therese Tran f/k/a Nguyen (Tran) to show cause why they should not be found to have violated section 4A of the Natural Gas Act (NGA) and section 1c.1 of the Commission's regulations through a scheme to manipulate the price of natural gas at four locations in the southwest United States between June 2009 and June 2012.[4] The Commission also directs TGPNA to show cause why it should not be required to disgorge unjust profits of $9.18 million, plus interest. The Commission further directs TGPNA, Hall, and Tran to show cause why they should not be assessed civil penalties in the following amounts:

- *TGPNA:* $213,600,000
- *Aaron Hall*: $1,000,000 (jointly and severally with TGPNA)
- *Therese Tran* $2,000,000 (jointly and severally with TGPNA)

2. In addition, the Commission directs TGPNA's ultimate parent company, Total, S.A. (Total), and TGPNA's affiliate, Total Gas & Power, Ltd. (TGPL), to show cause

[1] 18 C.F.R. § 385.209(a)(2) (2015).

[2] *Enforcement of Statutes, Regulations and Orders*, 123 FERC ¶ 61,156, at PP 35-36 (2008).

[3] *Process for Assessing Civil Penalties*, 117 FERC ¶ 61,317, at P 6 (2006).

[4] 15 U.S.C. § 717c-1 (2012); 18 C.F.R. § 1c.1 (2015) (Anti-Manipulation Rule).

why they should not be held liable for TGPNA's, Hall's, and Tran's conduct and held jointly and severally liable for their disgorgement and civil penalties based on Total's and TGPL's significant control and authority over TGPNA's daily operations.[5]

3. Respondents may seek a modification to the penalty amounts as warranted.[6] Pursuant to Rule 213(a) of the Commission's Rules of Practice and Procedure,[7] the Commission directs Respondents to file an answer with the Commission within 30 days of the date of this order. Respondents may answer jointly or separately. Office of Enforcement Staff (OE Staff) may reply to that answer within 30 days of the filing of Respondents' answer(s). The Commission will consider these pleadings as part of its review of this proceeding.

4. This case presents allegations by OE Staff that TGPNA, Hall, and Tran violated section 4A of the NGA and section 1c.1 of the Commission's regulations, which prohibit natural gas market manipulation. These allegations arose out of an investigation conducted by OE Staff and are described in the Enforcement Staff Report and Recommendation submitted to the Commission on April 1, 2016 (OE Staff Report).[8] Issuance of this order does not indicate Commission adoption or endorsement of the OE Staff Report.

5. The OE Staff Report alleges that TGPNA, through Hall and Tran, deliberately traded to affect monthly natural gas indexes by transacting at prices and in ways that were designed to move index prices in a direction that benefited its related derivative positions. Specifically, OE Staff alleges that, principally through Hall and Tran, TGPNA devised and engaged in uneconomic trades of monthly physical fixed price natural gas during bidweek at the regional trading hubs of Southern California Gas Co. (SoCal), El Paso Natural Gas Co., Permian Basin (Permian), West Texas, Waha (Waha), and El Paso, San Juan Basin (San Juan), and then reported those trades to publications for inclusion in monthly index prices. OE Staff alleges that TGPNA made and reported these trades for the purpose of affecting the published monthly index prices and benefiting related positions whose value was tied to those same indexes. OE Staff alleges that TGPNA engaged in this conduct between June 2009 and June 2012

[5] For ease of reference, this order will refer to TGPNA, Total, TGPL, Hall, and Tran collectively as Respondents.

[6] *See* 18 C.F.R. § 385.209(b) (2015). We also note that under 15 U.S.C. § 717t-1(c), the Commission "shall take into consideration the nature and seriousness of the violation and the efforts to remedy the violation."

[7] 18 C.F.R. § 385.213(a) (2015).

[8] The OE Staff Report is attached to this order. The OE Staff Report describes the background of OE Staff's investigation, findings and analysis, and proposed sanctions.

and is recommending penalties and disgorgement based on TGPNA's trading in 38 point-months during this period.[9]

6. Based on the allegations contained in the OE Staff Report, the Commission orders Respondents to respond to this order as set forth above.[10] This order also is the notice of proposed penalty required by the NGA.[11] In the answer to this order, Respondents have the option to pay the proposed assessment or contest the order. If Respondents choose to contest the order or the proposed assessment, the Commission will issue a further order.[12] If the record is sufficient, the Commission may assess a civil penalty. If a hearing is needed, the Commission will issue a hearing order and indicate whether the Commission will conduct a paper hearing or a hearing before an ALJ. If the Commission chooses to conduct a paper hearing, it will issue an order on the paper hearing record. If the matter is set for hearing before an ALJ, the ALJ will conduct a hearing under Part 385 of the Commission's regulations, and, unless otherwise directed in a hearing order, the ALJ will issue an Initial Decision and determine whether a violation or violations occurred. If a violation is found, the Initial Decision will recommend any appropriate penalty, taking into account factors described in the Policy Statement on Enforcement.[13] The Commission will then consider the Initial Decision of the ALJ and any exceptions filed. If the Commission determines that there is a violation, the Commission will issue an order and may assess any appropriate penalty. In accordance with NGA section 19(a) and Rule 713 of the Commission's Rules of Practice and Procedure,[14] Respondents may request a rehearing no later than 30 days after the issuance of the order assessing the penalty. Respondents can appeal a final Commission order to a United States Court of Appeals within the appropriate time for review of a Commission order. If the Commission finds a violation and assesses a penalty, if such penalty is not paid within 60

[9] As noted in the OE Staff Report, a point-month combines the relevant trading location with the relevant bidweek period. OE Staff alleges that, in some instances, TGPNA executed its scheme at multiple locations during a single bidweek period.

[10] Under 18 C.F.R. § 385.213(c) (2015), Respondents must file an answer that provides a clear and concise statement regarding any disputed factual issues and any law upon which they rely. Respondents must also, to the extent practicable, admit or deny, specifically and in detail, each material allegation contained in the OE Staff Report and set forth every defense relied upon. Failure to answer an order to show cause will be treated as a general denial and may be a basis for summary disposition under Rule 217. 18 C.F.R. § 385.213(e)(2) (2015).

[11] 15 U.S.C. § 717t-1(b) (2012); *Process for Assessing Civil Penalties*, 117 FERC ¶ 61,317 at PP 6-7.

[12] *Process for Assessing Civil Penalties*, 117 FERC ¶ 61,317 at PP 6-7.

[13] *Id.*

[14] *See* 15 U.S.C. § 717r (2012); 18 C.F.R. § 385.713(d)(1) (2015).

days of assessment, the Commission will institute a collection action in an appropriate United States District Court.[15]

7. The Commission authorizes OE Staff to disclose information obtained during the course of the investigation as necessary to advance this matter.

The Commission orders:

(A) Within 30 days of the date of this order, Respondents must file an answer in accordance with Rule 213 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213 (2015), showing cause why TGPNA, Hall, and Tran should not be found to have violated 15 U.S.C. § 717c-1(a) (2012) and 18 C.F.R. § 1c.1 (2015) with respect to their trading of physical natural gas at SoCal, Permian, Waha, and San Juan during bidweek between June 2009 and June 2012. Respondents must also show cause why Total and TGPL should not be held liable for the conduct of TGPNA, Hall, and Tran. Respondents may answer jointly or separately.

(B) Within 30 days of the date of this order, Respondents must file an answer in accordance with Rule 213 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213 (2015), showing cause why the alleged violations should not warrant the assessment of civil penalties in the amount of $213,600,000 against TGPNA (jointly and severally with Total and TGPL), $1,000,000 against Hall (jointly and severally with TGPNA, Total, and TGPL), and $2,000,000 against Tran (jointly and severally with TGPNA, Total, and TGPL), and require disgorgement (jointly and severally against TGPNA, Total, and TGPL) in the amount of $9.18 million plus interest, or a modification to that amount as warranted.

(C) In the answer(s), Respondents should address any matter, legal, factual, or procedural, that they would urge the Commission to consider in this matter. To the extent that Respondents cite any material not cited in the OE Staff Report, Respondents are directed to file non-publicly one copy of such material on CD-ROM or DVD in the captioned dockets and to serve a copy of same on OE Staff.

[15] *Process for Assessing Civil Penalties*, 117 FERC ¶ 61,317 at P 7.

(D) Within 30 days of the filing of the answer(s) by Respondents, OE Staff may file a reply with the Commission.

By the Commission. Chairman Bay is not participating.

( S E A L )

Kimberly D. Bose,
Secretary.

# APPENDIX A

**FEDERAL ENERGY REGULATORY COMMISSION**

# Total Gas & Power North America, Inc., Total, S.A., Total Gas & Power, Ltd., Aaron Hall, and Therese Tran f/k/a Nguyen

**Docket No. IN12-17-000**

## Enforcement Staff Report and Recommendation

Office of Enforcement

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The staff of the Office of Enforcement (Enforcement) recommends that the Federal Energy Regulatory Commission (FERC or Commission) issue to Total Gas & Power North America, Inc. (TGPNA) and two TGPNA trading managers, Aaron Hall and Therese Tran f/k/a Nguyen (Tran),[1] an order to show cause why, as described in this Report, (1) they should not be found to have violated section 4A of the Natural Gas Act (NGA) and section 1c.1 of the Commission's regulations through a scheme to manipulate the price of natural gas at four locations in the southwest United States between June 2009 and June 2012;[2] (2) TGPNA should not be required to disgorge unlawfully obtained profits from the scheme; and (3) they should not be held liable for civil penalties, including TGPNA being held jointly and severally liable for Hall's and Tran's penalties. In addition, Enforcement recommends that the Commission issue to TGPNA's parent company, Total, S.A. (Total), and TGPNA's affiliate, Total Gas & Power, Ltd. (TGPL), an order to show cause why they should not be held liable for TGPNA's, Hall's and Tran's conduct and held jointly and severally liable for their disgorgement and civil penalties based on Total's and TGPL's significant control and authority over TGPNA's daily operations. TGPNA, Total, TGPL, Hall, and Tran will be referred to collectively as Respondents.[3]

# I. Executive Summary

This is a case about two trading managers on TGPNA's West Desk who directed and engaged in a cross-market manipulation scheme involving physical trading in one market for the purpose of benefiting related positions in another market. The West Desk's scheme focused on a period called bidweek, which is the last five business days of the month when certain publications calculate monthly index prices at various trading hubs based on reported trades. Over a period of three years at four of the most heavily traded markets in the southwestern United States, the West Desk, through Hall and Tran, traded monthly physical fixed price natural gas during bidweek at prices and in ways designed to move published index prices at those locations to benefit its derivative financial and physical positions whose value was tied to those indexes.

This scheme operated in two phases. *First*, before and during bidweek, the West Desk accumulated large positions of physical and financial natural gas products exposed to monthly index prices, giving it the motivation and ability to manipulate prices.

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[1] During the relevant period at issue in this matter and most of Enforcement's investigation of TGPNA, Tran's last name was Nguyen. Therefore, the data and documents in the investigative record, including the transcripts of her testimony, refer to her as Nguyen.

[2] 15 U.S.C. § 717c-1 (2012); 18 C.F.R. § 1c.1 (2015) (Anti-Manipulation Rule).

[3] Enforcement recognizes that each entity played a different role in this matter, but refers to them collectively as Respondents for ease of reference.

*Second*, the West Desk traded a dominant market share of monthly physical fixed price natural gas during bidweek to inflate or suppress the volume-weighted average price and then reported these trades for inclusion in the calculation of the published monthly index prices to which it was exposed. As a result of this conduct, Respondents reaped millions of dollars in ill-gotten profits from the related derivative positions they had accumulated, and, in so doing, they harmed other market participants who purchased or sold natural gas at manipulated prices. The West Desk's conduct also undermined the credibility of natural gas indexes in the southwestern United States.

The West Desk traders could not ignore the clear and inherent connection between their physical fixed price bidweek trades and related benefiting positions. After all, the same traders—Hall and Tran—built the benefiting positions *and* traded the physical fixed price gas that affected the value of those positions. And the West Desk tracked the relationship between its fixed price trades and benefiting positions in real time. The West Desk traders also fully understood the relationship between their fixed price bidweek trading and related benefiting positions. As Hall testified, he discussed "the fact that fixed price trades in Bid Week can affect the basis position . . . with everyone in the gas industry."[4] Similarly, Tran readily acknowledged that "when [she] trade[s] fixed price physical, it goes into the average of the index."[5]

Enforcement finds that, tempted by this clear and well-understood connection between its fixed price trading and related positions, the West Desk manipulated index prices during a three-year period between June 2009 and June 2012 (Relevant Period) at four heavily traded locations in the southwestern United States—Southern California Gas Co. (SoCal); El Paso Natural Gas Co., Permian Basin (Permian); West Texas, Waha (Waha); and El Paso, San Juan Basin (San Juan).[6] In a majority of the months during the Relevant Period, the West Desk established physical and financial positions going into bidweek to benefit from and assist with its manipulation of index prices at the Relevant Locations. Then, in the months when market conditions favored doing so, the West Desk took affirmative acts in furtherance of the scheme by executing a pattern of fixed price trades designed to move the index in a direction that benefited its pre-bidweek positions. Enforcement finds the West Desk took such affirmative acts in many months during the Relevant Period, but identifies 38 point-months during this period when the desk's

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[4] Testimony of Aaron Hall, Vol. I at 130:12-17 (July 26, 2012) (Hall Test. Vol. I).

[5] Testimony of Therese Nguyen, Vol. I at 169:11-170:12 (July 24, 2012) (Nguyen Test. Vol. I). Nguyen admitted that "it has happened where, if [she was] trading physical, it could" have benefitted her position in basis swaps. *Id.* at 170:1-9.

[6] This Report will refer to these four locations as the "Relevant Locations" and these locations' published monthly index prices as the "Relevant Indexes." The official names of the Relevant Indexes are Southern Border, SoCal; El Paso, Permian Basin; Waha; and El Paso, San Juan Basin.

trading behaviors were most prominent, its market concentration had the most material impact on prices, and it had the most significant financial incentive in terms of the relationship between its physical trading and related benefiting positions.[7] Enforcement uses these 38 point-months for purposes of calculating market harm and calculating and recommending penalties and disgorgement in this Report.[8]

During the Relevant Period, when the West Desk traders were "bullish" in their benefiting positions (i.e., when they established related positions that would benefit from higher prices), they tried to increase the monthly index; when the traders were "bearish," on the other hand, then they did the opposite. They employed several trading tactics to achieve preferred price levels, including timing trades to coincide with sharp and favorable trends in NYMEX prices, and engaging in what appeared to the company's Vice President of Risk Control, Natalie Bondareva, as "suboptimal" trading, which, according to her, includes "buying or selling at a loss, high trade concentration, [and] buying and selling at the same price."[9]

The evidence that TGPNA's West Desk engaged in this scheme is strong. This evidence, detailed in Section III of this Report, includes:

- Testimony from two former TGPNA employees who separately and independently "blew the whistle" on the manipulative conduct to the Commission and to the Commodity Futures Trading Commission (CFTC). One witness, Matthew Wilson, spent three years as a trader and analyst on the West Desk, reporting directly to Hall and Tran. He began assisting with bidweek trading in January 2012 at Tran's request and, soon after, he discovered that the West Desk was profiting by committing fraud during bidweek. Wilson subsequently admitted in sworn testimony that, after discovering the fraud, he continued knowingly engaging in the manipulative scheme under Tran's supervision. The second witness,

[7] A point-month combines the relevant trading location with the relevant bidweek period. In some instances, the West Desk executed its scheme at multiple locations during a single bidweek period. For example, West Desk traders manipulated indexes at two locations during the August 2011 bidweek period. This counts as two point-months. A list of the 38 point-months is attached to this Report as Appendix A.

[8] If the Commission sets this matter for a hearing, Enforcement anticipates that it will submit expert testimony regarding TGPNA's trading during the Relevant Period, and Enforcement's experts would conduct their own analyses and draw their own conclusions on the number of point-months and the market harm and disgorgement calculations.

[9] Testimony of Natalie Bondareva, Vol. II at 38:22-39:14, 63:1-9 (Nov. 25, 2013) (Bondareva Test. Vol. II). These and other bidweek trading strategies the West Desk employed are discussed in greater detail *infra* in Section III.B.

Stephen Callender, worked at TGPNA between 2006 and 2011 and discovered the scheme through his review of company position reports and his interaction with other traders. His CFTC whistleblower complaint mirrors Wilson's allegations despite the fact that he left the company in October 2011, several months before Wilson started assisting Tran with bidweek trading in January 2012.

- Trade data corroborating Wilson's and Callender's account of the West Desk's manipulative conduct. The data show that, heading into bidweek, the West Desk amassed large positions of physical and financial products exposed to monthly index prices. The data further show that the West Desk traded fixed price gas during bidweek at prices and in ways designed to influence monthly index prices to benefit its related positions, including employing trading strategies described and used by Wilson and found to be suboptimal by Bondareva.

- Contemporaneous documents showing that, during the Relevant Period, TGPNA's Compliance Department, Middle Office, Risk Control Office, and senior management raised compliance concerns with the West Desk's bidweek trading, especially with regard to its (1) very high market share of fixed price volumes during bidweek, (2) the price difference between the West Desk's fixed price trades and the rest of the market, and (3) large positions that profited from its fixed price trading.

Moreover, throughout Enforcement's investigation, Respondents failed to offer any reasonable explanation of their conduct to disprove this evidence of manipulation. Respondents' explanations lacked support in or conflicted with the trade data and contemporaneous documents. Also, their description of certain legitimate trading strategies they undertook, even if accepted as true, did not disprove the evidence of market manipulation because they could have employed such strategies in addition to manipulative ones.

The evidence also shows that the West Desk was aided in its scheme by certain tracking spreadsheets and the structure of TGPNA's trading operations. The West Desk employed sophisticated bidweek spreadsheets that monitored the success of the scheme in real time. At any time during bidweek, the traders could look at these spreadsheets for a real-time tally of their positions, a current projection of the published index price, and a real-time profit and loss (P&L) calculation. The P&L calculation factored their fixed price trades' impact on the projected index and the value of their benefiting positions. As one West Desk trader—Shaun Karimullah—testified, he monitored this spreadsheet in real time to determine how fixed price trades affected the desk's P&L.[10] In addition, in 2008, at Hall's urging, TGPNA adopted a trade accounting system that comingled all trades—physical and financial—into single regional books, allowing West Desk traders to disguise and claim ignorance for any losses they experienced on their fixed price trades during bidweek, and to offset any such losses with their gains on related positions.

Based on this evidence, Enforcement finds that the West Desk's bidweek trading scheme during the Relevant Period violated NGA section 4A and the Anti-Manipulation Rule.[11] TGPNA, through Hall and Tran, knowingly or recklessly engaged in a fraudulent scheme to manipulate the monthly index price of natural gas, and this scheme was in connection with transactions subject to the Commission's jurisdiction. TGPNA gained more than $9 million in unjust profits from the scheme, and, by skewing the fair market price of natural gas, it caused more than $89 million in harm to consumers and producers of natural gas. Also, holding Total and TGPL liable for TGPNA's conduct is necessary to prevent them from allowing their undercapitalized Houston office to manipulate United States natural gas markets for years and then avoid the consequences due to insufficient funds.

Section II of this Report provides factual background. Section III describes the West Desk's bidweek scheme. Section IV addresses Enforcement's legal analysis. Section V recommends appropriate sanctions and remedies, and Section VI contains the conclusion.

## II. Background

### A. Respondents & Other Key Entities

#### 1. TGPNA, Total, and TGPL

TGPNA is a corporation organized under the laws of Delaware with its principal place of business in Houston, Texas. It is an indirect wholly-owned subsidiary of Total S.A., which is a French company headquartered in Paris with more than 100,000 employees and oil and gas operations in more than 130 countries. Total, which reported sales of $236.1 billion in 2014, is one of the world's six "supermajor" oil companies.[12] While organized in the corporate structure as a subsidiary of Total, TGPNA actually is part of Total's trading group. Specifically, along with affiliates based in London, Geneva, and Singapore, TGPNA forms part of the trading group within Total's Global Gas & Power Division. Total's internal auditors referred to TGPNA as the "Houstonian

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[10] *See infra* Section III.D; Testimony of Shaun Karimullah at 115:12-116:5 (Sept. 6, 2012) (Karimullah Test.).

[11] 15 U.S.C. § 717c-1 (2012); 18 C.F.R. § 1c.1 (2015).

[12] Total SA News Release, Fourth Quarter and Full-Year 2014 Results, *available at* http://www.total.com/sites/default/files/atoms/files/4q14-results.pdf.

trading office" of the Gas & Power Division.[13] TGPL, also a wholly-owned subsidiary of Total, is located in London and, as a practical matter, directs Total's global trading operations—and as such exercises significant control over TGPNA.

TGPNA's primary task, like Total's other three trading teams, is to trade and market Total's production assets. TGPNA, for example, is responsible for marketing Total's production interests in Barnett and Utica Shale gas.[14] TGPNA also is responsible for marketing Total's liquefied natural gas (LNG) regasification capacity at the Sabine Pass LNG terminal in Cameron Parish, Louisiana.[15] In addition to trading Total's production, TGPNA actively trades physical natural gas and related financial products throughout the United States and Canada. TGPNA's trading volumes increased from less than 1 Bcf/day in 2001 to more than 4 Bcf/day in 2012.[16]

During the Relevant Period, Total did not have any production assets in the western United States and TGPNA did not commonly serve users or distributors of natural gas in that region. TGPNA's trading and marketing operations were carried out by approximately 20 traders divided among seven desks. While the desks were organized mainly around geographical regions, each had authority to trade in every region. Enforcement's investigation focused on the activities of traders on TGPNA's West Desk.[17] During the Relevant Period, the West Desk included Hall (director of desk until September 2011), Tran (trader from 2007-2011; director from 2011-2013), Wilson (trader from 2009-2012), and Karimullah (trader starting in April 2012).

Total and TGPL exercise direct oversight and control over TGPNA's trading operations. The Vice President of Trading at TGPNA, who historically has been seconded to Houston from Total or TGPL, reports directly to the Vice President of Trading at TGPL, who, in turn, reports to the President of the Gas & Power Division at Total. Each trader at TGPNA is delegated physical and financial trading size limits, and these limits flow directly from TGPL and Total headquarters in Paris—Total set the global limits, and TGPL in turn allocates those limits among Total's trading subsidiaries,

[13] TGPNA F 02141979 (Final Internal Audit Report, TGPNA Natural Gas: Risk Management and Transportation Agreements, October 2012).

[14] Testimony of Jean-Pierre Mateille at 87:11-18 (Mar. 18, 2014) (Mateille Test.).

[15] *Id.* at 97:13-20.

[16] TGPNA F 02141979 (Final Internal Audit Report, TGPNA Natural Gas: Risk Management and Transportation Agreements, October 2012).

[17] In 2013, TGPNA significantly changed the structure of its trade floor. The West Desk today encompasses the areas covered by the previously-titled Texas and West Desks.

including TGPNA.[18] Tom Earl, TGPNA's Vice President of Trading from 2011 to the present, characterized his relationship with TGPL as "significant," including discussions of TGPNA's trading positions and strategy.[19] Before joining TGPNA, Earl worked at TGPL and, in 2011, was selected by Total and TGPL executives to direct TGPNA's trading operations.[20] Earl succeeded Laurent Vivier, a French citizen, who had been in that role since 2006 and had also worked at Total and TGPL prior to joining TGPNA.[21] TGPL supervises daily operation of, and retains administrative control over, the information technology at the core of TGPNA's business.[22] TGPNA frequently relies on parent company guarantees in establishing credit relationships in its trading business because of a lack of sufficient credit.[23]

Total and TGPL executives were deeply involved in the details of TGPNA's trading activities. Jean-Pierre Mateille, TGPL's Vice President of Trading during the Relevant Period and currently, and Phillipe Sauquet, the President of Total's Gas & Power Division during the Relevant Period, participated in biweekly steering committee meetings with TGPNA personnel, including TGPNA's Vice President of Trading and the heads of the seven trade desks.[24] The participants of these meetings regularly discussed TGPNA trading issues, including positions, profits, and market views of the various desks.[25] Mateille also served as the chairman of TGPNA's board, participated in setting the trading strategies and budget of TGPNA, and approved certain staffing decisions as

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[18] Testimony of Thomas Earl, Vol. I at 53:22-54:2 (Aug. 28, 2012) (Earl Test. Vol. I); Testimony of Natalie Bondareva, Vol. I at 28:24-29:16 (May 16, 2013) (Bondareva Test. Vol. I); Mateille Test. at 35:24-37:11.

[19] Earl Test. Vol. I at 28:9-30:4 (noting that London officers access TGPNA's P&L reports, risk reports, and its entire book of trades and positions).

[20] Testimony of Bruce Henderson at 66:4-14 (Aug. 29, 2012) (Henderson Test.).

[21] Testimony of Laurent Vivier at 16:17-25:22 (Mar. 20, 2014) (Vivier Test.).

[22] Testimony of Mark Groeschel at 41:11-20, 51:3-54:7, 175:10-177:7 (Nov. 19, 2013) (Groeschel Test.).

[23] *See, e.g.*, TGPNA F 02326927-931 (Meeting minutes from December 14, 2012 TGPNA board meeting at which Total agreed to provide an unlimited guarantee of credit to TGPNA for an LNG contract with a third party because "[t]he creditworthiness of TGPNA is not sufficient to satisfy both [third party's] project financing requirements and [third party's] own credit requirements").

[24] Henderson Test. at 37:13-38:7; Mateille Test. at 46:21-48:13.

[25] Mateille Test. at 46:21-48:13.

well as the structure of TGPNA's trade floor.[26] While serving as president of Total's Gas & Power Division, Phillipe Sauquet attended TGPNA board meetings.[27] Total and TGPL executives were among the recipients of a February 2009 memorandum in which TGPNA President Bruce Henderson reported very high market share at various trading points, worried about resultant regulatory scrutiny, and urged increased monitoring and compliance efforts related to such trading at TGPNA.[28] Total and TGPL executives also received presentations of findings of possible market manipulation prepared by TGPNA's Risk Officer, Bondareva, in July 2012, around the time Enforcement's investigation commenced.[29]

TGPNA, Total, and TGPL are respondents in this matter.

### 2. Relevant Traders

#### a. Aaron Hall

Hall joined TGPNA in 2006 after four years at BP Energy Company (BP), where he held numerous positions, including trading natural gas on BP's west desk.[30] In 2008, TGPNA reorganized its trading floor, moving from a model involving separate financial and physical trading teams to one in which financial and physical traders overlapped and worked together in composite regional desks.[31] Under this new structure, Hall became the first head of the West Desk, which he managed until he left for a secondment at TGPL in September 2011. Hall worked at TGPL, trading in various European markets until he returned to TGPNA in 2014, where he currently serves as the Manager of the Risk Management Book.[32]

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[26] TGPNA F 02326927 (As chairman, Mateille presided over TGPNA board meetings); Mateille Test. at 40:8-42:5; Testimony of Thomas Earl, Vol. II at 202:22-203:6 (Nov. 7, 2013).

[27] *See, e.g.*, TGPNA F 02326927.

[28] Mateille Test. Ex. 8 (TGPNA F 02094992-93).

[29] *Id.* Ex. 9 (TGPNA F 01771676-77) (July 18, 2012, email from Natalie Bondareva to Jean-Pierre Mateille, Philippe Chauvain, and others, attaching analysis of bidweek trading activities between July 2011-July 2012, and identifying some months as including suboptimal trading); Mateille Test. Ex. 10 (TGPNA F 01771711-12) (July 19, 2012 email from Natalie Bondareva to Jean-Pierre Mateille, Philippe Chauvain, and others, attaching PowerPoint presentation that described bidweek trading patterns during July 2012 at Waha and December 2011 at SoCal, both of which are included in the 38 point-months identified in this Report).

[30] Hall Test. Vol. I at 12:5-16:21.

[31] *Id.* at 33:24-35:15.

[32] TGPNA F 02326943 (TGPNA Organizational Chart, June 1, 2015).

As relevant to this matter, Hall principally traded financial products in the western United States while heading TGPNA's West Desk from 2008 to mid-2011 and left it to his subordinates to execute the physical trades during bidweek. However, as manager of the West Desk, Hall was responsible for all the desk's trades during his tenure there, and he was continually aware of his subordinates' trading positions.[33] As Hall testified, "I would have [an] extremely good grasp of what the position of the West team would be at all times."[34] Hall was also instrumental during his time leading the West Desk designing and employing two tools that proved to be useful in the desk's bidweek trading strategy. First, in 2008, Hall was instrumental in moving TGPNA from a trade accounting system that tracked physical and financial positions separately to one that comingled physical and financial positions.[35] Second, Hall adopted and used bidweek spreadsheets that he and those whom he supervised employed to track and manage bidweek performance.[36]

Hall is a respondent in this matter.

#### b. Therese Tran f/k/a Nguyen

Like Hall, Tran started her natural gas trading career at BP in 2004, where she held numerous positions, including trading on BP's west desk with Hall.[37] Hall hired Tran to join him at TGPNA in 2007, and she worked as a West Desk trader under Hall's direction until mid-2011 when she replaced him as head of the desk after he assumed his position at TGPL.[38] During the Relevant Period—both before and during the time she managed the West Desk—Tran executed the vast majority of the desk's monthly physical fixed price bidweek trades at the Relevant Locations. She also executed financial trades both during and outside of bidweek. Like Hall, Tran used bidweek spreadsheets to track her positions and P&L during bidweek and, over time, she added her own features and

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[33] Testimony of Aaron Hall, Vol. II at 169:1-4 (May 7, 2014) (Hall Test. Vol. II) ("We would everyday, quite likely, talk about our views on the market and managing our positions as we got closer to bid week, just continuing to update what our basis and index positions are going into bid week."); Testimony of Aaron Hall, Vol. III at 148:7-10 (May 8, 2014) (Hall Test. Vol. III) ("We would agree upon which positions we chose to take both before and going into and during and after bid week. We would continually discuss our views, the positions we had, the positions we wanted and modify them as such.").

[34] Hall Test. Vol. I at 97:2-3.

[35] Hall Test. Vol. II at 31:16-19 (explaining that he "wanted . . . a regional book where it didn't matter if [he] had physical or financial, it was in a regional book and [he] was able to represent [his] P&L in the region").

[36] *Id.* at 47:12-25, 105:6-12; Hall Test. Vol. III at 151:5-153:16; Testimony of Therese Nguyen, Vol. III at 259:7-262:14 (June 24, 2014) (Nguyen Test. Vol. III).

[37] Nguyen Test. Vol. I at 15:18-20:25.

[38] *Id.* at 23:23-24:19.

tools to the spreadsheets.[39] When she was head of the West Desk, Tran supervised Wilson and Karimullah, whose roles in this matter are described below.

Tran is a respondent in this matter.

### c. Shaun Karimullah

Karimullah joined TGPNA in 2009, working in the Middle Office as a risk control analyst.[40] He then traded on the NYMEX Desk from approximately October 2011 until April 2012, when he began trading for the West Desk, reporting to Tran.[41] Karimullah traded physical fixed price gas at Waha during the July 2012 bidweek, which is the last of the 38 point-months identified in this Report. He did not trade monthly fixed price gas during any of the other relevant bidweek periods.

Karimullah is not a respondent in this matter.

### d. Matthew Wilson

Wilson has worked in the natural gas industry as an analyst and trader since 2007 when he worked as a trader on Louis Dreyfus's west desk.[42] Hall hired Wilson in June 2009 to join TGPNA's West Desk as an analyst and trader.[43] Shortly after Wilson started at TGPNA, Hall took him into a conference room and attempted to explain the West Desk's bidweek strategy.[44] A few weeks later, Hall asked Wilson to trade physical fixed price natural gas during bidweek.[45] At that time, Wilson did not understand Hall's bidweek strategy but, in an effort to add value to the team, he traded fixed price gas for a couple of bidweek periods until Hall stopped asking him to do so.[46] Wilson did not trade during bidweek again until 2012 when Tran asked him to assist her, although he continued to be actively involved in the desk's other trading activities.

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[39] *Id.* at 78:12-79:12; Nguyen Test. Vol. III at 259:7-262:14.

[40] Karimullah Test. at 14:16-23. The Middle Office at TGPNA is responsible for reporting trading activity, such as P&L and positions, and for ensuring that traders stay within position limits. It also maintains TGPNA's proprietary trade accounting system, which TGPNA calls "the Book." Bondareva Test. Vol. I at 13:4-6; Henderson Test. at 40:11-20.

[41] Karimullah Test. at 19:20-21:17.

[42] Testimony of Matthew Wilson, Vol. I at 22:6-25, 23:3-24:3 (May 21, 2013) (Wilson Test. Vol. I).

[43] *Id.* at 29:21-30:3, 31:24-32:12, 39:11-23.

[44] *Id.* at 50:20-51:1.

[45] *Id.* at 51:2-4.

[46] *Id.* at 51:5-52:3; Testimony of Matthew Wilson, Vol. II at 296:1-10 (Nov. 20, 2014) (Wilson Test. Vol. II).

In January 2012, Tran asked Wilson, who had been handling next-day trades and other assorted trades for the desk, to assist her with bidweek trading and managing the bidweek spreadsheets.[47] Starting in January 2012 (for the February 2012 bidweek), Wilson traded bidweek under Tran's supervision until May 2012 (for the June 2012 bidweek).[48] As discussed in greater detail in Section III.A.1, during these five bidweek periods, Tran encouraged Wilson to make bidweek trades designed to skew the published index prices at the Relevant Locations to benefit TGPNA's positions tied to those index prices. In his testimony, Wilson admitted to taking part in this scheme, and confessed that he knowingly traded monthly physical fixed price natural gas during the May and June 2012 bidweek periods with the intent to affect published index prices.[49]

After participating in this scheme for five months and coming to realize the manipulative purpose of the trading strategy, Wilson began to feel very uncomfortable with his and the West Desk's conduct.[50] Wilson decided that he could no longer participate in the scheme, and he tried to find a way off the West Desk.[51] To do this, he started placing trades in the mid-continent region as a way of distancing himself from the West Desk's activities.[52] But, these efforts failed when Tran objected to his mid-continent trades. These trades led to an argument between Tran and Wilson on the open trade floor regarding Wilson's authority to place the trades. Soon after, TGPNA management terminated Wilson, claiming that he was acting insubordinate to Tran.[53] Before his termination, however, Wilson alerted TGPNA management and government authorities about the West Desk's bidweek trading scheme. On June 3, 2012, Wilson reported his allegations in an email to the Commission's Enforcement Hotline and one

[47] Wilson Test. Vol. II at 224:17-225:4; Wilson Test. Vol. I at 67:5-25.

[48] Wilson Test. Vol. II at 222:22-223:3, 224:8-9.

[49] *Id.* at 230:22-231:19, 308:16-19.

[50] Wilson Test. Vol. I at 146:1-5; Wilson Test. Vol. II at 342:18-24, 347:8-348:5.

[51] Wilson Test. Vol. I at 146:5-7.

[52] *See Id.* at 146:15-147:4, 158:7-23; Wilson Test. Vol. II at 326:15-24, 343:6-344:15.

[53] *See* Wilson Test. Vol. I at 158:24-160:19; Wilson Test. Vol. II at 344:9-347:7. According to an email communication from Earl, Henderson and Earl made the internal decision to terminate Wilson on June 8, 2012. *See* TGPNA F 02282218 (June 11, 2012, email from Tom Earl to Jean-Pierre Mateille and Philippe Chauvain). Wilson first learned of this decision on June 26, 2012, when Henderson notified Wilson of his termination. *See* TGPNA F 01776323 (June 27, 2012, email from Bruce Henderson to Jean-Pierre Mateille and Tom Earl).

week later filed a formal whistleblower complaint with the CFTC.[54] On June 10, 2012 (the same day as his CFTC whistleblower complaint), Wilson sent an email to TGPNA's president, Bruce Henderson, that reported his concerns with the legality of the West Desk's trading activities.[55]

Wilson is not a respondent in this matter.

#### e. Stephen Callender

Callender has substantial experience in the natural gas industry, having worked as a trader, scheduler, and analyst since 1996.[56] He worked at TGPNA as a manager of storage and transportation between 2006 and 2011.[57] In addition to managing the company's storage and transportation assets, Callender also engaged in some speculative trading in the Midwest.[58] During the last six months of Callender's employment at TGPNA, Hall served as his supervisor when TGPNA moved the Midwest trading operations under the West Desk.[59] During this time, Hall told Callender to start putting on larger speculative positions in the Midwest, which Callender did.[60] In 2011, TGPNA

[54] During its investigation of Respondents, Enforcement determined that it was prohibited by federal law from informing Respondents that Wilson and Callender are whistleblowers until the commencement of a public proceeding. *See* 7 U.S.C. § 26(h)(2) (prohibiting Commission from disclosing "any information, including information provided by a whistleblower . . . which could reasonably be expected to reveal the identity of a whistleblower . . . unless and until required to be disclosed to a defendant or respondent in connection with a public proceeding"). Under Rule 209 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.209 (2015), the Commission's issuance of an order to show cause in this matter "initiate[s] a proceeding." Therefore, Enforcement now provides notice to Respondents that Callender and Wilson are CFTC whistleblowers and, contemporaneous with the issuance of the Order to Show Cause, will produce to Respondents copies of documents pertaining to the witnesses' whistleblower activity relevant to this proceeding. Enforcement recognizes that Wilson and Callender have a financial interest in this matter, and we address this interest *infra* in section IV.E.1.

[55] TGPNA F 01012412 (June 10, 2012, email from Matt Wilson to Bruce Henderson).

[56] Testimony of Steven Callender at 11:7-37:7 (Mar. 12, 2014) (Callender Test.).

[57] *Id.* at 38:11-39:23.

[58] *Id.* at 39:1-17.

[59] *Id.* at 47:22-48:12.

[60] *Id.* at 162:11-163:10.

terminated Callender, telling him that his region—the Midwest—did not fit with the company's goals.[61]

During his time at TGPNA, Callender did not trade in the West and did not engage in the West Desk's bidweek trading strategies, but he interacted with traders (who all sat in the same room) and frequently reviewed TGPNA position and P&L reports for all regions.[62] Based on this interaction and review, Callender came to understand that traders at TGPNA, including Hall and Tran, traded monthly physical fixed price natural gas during bidweek with the intent to influence index prices at multiple locations, including SoCal and Waha.[63] On October 12, 2011, more than three months before Wilson started making bidweek trades and eight months before Wilson reported his allegations to FERC and the CFTC, Callender filed a whistleblower complaint with the CFTC that specifically implicated Hall and certain officers at TGPNA's parent and affiliate companies.

Callender is not a respondent in this matter.

## B. Natural Gas Indexes

The West Desk's trading scheme involved the manipulation of natural gas indexes, which play a vital role in the energy markets within the Commission's jurisdiction. Trade press entities, including, as relevant to this matter, McGraw-Hill's Platts (Platts) and Natural Gas Intelligence ("NGI"), publish daily and monthly price indexes based on information obtained on a voluntary basis by market participants about trades at various locations. "The information is verified, compiled, and in some cases assessed, and a price representing trading activity at each location is published."[64]

These published index prices are widely used in the natural gas industry. For example, as the Commission described:

> They are often referenced in contracts as a price term; they are related to futures markets and used when futures contracts go to delivery; basis differentials in indices are used to hedge natural gas transportation costs; indices are used in many gas pipeline tariffs to settle imbalances or determine penalties; and state commissions use indices as benchmarks in reviewing the prudence of gas or electricity purchases.[65]

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[61] *Id.* at 161:9-21.

[62] *Id.* at 108:8-10, 109:22-111:15.

[63] *Id.* at 105:21-111:15.

[64] *Price Discovery in Natural Gas and Electric Markets*, 104 FERC ¶ 61,121, at P 7 (2003).

[65] *Id.* P 6.

Given the use of natural gas indexes "permeat[ing] the energy industry, the indices must be robust and accurate and have the confidence of market participants for such markets to function properly and efficiently."[66] Indeed, index manipulations during the Western Energy Crisis were a significant factor hurting consumers' and other market participants' confidence in energy markets. For example, Enron and other companies used several tactics to manipulate index prices during the Western Energy Crisis "in order to . . . benefit traders' own positions or that of their trading desk."[67] These types of manipulations prompted Congress to grant the Commission broad authority to prohibit market manipulation and enhanced penalty authority to meaningfully enforce the new law.[68]

Similar to some of the schemes that plagued markets during the Western Energy Crisis, the West Desk's conduct skewed monthly index prices to the detriment of consumers and market participants who rely on such prices.

### C. Bidweek Trading

The West Desk's scheme centered on its trading during bidweek, which is the last five trading days of each month when producers try to sell their production and consumers try to secure their core gas needs for the coming month. Based on this trading, the index publishers, such as Platts and NGI, compute the monthly index prices at various trading locations, including the Relevant Locations, by calculating the volume-weighted average price of all next-month physical fixed price trades during bidweek that are voluntarily reported to them.[69] They then publish these regional index prices. As a result, fixed price trades at a particular location during bidweek will affect the resulting

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[66] *Id.*; *see also Transparency Provisions of Section 23 of the Natural Gas Act*, 121 FERC ¶ 61,295, Order No. 704, at P 7 (2007); *BP America, Inc.*, 147 FERC ¶ 61,130, at P 40 (2014) ("A fundamental responsibility of the Commission is to ensure that prices are 'just and reasonable,' and consequently market-based pricing depends in the 'accuracy, reliability and transparency' of the index prices used to settle trades." (quotations and citations omitted)).

[67] *Final Report on Price Manipulation in W. Mkts*, Docket No. PA02-2-000, at III-5 (Mar. 26, 2003). Dynegy, for example, reached a $5 million settlement with the CFTC for "knowingly submit[ing] false information to the reporting firms in an attempt to skew those indexes to Dynegy Marketing & Trades' financial benefit." *Id.* at III-7 (citation and internal quotations omitted).

[68] *See* 15 U.S.C. § 717c-1 (2012) ("Prohibition on Market Manipulation" under NGA); 15 U.S.C. § 717t-1(a) (2012) (penalty authority of $1,000,000 per day per violation under the NGA).

[69] Physical basis transactions are also relevant for computing physical indexes, but physical basis trades are rare at the Relevant Locations.

monthly index at that location if those trades are reported to the index publishers. In turn, there are many physical and financial products whose value is tied to the published index price, including "physical index" trades (i.e., physical trades whose price is pegged to the index) and "financial basis swaps" (i.e., financial transactions that involve swapping the NYMEX settlement price with the monthly index price, plus or minus a fixed price).

During the Relevant Period, bidweek was an important component of TGPNA's trading operations. TGPNA actively participated in bidweek, both as a seller and purchaser, in various natural gas markets throughout the United States, and it voluntarily reported its bidweek transactions to both Platts' *Inside FERC Gas Market Report* (*Inside FERC* or *IFERC*) and to NGI's competing reports.[70] Its traders devoted a substantial amount of time and resources to this period, including Tran who arrived to the office earlier during bidweek—as early as 6:00 AM—than other times of the month.[71] TGPNA traders generated a significant portion of their trading profits as a result of bidweek. As Tran told a broker in 2009, "[I] make my $ in bid wk."[72]

### D. Relevant Natural Gas Products and Risks They Create

TGPNA trades both physical and financial natural gas products on Intercontinental Exchange (ICE), through over-the-counter (OTC) trades, and through brokers. The most relevant physical and financial products in this matter are discussed below.

#### 1. Physical Products

The trading desks at TGPNA trade different types of physical products across regional markets in the United States. For present purposes, the most relevant physical products are monthly fixed price, physical basis, and monthly index. All three products involve the physical delivery of gas on each day of the next month at a particular location, but the pricing structure differs for each.

In monthly fixed price transactions, the buyer and seller agree on a negotiated fixed price per unit of gas to be delivered during the next month at a specified location. In physical basis transactions, the buyer and seller agree to use the settlement price of the NYMEX futures contract for the upcoming month plus or minus a fixed sum ("basis") that accounts for the expected price differential between Henry Hub and the specified location.

In a third category of monthly physical products—index transactions—buyers and sellers agree to exchange gas for a then-unknown price to be determined by the price indexes published each month by trade publications, such as Platts' *Inside FERC* or *NGI*,

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[70] Bondareva Test. Vol. II at 50:1-15.

[71] Nguyen Test. Vol. I at 73:14-24.

[72] Testimony of Therese Nguyen, Vol. II Ex. 2-5 (TGPNA 01376887) (June 23, 2014) (Nguyen Test. Vol. II).

plus or minus a small sum. As discussed above, publications such as *Inside FERC* and *NGI* collect fixed price and physical basis transaction data provided by counterparties on a voluntary basis during bidweek to calculate monthly index prices for different market hubs across the country. The index represents the volume-weighted average price of fixed price and physical basis transactions reported to the publisher.

### 2. Financial Products

While TGPNA's traders trade several different types of financial products, the financial basis swap and financial index swap are most relevant to this matter. Both of these products are exposed to locational monthly index prices. Counterparties to a financial basis swap exchange the NYMEX settlement price plus or minus an additional sum for the monthly index price at a particular location. The buyer of the basis swap is "long" the locational index and benefits from a higher locational index price relative to the NYMEX settlement price. On the other hand, the seller of the basis swap is "short" the locational index and benefits as the locational index weakens relative to the NYMEX settlement price.

Counterparties to an index swap exchange the floating prices of the monthly index price (determined by bidweek trades before the next month begins) for the daily index price (the volume-weighted average price of all daily trades, determined at the end of the next month) at a particular location. Specifically, the buyer of an index swap pays the monthly index settlement price plus or minus a premium or discount in exchange for the daily index price. Therefore, the buyer of the index swap is "short" the monthly locational index and benefits from a lower monthly index price relative to the daily index price, and the seller is "long" the monthly locational index and benefits as the monthly index price strengthens relative to the daily index price.

### 3. Risk Exposures Created by TGPNA's Natural Gas Transactions

Although TGPNA trades both physical and financial products, it does not differentiate between physical and financial transactions for purposes of monitoring its positions and P&L. Rather, it accounts for its transactions, regardless of whether they are physical or financial, based on the broad type of risk they create. TGPNA splits these risks into three categories: (1) Basis Risk, which TGPNA also called "Paper" risk, represents the locational risk of a position relative to the price of the NYMEX contract; (2) Index Risk reflects the pricing risk associated with trading fixed price relative to physical index at a particular location; and (3) NYMEX Risk represents the risk presented by the exposure to the NYMEX contract. TGPNA also tracks fixed price risk, which represents the value at risk in a fixed price transaction (physical or financial).

In addition, and critical to the bidweek trading scheme here, TGPNA subtracts its Index positions from its Basis positions to calculate its "Print Risk," a term TGPNA uses to describe its net exposure to the published (i.e., printed) monthly index prices. TGPNA's Print Risk reflects its overall position resulting from financial and physical products that settle on, and derive value from, the published index price at a particular location.[73] Because the value of TGPNA's Print Risk position depends on the monthly index settlement price at a particular location, TGPNA's reported bidweek trades that contribute to the monthly index price also affect the profitability of its Print Risk position.

This interplay between TGPNA's reported bidweek trades, the monthly index price, and the profitability of its Print Risk position was understood by traders and managers at TGPNA. Individual traders understood that their bidweek trading activities could affect their related Print Risk positions. For example, Tran testified that because her fixed price trades "contribute to the index and some of [her] print risk has exposure to the index, [her fixed price trading] would affect the P&L associated with that print risk."[74] Similarly, when asked whether his fixed price trades affect the value of his related Print Risk positions, Hall acknowledged that "the fixed price trade that [he] did will ultimately compile part of the index . . . and that index ultimately determines the total P&L."[75] TGPNA's Vice President of Trading, Tom Earl, also testified that at "a number of different points across the United States, Total enters into transactions during bidweek which affect the settlement price of that particular geographical point during bidweek." Earl acknowledged that, in turn, those transactions, affect the value of any financial basis swaps at those points.[76]

In addition to understanding that their bidweek trading could affect their related Print Risk positions, West Desk traders also understood that their trading could be leveraged to benefit their Print Risk. For example, Tran acknowledged in her testimony that her monthly fixed price trades during bidweek may have benefited her basis swaps positions. She explained, "when I trade fixed price physical, it goes into the average of the index."[77] And when asked whether her physical fixed price trades during bidweek have benefited her basis swap positions, she said that "at times it has happened."[78] Karimullah similarly testified that "mathematically, yes," the trading of monthly fixed price gas during bidweek benefits the value of a financial basis swap position. He stated, "[a]t the end of the day, I'm sure there have been times" in the past where trading of monthly fixed price gas during bidweek has benefited the value of positions in financial basis swaps.[79] Moreover, Hall and Karimullah testified that West Desk traders used

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[73] *See* Bondareva Test. Vol. II at 69:5-11.

[74] Nguyen Test. Vol. II at 207:25-208:3, 211:3-6.

[75] Hall Test. Vol. II at 146:15-22.

[76] Earl Test. Vol. I at 88:20-89:10.

[77] Nguyen Test. Vol. I at 169:11-23.

[78] *Id.* at 170:1-12.

[79] Karimullah Test. at 68:5-18.

spreadsheets to track in real time this relationship between their fixed price trades and P&L.[80]

As discussed in Section III, the evidence shows that West Desk traders acted on their understanding that their bidweek trading activities affected and could benefit their related Print Risk positions, structuring their trades to take advantage of the relationship.

### E. Enforcement Investigation and Procedural History

On July 20, 2012, after Enforcement received and reviewed Wilson's tip to the Commission's Enforcement Hotline, the Commission issued a non-public order commencing a formal investigation into TGPNA's bidweek trading activities. As part of the investigation, Enforcement reviewed productions of data and documents submitted by TGPNA in response to subpoenas issued by Enforcement as well as CFTC Enforcement, which conducted its own independent investigation of TGPNA's trading in coordination with Enforcement. Enforcement also took sworn testimony from a number of witnesses, including current and former TGPNA employees and executives and senior executives at Total and TGPL. Enforcement also conducted interviews with former TGPNA employees and several TGPNA counterparties.

On February 10, 2015, Enforcement provided Respondents its preliminary findings. On June 5, 2015, Respondents submitted a 118-page written response. On September 21, 2015, the Office of the Secretary issued a Notice of Alleged Violations, which summarized Enforcement's allegations. After settlement discussions proved unavailing, Enforcement provided notice on November 25, 2015 pursuant to the Commission's regulations,[81] of its intention to recommend that the Commission initiate a public enforcement proceeding against Respondents. Respondents responded to this notice on December 29, 2015.[82] Enforcement has carefully considered all of Respondents' various submissions. After thorough consideration of the arguments contained in those documents, Enforcement submits this Report recommending that the Commission issue an Order to Show Cause and Notice of Proposed Penalty to Respondents.

Separately, on December 7, 2015, the CFTC accepted an offer of settlement from TGPNA and Tran, which included a $3.6 million civil penalty and a two year trader ban barring TGPNA and Tran from trading monthly physical fixed price and physical basis

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[80] Hall Test. Vol. II at 146:25-147:9; Karimullah Test. at 114:22-116:5.

[81] 18 C.F.R. § 1b.19 (2015).

[82] Also, on January 27, 2016, TGPNA, Hall, and Tran filed a Complaint against the Commission in the United States District Court for the Western District of Texas, asking the court for a declaratory judgment that a federal court must adjudicate whether they have violated the NGA. *See Total Gas & Power North America, Inc. v. FERC*, 7:16-cv-00028 (W.D. Tex. Jan. 27, 2016) (TGPNA Complaint for Declaratory Relief).

natural gas during bidweek at locations where they hold positions whose value is derived from index prices.[83] In reaching this settlement, the CFTC found that "TGPNA, through Tran and the West Desk . . . attempted to manipulate monthly index settlement prices of natural gas" at Permian, San Juan, SoCal, and Waha during the September 2011, October 2011, March 2012, and April 2012 bidweek periods.[84]

## III. The West Desk's Bidweek Trading Scheme

Under the direction of Hall and Tran, TGPNA's West Desk designed and implemented a scheme to affect monthly index prices at the Relevant Locations between June 2009 and June 2012. In the majority of months during this three-year Relevant Period, the West Desk set up its positions going into bidweek to benefit from and assist with its manipulation of index prices. Specifically, the West Desk arranged its pre-bidweek financial and physical index positions so that it had a large Print Risk position, which included basis and index positions in opposite directions and a sizeable physical index position. Then, when it decided that market conditions during bidweek were favorable for executing the scheme, the West Desk made fixed price trades to move the index in the same direction as its Print Risk position. This trading served to flatten its index position while simultaneously benefitting its Print Risk positions. The scheme involved frequent and opportunistic trading of sufficient volumes of monthly physical fixed price gas, irrespective of supply and demand fundamentals and indifferent to price, in order to move index prices in directions that benefited related Print Risk positions whose value was derived from those published index prices.

Enforcement finds that the West Desk implemented this scheme in many months during the Relevant Period, routinely trading fixed price gas in the same direction of its Print Risk position. However, as described above, for purposes of recommending penalties and disgorgement in this Report, Enforcement has focused on 38 point-months during the Relevant Period when the desk's trading behaviors were most discernable, its market concentration had the most material impact on prices, and it had the most

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[83] *Total Gas & Power N. Am., Inc. and Therese Tran*, CFTC Docket No. 16-03, at 13-15 (Dec. 7, 2015) (CFTC Settlement).

[84] *Id.* at 2. The CFTC found that as far back as 2007 TGPNA's management was aware of concerns with its bidweek trading activity, including high market share and impact of index prices and P&L. *Id.* at 4-5. However, the CFTC pursued sanctions only for TGPNA's conduct that occurred on or after August 15, 2011, the effective date of "Section 6(c)(3) of the [Commodity Exchange] Act, 7 U.S.C. § 9(3) (2012), prohibit[ing] manipulation or attempted manipulation of the price of any commodity in interstate commerce." *Id.* at 8.

significant financial incentive in terms of the relationship between its physical trading and Print Risk Position.[85]

Evidence of this scheme includes, as detailed below, (1) the credible testimony of two former employees—Wilson and Callender—who knew about and, in Wilson's case, directly participated in the scheme; (2) substantial trade data that corroborates Wilson's and Callender's testimony; and (3) contemporaneous documents reflecting that TGPNA's Compliance Department, Middle Office, Risk Control Office, and senior management had identified compliance concerns with the West Desk's trading operations, consistent with Wilson's and Callender's testimony, including the desk's large market share of fixed price trades during bidweek, impact on index prices, and appearance of "suboptimal" trading.[86] In addition, Enforcement found that West Desk traders were aided in carrying out their scheme by two additional factors. First, Hall and Tran created and used bidweek spreadsheets that helped them to predict the index, assess their bidweek trades' effect on the index, and estimate in real time the impact of their bidweek trades on the profitability of their related positions. Second, at Hall's urging, TGPNA used a regional book that comingled physical and financial positions and, thus, allowed the West Desk to disguise and offset any losses it might experience in physical fixed price trades with its gains on related Print Risk positions.

### A. Wilson and Callender Provided Independent and Matching Accounts of TGPNA's Bidweek Trading Scheme

Wilson and Callender independently provided nearly identical accounts of how the West Desk at TGPNA repeatedly and routinely engaged in a scheme to affect natural gas prices in the West. As detailed below, both of their accounts described the same general mechanics of the scheme. *First*, they described how, just prior to bidweek, the West Desk established a set of initial positions arranged in a way to give it the ability and motive to influence monthly index prices. This arrangement included establishing a large Print Risk position set to make (or lose) a sizable amount of money based on the settlement price of monthly indexes. The arrangement of initial positions also included a large physical index gas position. *Second*, Wilson and Callender described how the West

[85] As described *supra* in footnote 8, if the Commission were to set this matter for a hearing, Enforcement anticipates that it would adduce expert testimony respecting the nature, scope, and harm caused by the scheme. Enforcement's experts would conduct their own analyses and draw their own conclusions regarding the number of point-months for which Enforcement recommends penalties, as well as the market harm and disgorgement calculations.

[86] Moreover, Respondents' explanations for their trading conduct failed to rebut this strong evidence of manipulation because they lack support in and conflict with the trade data and contemporaneous documents.

Desk used its large cache of physical index gas to trade as fixed price gas during bidweek in an effort to move the index price and benefit its related Print Risk position, while flattening its physical obligations.

Wilson's and Callender's accounts of this scheme are credible. They each have substantial experience in the natural gas industry and voluntarily risked their careers in a tight-knit industry by blowing the whistle on TGPNA. As discussed above, Wilson, who has been trading natural gas since 2007, first reported his allegations in an email to the Commission's Enforcement Hotline on June 3, 2012. He observed the West Desk's operations first-hand for a continuous three-year period and ultimately came to understand, through his review of relevant data and spreadsheets and his interaction with Hall and Tran, the fraudulent purpose of their bidweek trading scheme. In his Hotline tip and subsequent testimony, he described the mechanics of the scheme in a clear and concise manner. Similarly, Callender, who has worked in the natural gas industry as a trader and in other roles since 1997, first made his allegations in a whistleblower complaint filed with the CFTC on October 12, 2011, in which he specifically implicated Hall and other officers and supervisors at TGPNA's parent and affiliate companies. Like Wilson, Callender credibly explained the scheme in detail, including how he discovered it through his review of position reports and discussions with other employees. Both accounts of the scheme are particularly credible because they largely mirror each other even though they were raised independently at different times. Callender made his whistleblower complaint more than three months before Wilson started trading bidweek under Tran in January 2012. The credibility of both accounts is further reinforced by the fact that they are corroborated by the trade data, as described in section III.B.

Each witness's testimony and account of the scheme is described below.

### 1. Wilson's Account of the West Desk's Bidweek Trading Scheme

Wilson's three-year tenure at TGPNA can be divided into two phases: an initial phase between 2009 and January 2012 during which Wilson was not involved in the West Desk's bidweek trading, and a second phase during the first half of 2012 when Wilson directly observed and knowingly participated in the desk's scheme under Tran's supervision.

#### a. Phase 1 of Wilson's Tenure at TGPNA: Hall Attempts Unsuccessfully to Teach Wilson the Bidweek Scheme

Before joining TGPNA in June 2009, Wilson learned to trade natural gas at another natural gas company based on fundamental factors of supply and demand. According to him, traders at this company developed trading strategies around their views of storage, which were based on supply and demand forecasts. As Wilson explained, the company required its traders to develop "supply and demand balance sheet[s]" before trading in order to "forecast what is going to happen to storage at the end of a month, at the end of a season, the idea being that if storage is forecast to be full or more than full, it's bearish [and if] storage is forecast to come in way under the working gas capacity, then that would be a bullish indicator."[87]

This type of fundamentals-based trading Wilson learned at his first gas employer differed significantly from TGPNA's West Desk's trading operations. As Wilson explained, at his prior employer, "I'm just trying to make an honest forecast and put a trade on, and if I win I win, if I lose I lose. To me, that's trading. You take a risk in the marketplace and make your best assessment."[88] But after he joined TGPNA, Wilson discovered that the West Desk's trading strategy was starkly different from the fundamentals-based approach he had learned. Wilson described the West Desk's contrasting trading style as "trying to put on a position and mov[ing] the market . . . into the position that you have on."[89]

Within a few months after joining TGPNA, Hall brought Wilson into a conference room and gave a tutorial explaining the West Desk's bidweek trading strategy.[90] During this 2009 meeting, Hall drew a table on a white board to try to teach Wilson the West Desk's bidweek strategy, but this was an entirely different way to approach the market to Wilson, who later admitted that he did not understand it, or "the broader strategy" at that time.[91] Although Wilson did not understand Hall's table or tutorial on bidweek trading at that time, he was willing to try to trade during bidweek as "a way . . . to add something to the team."[92] He did not know exactly what to do, but he "just traded whatever fixed price [the West Desk] was set up to trade."[93] This stopped, however, after just "one bid week, . . . maybe two bid weeks at the most" when Hall stopped asking Wilson to participate.[94]

Wilson only came to fully understand Hall's description of the bidweek strategy and the table he drew on the whiteboard almost two-and-a-half years after their 2009 meeting when, in January 2012, Tran directed him to help her in the West Desk's bidweek trading, and Wilson thereafter observed and participated in the scheme. During Wilson's testimony, he reconstructed the table that Hall had drawn for him, explaining that by "putting together my memory with what [Hall] discussed and the reinforcement I

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[87] Wilson Test. Vol. I at 23:12-20.

[88] *Id.* at 154:2-6.

[89] *Id.* at 154:8-9.

[90] *Id.* at 50:20-24. Hall similarly testified that he had one-on-one sessions where he tried to teach Wilson "about different strategies and different trades," including bidweek strategies. Hall Test. Vol. I at 76:19-77:6.

[91] Wilson Test. Vol. I at 50:20-51:11.

[92] *Id.* at 51:5-7.

[93] *Id.* at 51:8-9.

[94] *Id.* at 51:9-17.

got after trading this myself for four or five months [in 2012], this is the most significant thing that I recall from that meeting."[95] This table, reproduced below, shows how the West Desk's scheme worked:

FP = Nymex + Basis + Index + ~~GDA~~

| | Day | FP | Nymex | Basis | Index |
|---|---|---|---|---|---|
| | 0 | | | +5 | −20 |
| 40% | 1 | +8 | −8 | +13 | −12 |
| 30% | 2 | +14 | −14 | +19 | −6 |
| 20% | 3 | +18 | −18 | +23 | −2 |
| 10% | 4 | +20 | −20 | +25 | ~~0~~ |
| | 5 | | | | |

Wilson explained that while the numbers used in this table are not exactly the same as the numbers used by Hall in their meeting, "the concept is the same."[96] And, although Wilson did not understand the concept at the time of the 2009 meeting, the concept matches the scheme Wilson participated in under Tran's direction in 2012 as well as the scheme Enforcement found, based on trade data, TGPNA to have engaged in between 2009 and 2012. In a nutshell, Wilson explained how Hall's table illustrates the mechanics of the West Desk's scheme to trade fixed price natural gas during bidweek as a way to benefit its related positions.

Wilson walked through these mechanics, starting with the premise, reflected at the top of the table, that "fixed price by location is a combination of the NYMEX, the basis at that location, the index at that location, and the Gas Daily Index."[97] From there, Wilson described the initial position leading into bidweek, reflected in the first row (day 0) of the table—"long 5 a day of basis at any given location, and . . . short 20 a day of index."[98] Wilson then walked through each bidweek day, explaining how TGPNA flattened the index position by trading fixed price natural gas in an amount determined by a percentage of its initial index position, and the impact of such fixed price trades. For example, referring to the second row, Wilson explained that if he were to trade "out of 40 percent of [his] index position using fixed price on day 1 . . . [he would] be long 8 a day fixed price at that location."[99] He would then sell 8 a day of NYMEX to neutralize the

[95] *Id.* at 167:19-168:1, Ex. 5.

[96] *Id.* at 170:5-9.

[97] *Id.* at 168:2-4. Wilson crossed out the Gas Daily Index piece because it was not relevant to the bidweek strategy Hall described. *Id*. at 168:5-7.

[98] *Id.* at 168:17-18.

[99] *Id.* at 168:20-22.

risk from this fixed price purchase.[100] With the fixed price purchase, he would "have begun to exit [his short] index position," and grow his long basis position.[101] Meanwhile, because of the NYMEX sale in the opposite direction of the fixed price purchase, he noted that he would be "taking no fixed price risk at all."[102]

Similarly, on day 2, reflected in the third row of the table, assuming he traded an additional 30 percent of his initial index position (6), he would continue to flatten his index position and lengthen his basis position. And he would make a NYMEX sale to offset the fixed price purchase, thereby, neutralizing any fixed price risk.[103] Wilson gave similar explanations for days 3 and 4 of bidweek, ultimately showing how, by the end of day 4, he would be able to use fixed price purchases to completely exit his index position while adding substantial length to his large basis position. Meanwhile, the fixed price trades contributed to the published index price and thereby affected the long basis position, which is pegged to the index.

The table highlights two critical components of the scheme that Wilson came to understand after he started trading bidweek during 2012. First, the table illustrates the purpose for the initial positions: as Wilson explained, "the whole reason you've established a large short index position is so that you can trade a bunch of fixed price and have an impact on the index."[104] Second, it illustrates the impact and overall purpose of the fixed price trades: As Wilson emphasized, by the end of day 4, "I have traded a ton of fixed price to support my financial position."[105]

#### b. Phase 2 of Wilson's Tenure at TGPNA: Wilson Learned, Observed, and Participated in the Bidweek Scheme Under Tran's Supervision and Tutelage

In the two-and-a-half years after his first, brief encounter with the West Desk's bidweek scheme in 2009, Wilson had an active practice trading other types of products for TGPNA. During this time, Wilson continued to try to build his own business, "keeping on top of the fundamentals in the west markets."[106] Eventually, Wilson started to make progress and gained a deeper understanding of natural gas trading at TGPNA. As Hall testified, at the time Hall left TGPNA for TGPL in September 2011, Wilson had been "getting into a better understanding of how things were affecting each other in the

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[100] *Id.* at 168:23-24.

[101] *Id.* at 169:4-11.

[102] *Id.* at 169:11.

[103] *Id.* at 169:12-15.

[104] *Id.* at 171:8-11.

[105] *Id.* at 169:22-23.

[106] *Id.* at 51:22-24.

marketplace, and I thought he was making good progress."[107]

In January 2012—shortly after Hall left for London—Tran asked Wilson to assist her with the West Desk's bidweek trading. Because Wilson had had little experience with bidweek, Tran first provided some training, including how to use the complex and detailed bidweek spreadsheets that she and Hall had developed. At first, Wilson expected that any bidweek trading strategy would be based on fundamentals—which is how he learned to trade. What he actually learned over the course of the next few months under Tran's direction and supervision was that the West Desk made money using the same strategy that Hall depicted in the table on the white board during the 2009 meeting—by trading fixed price gas during bidweek to affect index prices and benefit its related positions.[108]

#### i. Overview of Wilson's Account of West Desk's Bidweek Scheme

Wilson traded bidweek under Tran's direction from the end of January 2012 (for the February bidweek) through the end of May 2012 (for the June bidweek).[109] Based on his experience during these five bidweek periods, Wilson identified in his subsequent testimony two principal factors that led him to realize that the West Desk was designing its trades to influence index prices. First, Wilson noticed during these bidweek periods that the West Desk consistently established an initial position leading up to bidweek or in bidweek that included a large financial position and a physical index position that pointed in opposite directions.[110] For example, Wilson noted that heading into the April 2012 bidweek period at San Juan, the West Desk had a short basis position of approximately 128,000 MMBtu/day and a long index position of approximately 140,000 MMBtu/day.[111] Wilson then described the significance of these initial positions, explaining that TGPNA would trade fixed price gas during bidweek for the dual purpose of flattening the index position and supporting the basis position.[112] The large index position, which included

[107] Hall Test. Vol. I at 82:7-12.

[108] Wilson Test. Vol. II at 218:18-219:5.

[109] *Id.* at 222:22-223:5.

[110] *Id.* at 219:12-18, 252:4-13, 305:23-307:11; Wilson Test. Vol. I at 135:23-137:17.

[111] Wilson Test. Vol. II at 250:23-254:16, Ex. 2-1 (TGPNA F 02150811, West Desk Position Report for March 23, 2012).

[112] *Id.* at 252:22-253:10. In fact, the trade data reveals that this is precisely what Wilson did during the April 2012 bidweek period at San Juan. He used his long index position to sell as fixed price gas during four bidweek days. Specifically, he made 26 sales of monthly physical fixed price gas across 4 bidweek days. *Id.* Ex. 2-3 (TGPNA

large volumes of physical index gas, especially stood out to Wilson. He explained that it did not make sense for a trading operation like TGPNA, solely interested in speculation, to stockpile such a large physical index position:

> [Its] a messy strategy if what you're doing is you're speculating on price. If you're speculating on price, you have no need to involve physical gas, because you can put that trade on financially, and let it settle out financially, and you never have to touch a molecule of gas. It's cheaper. It's easier. It's more liquid. It just makes a lot more sense.[113]

Second, as he started making bidweek trades and maintaining the bidweek spreadsheets for Tran, Wilson witnessed "trading activity that benefits [the] financial position."[114] Specifically, Wilson testified that "over four or five bidweeks, I think we were batting a thousand on . . . financial positions being supported by fixed price trading. So that really bothered me, that the company had a financial position on and was trading fixed price around it."[115] As an example, Wilson described a situation where the desk had a long financial position and short physical index position going into bidweek and then bought "back fixed price during bid week, flattening out your physical position, and doing so in a way to benefit your financial position."[116]

In terms of the ways in which the West Desk traded fixed price gas to benefit its financial positions, Wilson learned that a lot of that trading "has to do with the timing of those trades around NYMEX moves."[117] This was because "in general, all gas prices will be rising if the NYMEX is rising. So, those trades at the higher price point would then affect where the index would come out."[118] For example, Wilson described how if TGPNA was long basis going into bidweek:

> if you had a run-up in the NYMEX of, say, 10 cents, it would be to your advantage to trade more fixed price at a location to set a higher index and to influence your basis position. If the NYMEX then dropped 20 cents, you would simply stop

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Trade Data Extracted From TGPNA 000168145). These sales served to flatten his index position while benefiting his short basis position.

[113] *Id.* at 362:16-23.

[114] *Id.* at 219:19-20.

[115] Wilson Test. Vol. I at 58:17-22.

[116] *Id.* at 64:2-6.

[117] Wilson Test. Vol. II at 219:19-22.

[118] *Id.* at 219:23-220:13.

trading the fixed price.[119]

In addition to trading around NYMEX movements, Wilson discovered that TGPNA traded fixed price gas in the same direction as the basis position (e.g., "if I'm long basis, it would benefit me to be buying fixed price").[120] Also, Wilson noticed that there were some locational indexes that included multiple trading locations, and that "it's well known to the trading community that some of those locations trade at a discount and some of those locations trade at a premium" to the overall average.[121] In such cases, "[i]f I just focused my fixed price trading on the premium market at SoCal, I could have an effect on the index."[122]

#### ii. Wilson's Specific Involvement in West Desk's Bidweek Scheme

In his testimony, Wilson detailed his involvement trading bidweek during the five-month period in 2012 and how he came to understand the nature of the West Desk's scheme. He started trading at the end of January 2012 (for the February 2012 bidweek period).[123] When Tran asked him to trade during this bidweek, it felt "last-minute [and] disorganized" to Wilson,[124] and he "had no real knowledge of [the West Desk's] initial position" or "of any strategy."[125] Because he did not initially understand the desk's strategy, Wilson said that his bidweek trading initially consisted of "simply seeing an index position that we had and trading fixed price to flatten out our index position, so trying to get our physical position flat."[126] Wilson did not "learn much at all" during this February 2012 bidweek period; he simply saw "an inherent index position, and . . . just simply traded some fixed price to try to get that position flat."[127]

After the February 2012 bidweek period ended, Tran asked Wilson if he wanted to continue trading during bidweek, and he agreed.[128] During the month of February heading into the March 2012 bidweek, Wilson familiarized himself with the West Desk's bidweek spreadsheet:

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[119] Wilson Test. Vol. I at 59:1-14.

[120] Wilson Test. Vol. II at 220:20-221:1.

[121] *Id.* at 221:7-12.

[122] *Id.* at 221:13-16.

[123] *Id.* at 224:17-20.

[124] *Id.* at 226:113.

[125] *Id.* at 225:5-7.

[126] *Id.* at 225:8-10.

[127] *Id.* at 226:7-14.

[128] *Id.* at 226:15-17.

> [it] would allow me to track all of the basis risk, the index risk, the NYMEX risk. It would all be loaded into the sheet on the last day of the month prior to the start of bid week so I could see what the initial front month position was.[129]

Wilson spent the month "learning my way around that spreadsheet and understanding how to input the initial positions and how to tie out with the mid-office at the end of the day on all the trading activity that was done, you know, you start learning a little bit more about the whole bid week process."[130] Wilson recalls that, during the March 2012 bidweek (i.e., the last five business days of February 2012):

> [t]here may have been something towards the end of bid week or something, some initial alarms going off in March that maybe some things were happening that I didn't really expect. I think probably I was thinking I was going to go in and flatten a position again, and we ended up doing a little bit more trading than that.[131]

Continuing to study the spreadsheets during subsequent bidweeks, Wilson developed an understanding of the West Desk's bidweek trading strategy.[132] He testified that by studying the bidweek spreadsheets and seeing how they worked during bidweek, "I was seeing how various fixed price trades were aligned with financial positions and how those fixed price trades would change certain values that we were keeping track of."[133]

While he was learning about and trading bidweek, Wilson received supervision and critical tutelage from Tran.[134] Her careful instruction caused him to execute the West Desk's scheme, at first unwittingly:

> There were times during bid week when I would be encouraged to trade a little bit more fixed price here. Looking back, it's because the NYMEX had put the fixed

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[129] *Id.* at 226:17-23.

[130] *Id.* at 226:24-227:6.

[131] *Id.* at 227:14-19.

[132] *Id.* at 227:20-228:1, 230:22-231:12.

[133] *Id.* at 231:5-10.

[134] *Id.* at 232:20-21 ("She knew about my trading during every bid week that I was involved in, and she closely monitored that."). This testimony is consistent with that of Tran, who testified that "during the 2011-12 timeframe when I was managing the West, I did try to explain to him how we make money and trade bidweek." Nguyen Test. Vol. II at 161:13-15.

> price at that location into a favorable position to encourage us to trade more if we wanted to have an impact on the index. So there were times when—even if I didn't know it at the time when she was telling me, there were times when she was encouraging me to trade more fixed price or tighten up my two-ways, put a bid and an offer out there.[135]

There were also times when Tran told him not to engage in otherwise economic physical trades because prices were not in their favor:

> I mean, if we had an index exposure in the book with the intent to trade fixed price, if the NYMEX went in a direction that was opposite of what would be optimal for what the desk was trying to accomplish, you would not want to trade any fixed price, because if you did that would negatively impact the index as far as your financial position was concerned.[136]

In addition, Tran taught Wilson how to use the bidweek spreadsheets to measure the impact of his fixed price trading on index prices:

> [S]he kind of coached me on, was hey, do some back calculations in the sheet and see how much more volume we need to trade at this price to lower the index or raise the index by a penny. It's very easy to do that when you have this sheet built. . . . [T]here was some kind of communication as to that effect, you know, Matt, if you can get another 50,000 to trade we're going to affect the index here by a penny because NYMEX has dropped so much. [137]

As Wilson recalls, the "watershed" moment occurred at the end of March 2012 (during the April 2012 bidweek period) when he realized that he was being directed to trade a lot of fixed price gas at San Juan after the NYMEX dropped, with the specific intent to lower the index price at San Juan.[138] As Wilson explained:

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[135] Wilson Test. Vol. II at 232:22-233:6. A "two-way" involves submitting simultaneous bids and offers to encourage trading within a particular price range.

[136] *Id.* at 234:3-9.

[137] *Id.* at 274:9-18.

[138] *Id.* at 276:6-10, 283:13-18. This motive to lower the San Juan index price is consistent with the trade data. Leading into the April 2012 bidweek period at San Juan, TGPNA's position reports indicate that the West Desk had a large short Print Risk position of approximately 268,000 MMBtu/day, or more than 8,000,000 MMBtu (8 Bcf) for the month of April and, thus, lowering the published index price would benefit this

> just knowing the conversations that I had with Theresa and the encouragement to trade certain things at certain times and, you know, this is going to benefit us if we can see how this affects the index and what's the number, is it 50,000, can we trade a little bit more to move this a penny, those were the kinds of conversations that were going on at this time, and that was the kind of encouragement that was going on at this time.[139]

Until that last day of the April 2012 bidweek period, Wilson did not fully understand why there was so little open discussion about bidweek strategy at the office. He generally recalled conversations that "your IMs are recorded, you know, they wanted to let us know that the IMs were recorded . . . . If you have anything questionable, don't put anything questionable in IMs, don't put anything questionable in e-mails." [140] Before he started helping with bidweek, Wilson had perceived that bidweek strategy was "a very sensitive subject."[141] As he completed the April 2012 bidweek, he came to a realization: "I didn't know why people hadn't talked about it before until you get to a place like April and then you start seeing what's going on and you realize why people are probably not wanting to talk about this."[142]

After the April 2012 bidweek period, Wilson traded two more bidweeks—May and June 2012. In each of those, he was fully aware of the scheme and, in fact, he intentionally traded fixed price gas to affect the index price in an effort to benefit the desk's related positions. During these bidweeks, Wilson admitted that he knew at that time that he was "having an impact on the index" and that he was "knowingly trading to try to affect the index price."[143] For the May 2012 bidweek, as an example, Wilson made fixed price trades at Permian in order to strengthen the index because the desk had a long Print Risk position.[144] As he described it, "I wasn't concerned whether I made or lost

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short position. *Id.* Ex. 2-1 (TGPNA F 02150811, West Desk Position Report for March 23, 2012). Enforcement calculated this monthly Print Risk position by subtracting the West Desk's index position (139,956 MMBtu/day) from its basis position (-128,638 MMBtu/day) and multiplying the result by the number of days in April. *Id.*

[139] *Id.* at 283:19-284:2.

[140] *Id.* at 288:15-20.

[141] *Id.* at 298:14-16.

[142] *Id.* at 298:16-19.

[143] *Id.* at 230:22- 231:16.

[144] *Id.* at 309: 8-17. On April 23, 2012, the day before the May 2012 bidweek period, TGPNA's position report indicates that the West Desk had a long Print Risk position of approximately 4,000,000 MMBtu (4 Bcf) for the month of May at Permian.

money on the fixed price trades. I was concerned with having an impact on the first-of-the-month index."[145] He recalled, the NYMEX price started to rise dramatically, and Tran thought this was an opportunity to manipulate the index price and asked Wilson about their trading volumes: "I think she was excited, and she was interested in what kind of impact we might be able to have on the index at Permian and at Keystone with that kind of a move, and that's why she was asking me about volumes."[146] Wilson recalled further that Tran "realized kind of mid-conversation that we don't need to be talking about volumes here, this is a 12-cent move in NYMEX, just start trading it, and let's not worry about the volume."[147] As Wilson recalled, others on the trade floor also knew that this was an opportunity to manipulate the index: "William Meyers overheard that conversation and offered to help as well."[148] At that time, Meyers served as the head of TGPNA's Texas Desk.[149]

For the June 2012 bidweek, Wilson traded fixed price at Waha only on the first day of bidweek "because the NYMEX dropped"[150] after the first day, and the West Desk needed prices to rise to support its long Print Risk position there.[151] As he recalled, there was "[n]o need to trade any more fixed price because all you're going to do at that point

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*Id.* Ex. 2-5 (TGPNA F 02150795, West Desk Position Report for April 23, 2012). Enforcement calculated this monthly Print Risk position by subtracting the West Desk's index position (-64,992 MMBtu/day) from its basis position (67,498 MMBtu/day) and multiplying the result by the number of days in May. *Id.*

**145** *Id.* at 318:20-23.

**146** *Id.* at 320:3-6.

**147** *Id.* at 320:6-10. Wilson's testimony is corroborated by the trade data, which shows a large increase of approximately 10-12 cents in the NYMEX price on April 26, 2012, the third day of the May 2012 bidweek period. *See id.* Ex. 2-7 (graph created based on ICE Data, TGPNA Trade Data (TGPNA 000168145), and NYMEX price data for the May 2012 bidweek at Permian).

**148** *Id.* at 320:10-11.

**149** Wilson's testimony is consistent with the trade data, which shows that Meyers made two off-ICE fixed price transactions during the time of the NYMEX swing. *See* TGPNA 000168145 (TGPNA Trade Data).

**150** Wilson Test. Vol. II at 339:6-14, 340:13-15.

**151** Heading into the June 2012 bidweek period, TGPNA had a long Print Risk position of 219,168 MMBtu/day, or more than 6,000,000 MMBtu (6 Bcf) for the month of June at Waha. *See* TGPNA F 02150813 (West Desk Position Report for May 23, 2012). Enforcement calculated this monthly Print Risk position by subtracting the West Desk's index position (-86,594 MMBtu/day) from its basis position (132,574 MMBtu/day) and multiplying the result by the number of days in June. *Id.*

is hurt your financial trade."[152] By staying out of the market when prices dropped, Wilson ensured that the index printed at a price above where it would have been had TGPNA traded more volumes at lower prices. As a result, basis at that point ended up being more favorable to the West Desk's long Print Risk position than it would have been otherwise.[153]

In short, Wilson learned about TGPNA's scheme while he was trading fixed price during bidweek between January and May 2012. He discovered that the scheme involved establishing related positions that would benefit from a strengthening or weakening index, and then by executing fixed price trades with the purpose and design to move the index in that favorable direction.

As Wilson became more accomplished at executing the bidweek scheme, he began to receive accolades from his peers and supervisors. He testified that it "probably felt good trading it, and feeling like you're getting some encouragement, some attaboys, and feeling like you're more connected to what's going on and more connected to the culture."[154] For the first time, he testified, Tran took him out for drinks. "[I]t was the first time I can remember in my career at Total that Therese and I said hey, let's go get a drink after work."[155] Also, Wilson testified that after or during the May 2012 bidweek period he recalled that Hall made a return visit to the Houston office from London, and when he saw Wilson "he kind of looked at me with a smile on his face," and he said "so you kind of understand what we're doing now with bid week."[156]

Despite the kudos he received after learning how to trade the West Desk's bidweek scheme, Wilson knew that the scheme was wrongful. Starting with the April 2012 bidweek, the positive reaction "kind of sounded the main alarm for me. I know I went home after this bid week and . . . I developed a real conscience about bid week after what happened on this day."[157] This caused a "period of internal conflict" for Wilson,

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[152] Wilson Test. Vol. II at 354:25-355:7.

[153] *Id.* at 354:21-355:7.

[154] *Id.* at 284:9-14.

[155] *Id.* at 291:10-22. *See also* TGPNA F 02253095 (May 22, 2012, Instant Message conversation between Tran and Hall in which Tran notes that she gives Wilson trade ideas and that she and Wilson were getting along well together).

[156] Wilson Test. Vol. II at 334:4-8, 16-23. Contemporaneous documents confirm that Hall visited TGPNA at the end of April 2012. *See* TGPNA F 01642519 (April 20, 2012, email between Hall and Earl discussing Hall's upcoming visit); TGPNA F 02253091 (April 23, 2012, Instant Message between Hall and Tran discussing dinner plans in Houston).

[157] Wilson Test. Vol. II at 285:1-8.

and so he decided to find a way to stop trading bidweek.[158] Wilson tried to achieve this goal by taking over the recently vacated Mid-Continent Desk. He saw the move to the Mid-Continent Desk as a way of gaining some autonomy and separation from the West Desk.[159] At the end of May 2012, Wilson convinced TGPNA management to allow him to start placing trades on the Mid-Continent Desk. This did not work out as planned for Wilson. When he tried to test his new authority by placing a trade in the Mid-Continent book, Tran objected and overruled him. This led to a verbal altercation on the trading floor, and Wilson was seen as acting insubordinately to his supervisor.[160] But Wilson also thought that Tran had sensed his uneasiness with the West Desk's bidweek trading, and he suspected that her sense about this may have contributed to the altercation.[161]

When Wilson's efforts to remove himself from the West Desk failed, he felt he had no other choice but to alert the government and TGPNA management about the West Desk's bidweek trading scheme.[162] On June 3, 2012, just a few days after his confrontation with Tran doomed his efforts to separate himself from the West Desk, Wilson reported his allegations in an email to the Commission's Enforcement Hotline and, one week later, filed a formal whistleblower complaint with the CFTC. On June 10, 2012 (the same day as his whistleblower complaint to CFTC), Wilson sent an email to TGPNA's president, Bruce Henderson, copying Tom Earl, reporting concerns with the West Desk's trading activities.[163] Shortly afterwards, Wilson took medical leave for a few weeks, and then TGPNA's management terminated him.[164]

#### 2. Callender's Account of TGPNA's Bidweek Trading Scheme

Like Wilson, Callender credibly explained the West Desk's bidweek trading scheme in detail. Though Callender did not conduct trades on the West Desk, his description of the bidweek activity is particularly credible, given that his independent

[158] *Id.* 341:10-21.

[159] Wilson Test. Vol. I at 146:15-147:4, 158:7-23; Wilson Test. Vol. II at 326:15-24, 343:6-344:15.

[160] Wilson Test. Vol. I at 158:24-160:19; Wilson Test. Vol. II at 344:9-347:7.

[161] Wilson Test. Vol. II at 347:22-348:1; 348:19-22.

[162] Wilson Test. Vol. I at 145:9-146:14.

[163] TGPNA F 01012412 (June 10, 2012, email from Matt Wilson to Bruce Henderson). Less than three hours after receiving Wilson's email—without conducting any meaningful review of Wilson's claims—Earl was already dismissive of the allegations, telling Henderson that "Therese has this afternoon confirmed that Matt's accusation is entirely without merit." *Id.* In this communication to Henderson, Earl also noted that Wilson's allegations implicated Wilson's own trading activity and speculated that Wilson was relying on "'whistleblower immunity.'" *Id.*

[164] Wilson Test. Vol. I at 156:1-157:9.

account is nearly identical to Wilson's in terms of how the scheme operated. In addition, Callender's October 2011 CFTC whistleblower complaint pre-dates Wilson's bidweek trading by several months and, therefore, derives from an independent source of information.

Callender testified that he believed Hall and Tran engaged in a scheme to trade physical products during bidweek to try to influence index prices.[165] He believed this strategy "was employed continually month after month after month," and that it occurred at SoCal and Waha.[166] There were two principal bases for Callender's allegation: his review of TGPNA position reports and discussions with other traders at the company. Callender testified that he frequently looked at TGPNA's position reports and, like Wilson, he noticed that the West Desk had sizeable financial and physical index positions leading up to bidweek.[167] For example, referring to a position report TGPNA created just prior to the February 2010 bidweek, Callender testified that TGPNA had a short basis position of approximately 142,000 MMBtu/day and a long index position of approximately 247,000 MMBtu/day at Permian.[168] Callender then explained how these positions created a prime posture for the West Desk traders to influence the published monthly index price. Specifically, Callender testified that he believed, "[b]ased on history, what normally went on," the traders would take advantage of their large long physical index position to "be a big seller of physical gas throughout bid week."[169] He believed the traders did this "to influence the paper."[170]

This testimony about TGPNA selling large volumes of fixed price gas at Permian during this February 2010 bidweek period to influence its short basis position is consistent with the trade data. Tran made a total of 74 fixed price trades at Permian during four bidweek days.[171] Of the 74 trades, she executed 56 sales—consistent with a motive to drive down prices—which made up more than 59 percent of the sale volume on ICE during the bidweek period.[172] Moreover, the volume weighted average price of her fixed price transactions was more than 5 cents less than non-TGPNA transactions.[173]

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[165] Callender Test. at 105:21-106:24.

[166] *Id.* at 106:5-17.

[167] *Id.* at 110:3-111:8.

[168] *Id.* at 118:18-120:13, 129:9-16, Ex. 1 (TGPNA F 02148073, TGPNA Position Report for Jan. 22, 2010).

[169] *Id.* at 132:16-17.

[170] *Id.* at 132:21-22.

[171] *See* TGPNA 000168145 (TGPNA Trade Data).

[172] Enforcement calculated TGPNA's percentage of ICE trade volume based on data from ICE. Specifically, during the course of Enforcement's investigation, ICE produced bid, offer, and transaction data at multiple locations, including the Relevant

Moreover, Callender testified that there is no reasonable explanation for TGPNA carrying such a large physical index position going into the February 2010 bidweek: "there would be no reasoning for Total to go into a month 247,000 dekatherms physically long" especially given that TGPNA "had no storage positions, no transport positions and no production."[174] Callender explained further, "[t]here's really no reason you have an index position that big. Index is the least volatile of all markets, so you really couldn't be expecting to make any money off of buying index."[175]

In addition to his review of position reports showing a consistent pattern of initial positions, Callender also believed the West Desk engaged in its bidweek trading scheme based on discussions he had with other traders at TGPNA. For example, one of Callender's friends at TGPNA explained to him how TGPNA made a lot of money during bidweek by trading physical gas as a way of influencing related financial basis swap positions.[176]

### B. Trade Data Corroborates Wilson's and Callender's Testimony

Wilson's and Callender's accounts of the West Desk's bidweek trading scheme are corroborated by the relevant trade data, which shows that the desk's traders frequently used their monthly physical fixed price bidweek trades to influence published monthly index prices for the purpose of benefiting their related positions. The data confirm that this conduct occurred between June 2009 and June 2012 at SoCal, Waha, Permian, and San Juan. Moreover, the data verify that the scheme operated under the same two phases described by Wilson and Callender.

First, going into each bidweek period, the West Desk regularly established large physical and financial positions exposed to published index prices (i.e., a large Print Risk position), which included basis and index positions in opposite directions and a large physical index position. To obtain these large Print Risk positions, the traders actively traded before (and sometimes during) bidweek, and they frequently discussed and coordinated these positions.[177] As an example, on August 24, 2009, the day before the September 2009 bidweek period, Hall directed Tran to buy "all the [SoCal] index you

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Locations, for the Relevant Period. Hereafter, this data will be referred and cited to as ICE Data.

[173] *See* ICE Data.

[174] Callender Test. at 132:23-133:5.

[175] *Id.* at 133:19-23.

[176] *Id.* at 107:4-108:19.

[177] Hall Test. Vol. II at 168:17-169:13 (describing coordination with Tran and explaining that "[g]oing into bid week, we would be discussing what our total positions were . . . .").

can."[178]

PRODBEG = TGPNA 00515675
DATE = 08/24/2009
TIME = 4:25:38 PM
FROM : theresen01
TO : tfeaaron
TEXT1 : 4:25:38 PM theresen01 tfeaaron yo
4:26:18 PM theresen01 tfeaaron you okay with me taking my brother to lunch then to airport.. take of half day?
4:26:35 PM tfeaaron theresen01 "y, as long as you have bidweek stuff ready"
4:26:49 PM tfeaaron theresen01 i.e. you've bought all the scoal index you can :)
4:26:56 PM theresen01 tfeaaron i bot all the perm
4:27:04 PM theresen01 tfeaaron and long total 30/d
4:27:07 PM tfeaaron theresen01 k
4:27:10 PM theresen01 tfeaaron everything all set
4:27:15 PM tfeaaron theresen01 i saw your position friday
4:27:17 PM theresen01 tfeaaron will play by ear on fri and might go bid for more
TEXT2 :
TEXT3 :
CONV_INDEX = 0

Tran responded, "everything all set,"[179] and, indeed, the West Desk had a long index position of more than 178,000 MMBtu/day on August 24, 2009.[180] Combined with the desk's basis position, this index position created a short monthly Print Risk position of close to 12,000,000 MMBtu (12 Bcf) heading into the September 2009 bidweek period at SoCal.[181]

Second, armed with a set of initial positions giving them the ability and motive to manipulate index prices, the West Desk traders employed a variety of trading strategies, designed to move the index price in a direction that benefited their related Print Risk positions.[182] These strategies included: (1) establishing a sufficiently large market share

[178] *Id.* Ex. 2-13 (TGPNA 00515675, August 24, 2009, Instant Message between Hall and Tran) (highlighting added).

[179] *Id.*

[180] *See* TGPNA 000168466 (TGPNA Position Report for Aug. 24, 2009, Tab Titled, "BI WUS By Region").

[181] *See id.* According to TGPNA's position report, on August 24, 2009, the day before bidweek, the West Desk had a short basis position of 220,578 MMBtu/day and a long index position of 178,989 MMBtu/day for the month of September at SoCal. Subtracting the index position from the basis position created a short monthly Print Risk position of 11,987,010 MMBtu, or 11.9 Bcf.

[182] The CFTC similarly found that TGPNA's scheme operated under these two phases, explaining that "the West Desk acquired large print risk exposure prior to the start of bid-week. Depending on the direction of their print risk exposure (*i.e.*, long or short), Respondents executed enough fixed-price trades during bid-week with the intent to favorably affect monthly index settlement prices at the relevant hubs." CFTC Settlement at 4.

of monthly physical fixed price trades during bidweek—the West Desk was routinely more than half of the trades by volume on the index—in order to steer the market in their preferred direction; (2) substantially deviating from prices transacted by other market participants; (3) timing trades to follow sharp and favorable trends in NYMEX prices; (4) submitting aggressive prices to ensure their bids were hit and offers lifted at preferred price levels; (5) aggressively hitting bids and lifting offers with an indifference to price; (6) "churning" large volumes of fixed price gas to affect the price with a large gross volume, but with little net physical obligation; (7) creating so-called "two-ways" (simultaneous bids and offers) at select times to encourage trading at preferred price levels;[183] and (8) trading large volumes on day 4 of bidweek when the market is typically much thinner after the NYMEX has settled.[184] In addition, the West Desk traders were not motivated to receive the highest price or pay the lowest price for their gas during the Relevant Period and, in fact, their trades across the 38 point-months identified in this Report were generally uneconomic.[185]

The September 2009 bidweek period at SoCal, referenced above, provides a good example of the West Desk's aggressive bidweek trading tactics. Armed with a large stockpile of physical index gas and a short monthly Print Risk position of nearly 12 Bcf that created an incentive to weaken the published index price, Tran entered into 35 fixed price trades, including 22 sales, during 4 bidweek days.[186] These fixed price sales flattened the West Desk's long index position, while supporting the short Print Risk position. Tran's trades accounted for more than 80 percent of the fixed price trading volume, including more than 50 percent of the sale volume, on ICE at SoCal during this bidweek period.[187] Tran used this huge market share to drive down prices to support her

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[183] Submitting simultaneous bids and offers could constitute legitimate market-making activity if done consistently during the trading day. However, such conduct raises red flags when done selectively at times only when prevailing prices favor the trader's benefitting positions.

[184] Any one of the desk's trading strategies, in isolation, might not reveal its desire to manipulate prices, but the *collective* and *repeated* nature of strategies it used throughout the Relevant Period evidences its fraudulent intent.

[185] The West Desk lost money on its monthly physical fixed price bidweek trades in 28 of the 38 point-months and made a small profit in 10 of the point-months. Combining the desk's losses during the 28 point-months (approximately $2.87 million) with its profits during the other 10 periods (approximately $0.78 million), it lost approximately $2.09 million on its fixed price trades across the 38 point-months. Enforcement calculated these figures by cashing out the West Desk's fixed price trades during each of the 38 point-months against the relevant IFERC or NGI index.

[186] *See* TGPNA 000168145 (TGPNA Trade Data).

[187] *See* ICE Data.

short Print Risk position. Tran's fixed price trades were executed at a volume-weighted average price of $2.60—6 cents lower than the volume-weighted average price of non-TGPNA transactions. She was involved—either as a buyer or seller—in every monthly fixed price ICE trade at SoCal on the fourth day of bidweek.

The West Desk's conduct during this September 2009 bidweek period at SoCal is representative of its actions during the Relevant Period, including the 38 point-months identified in this Report that form the basis of Enforcement's penalty and disgorgement calculation. Four additional examples are discussed below, each illustrating the essential concepts described by Wilson and Callender—build-up of positions leading into bidweek and fixed price trading during bidweek to influence index prices to benefit those positions. In addition, each example shows the different trading tactics employed by the West Desk to try to move prices. The collective and repeated nature of these strategies during the Relevant Period demonstrates the West Desk's intent to move index prices to benefit its related Print Risk positions.

#### 1. August 2011 at SoCal

The West Desk entered into numerous financial and physical transactions at SoCal leading into and on the first day of bidweek—July 25, 2011—that created a long Print Risk position of nearly 14,000,000 MMBtu (14 Bcf) for the month of August.[188] This long Print Risk position would benefit from higher prices during bidweek (i.e., if the index settled higher), and would be hurt by falling prices (i.e., if the index settled lower). The long position created a strong financial motivation to drive up the SoCal index price by trading enough fixed price gas at high prices. To fulfill this motive, the West Desk also went into bidweek with a short index position of 139,952 MMBtu/d,[189] which included a large short physical index gas position meaning that it could buy fixed price gas during bidweek to flatten this position and benefit its long Print Risk position.

This is exactly what Tran did during bidweek. Trading during the first and second days of bidweek, Tran entered into 22 fixed price transactions at SoCal, trading more than 5 Bcf of gas (by gross volumes).[190] The following trading behaviors and patterns show Tran's intent to drive up prices at SoCal:[191]

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[188] *See* TGPNA F 02150849 (West Desk Position Report for July 25, 2011). Enforcement calculated this monthly Print Risk position by subtracting the West Desk's index position (-17,497 MMBtu/day) from its basis position (431,281 MMBtu/day) and multiplying the result by the number of days in August. *Id.*

[189] TGPNA F 02150781 (West Desk Position Report for July 22, 2011).

[190] *See* TGPNA 000168145 (TGPNA Trade Data).

[191] Enforcement's finding that these patterns show Tran's intent to affect prices is consistent with the findings of TGPNA's Vice President of Risk Control, Natalie Bondareva, who found the appearance of "suboptimal trading" during the August 2011

- **Market Share of Fixed Price Trades**: Tran established sufficient market share to move the index upward by dominating the market for fixed price trades at SoCal during bidweek. Twenty of Tran's 22 trades were purchases[192]—consistent with a desire to drive up prices—and her trades put her on one side of approximately 48 percent of the volumes transacted on ICE underlying the published index price at SoCal.[193]

- **High Transaction Prices Relative to Others**: Consistent with the intent to move the index upward, Tran transacted at fixed prices above the prices traded by other market participants. TGPNA's volume-weighted average price (on and off ICE) during bidweek ($4.53) was materially higher than the average price paid in all other ICE transactions at SoCal during this bidweek ($4.42).[194] Tran also had the highest priced fixed price trade at SoCal over the course of the entire bidweek period ($4.58), as determined by TGPNA's Middle Office.[195]

- **Timing Trades With Upward NYMEX Trends on Day 1**: As reflected in the chart below, Tran took advantage of the upward swing in NYMEX prices (green lines) in the morning of the first day of bidweek.[196] Observing rising NYMEX prices and knowing they would correspond to higher prices at SoCal, Tran capitalized on this trend by engaging in heavy trading early on the first day of bidweek (red and blue circles). In fact, as illustrated in the chart, her trades ran up prices quickly and dramatically by not only paralleling NYMEX prices, but, actually, exceeding the run-up in NYMEX prices. During this time, she entered into 13 transactions in less than an hour that totaled 100,000 MMBtu/day.[197]

- **Timing Trades With NYMEX Trends on Day 2**: Tran stopped trading at SoCal after the morning of day 2 when NYMEX prices began to fall. Tran stopped trading because the falling NYMEX price meant corresponding lower fixed price transactions

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bidweek period at SoCal. *See infra* Section III.C.3; Mateille Test. Ex. 9 (TGPNA F 01771676-77); Bondareva Test. Vol. II at 38:22-39:14, 63:1-9.

[192] *See* TGPNA 000168145 (TGPNA Trade Data).

[193] *See* ICE Data.

[194] *See* TGPNA 000168145 (TGPNA Trade Data) and ICE Data.

[195] TGPNA F 01933561-562 (August 3, 2011, email and Attachment from Middle Office showing data collected from Platts and NGI from the August 2011 bidweek period).

[196] Enforcement created this chart based on ICE Data, TGPNA Trade Data (TGPNA 000168145), and NYMEX price data from the August 2011 bidweek at SoCal. Similar charts for each of the 38 point-months are provided in Appendix B.

[197] *See* TGPNA 000168145 (TGPNA Trade Data).

at SoCal, which would no longer benefit TGPNA's long Print Risk position. With the falling prices, Tran stopped trading because TGPNA had already profited on its long position based on her day 1 trading.[198] Indeed, Tran's heavy day 1 trading created a large-volume "anchor" at favorable prices before prices began to fall with the NYMEX. In other words, Tran traded sufficient volumes on day 1 at favorable prices such that she was able to affect the overall volume-weighted average price before prices began to drop on day 2. And, because TGPNA typically constituted such a large proportion of the overall bidweek trading at that location, this meant that there was much less trading volume later in bidweek.[199]

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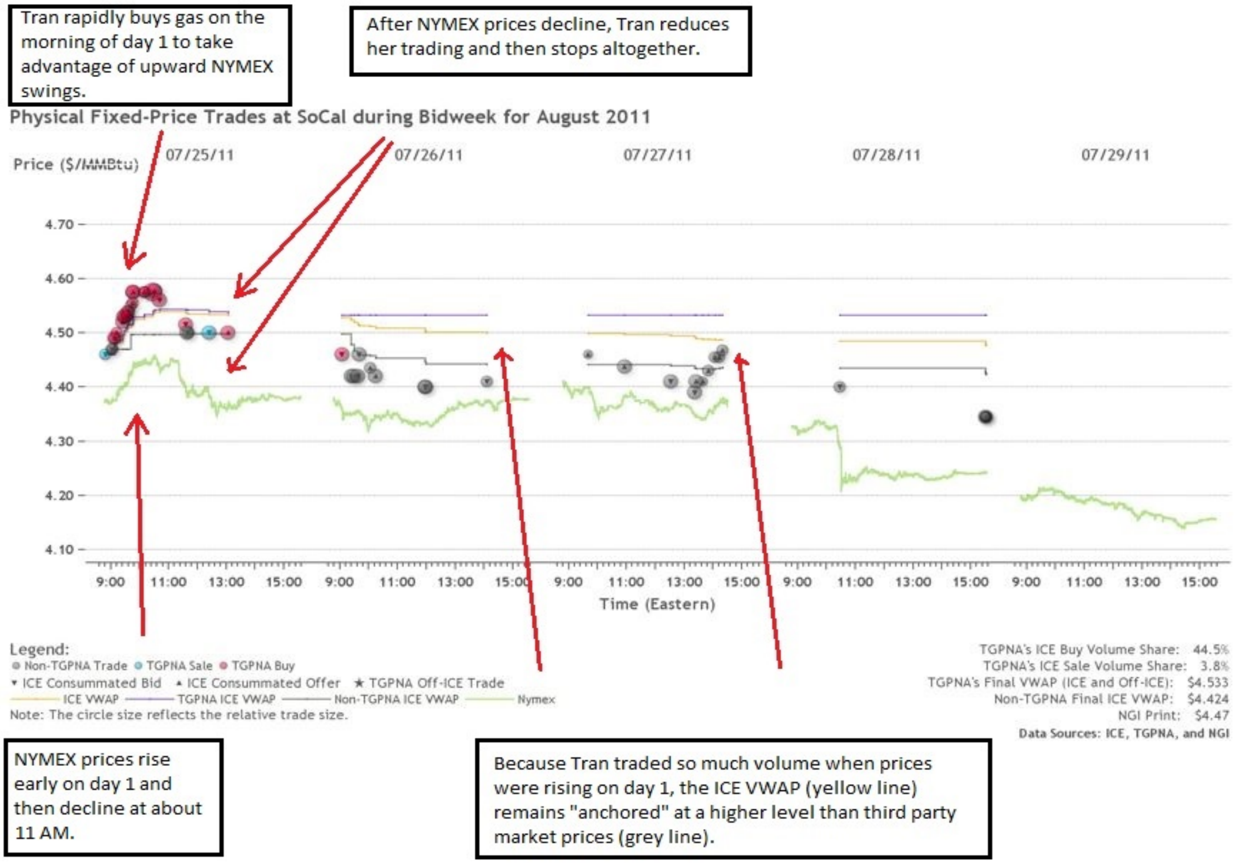
[198] In addition to stopping her trading on day 2 of bidweek when NYMEX prices started to drop, Tran also started cashing out of her basis swap position on day 2 after her day 1 trading helped drive up the price of basis swaps. For example, by the end of day 1, Tran had bought more than 12 Bcf of basis swaps at an average price of $0.089. Then on day 2, Tran started reaping the effects of her day 1 trading, selling nearly 6.3 Bcf of her basis swap position at an average price of $0.122. *See* TGPNA 000168145 (TGPNA Trade Data).

[199] Wilson testified that he traded in a similar fashion during the June 2012 bidweek at Waha (one of the months when Wilson admitted to knowingly engaging in the scheme). During this bidweek, in which TGPNA had a long Print Risk exposure, Wilson explained that he "traded more than [he] probably normally would on day 1, and . . . stopped trading after that because the NYMEX dropped." Wilson Test. Vol. II at 340:13-15.




### 2. January 2012 at Waha

The West Desk entered into numerous financial and physical transactions at Waha leading into and on the first two days of bidweek that created a short Print Risk position of more than 3,000,000 MMBtu (3 Bcf) for the month of January.[200] This short Print Risk position would benefit from lower prices during bidweek (i.e., if the index settled lower), and would be hurt by rising prices (i.e., if the index settled higher). The short position created a strong financial motivation to drive down the Waha index price by trading enough fixed price gas at low prices.

This is exactly what Tran did during bidweek. Trading during the first four days of bidweek, Tran entered into 17 fixed price transactions at Waha, grossing 122,500

[200] *See* TGPNA F 02150887 (West Desk Position Report for December 27, 2011). Enforcement calculated this monthly Print Risk position by subtracting the West Desk's index position (-12,410 MMBtu/day) from its basis position (-111,044 MMBtu/day) and multiplying the result by the number of days in January. *Id.*

MMBtu/day.[201] The following trading behaviors and patterns show Tran's intent to drive down prices at Waha:[202]

- **Market Share of Fixed Price Trades**: Tran established sufficient market share to move the index downward by dominating the market for fixed price trades at Waha during bidweek. Fourteen of Tran's 17 trades were sales[203]—consistent with a desire to drive down prices—and her trades accounted for 100 percent of the volumes and deals transacted on ICE underlying the published index price at Waha, meaning that the West Desk was involved in every single ICE bidweek trade at Waha that month.[204]

- **Timing Trades With Downward NYMEX Trends**: As reflected in the chart below, Tran took advantage of downward swings in NYMEX prices (green lines) throughout the bidweek period.[205] On the second and third days of bidweek, she generally stayed out of trading when NYMEX prices moved higher (morning of day 2 and afternoon of day 3) and traded during periods of downward swings in NYMEX prices (afternoon of day 2 and morning of day 3). Meanwhile, Tran traded throughout day 4, as NYMEX prices steadily declined.

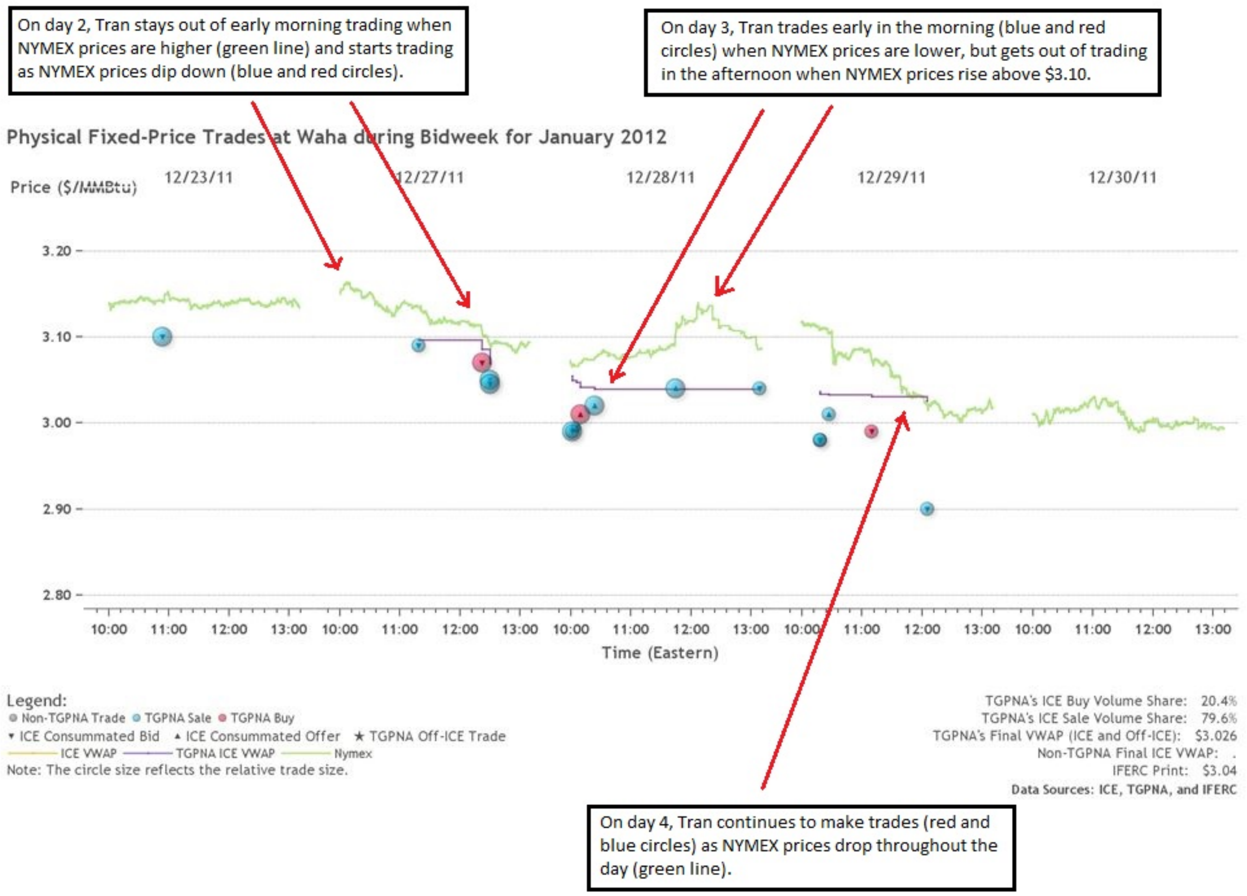
[201] *See* TGPNA 000168145 (TGPNA Trade Data).

[202] Bondareva also found the appearance of "suboptimal trading" during the January 2012 bidweek period at Waha. *See infra* Section III.C.3; Mateille Test. Ex. 9 (TGPNA F 01771676-77); Bondareva Test. Vol. II at 38:22-39:14, 63:1-9.

[203] *See* TGPNA 000168145 (TGPNA Trade Data).

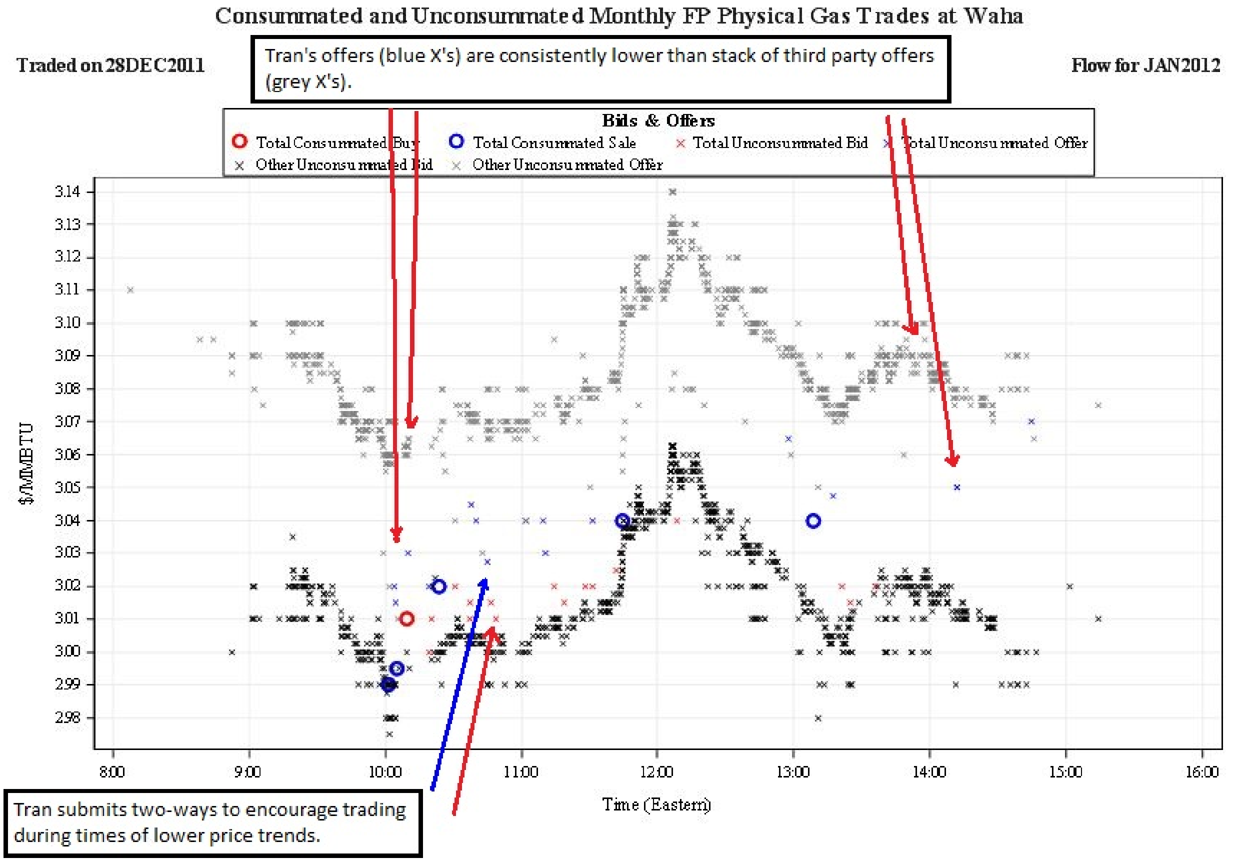
[204] *See* ICE Data.

[205] Enforcement created this chart based on ICE Data, TGPNA Trade Data (TGPNA 000168145), and NYMEX price data from the January 2012 bidweek at Waha.




- Aggressive Pricing to Ensure Offers Lifted at Low Prices: As reflected in the chart of day 3 unconsummated bids and offers below, Tran made very aggressive low offers relative to other parties' offers to try to ensure that she transacted at low prices. During the morning of day 3, for example, Tran's offers (blue Xs) were consistently lower than (and appear on the chart to be clearly set apart from) the stack of third party offers (grey Xs) above hers. Between approximately 10:00 AM and 11:30 AM, her offers range from approximately $3.01 to $3.04, while the stack of third party offers above these range from approximately $3.05 to $3.09.

- Offering "Two-Ways" to Encourage Trading at Preferred Price Levels: Instead of submitting two-ways consistently throughout the day, Tran offered two-ways only when she wanted to encourage trading at her preferred lower price levels. For example, as reflected in the chart of day 3 bids and offers, below, when prices were lower in the morning, Tran submitted a bid for $3.01 at approximately 10:20 AM (red X) and a simultaneous offer for $3.02 (blue X). She followed this bid and offer with a few more two-ways during the morning hours, as seen by the parallel blue and red Xs in the chart. However, starting in the late morning and into the noon hour, Tran stopped her two-ways as prices were on the upswing. Then, as prices came down in the afternoon, Tran submitted another two-way at approximately 1:20 PM, with a bid for $3.02 and an offer for approximately $3.05.




### 3. April 2012 at San Juan

On March 23, 2012—the day before bidweek—the West Desk had a short basis position at San Juan of 128,638 MMBtu/day and a long index position of 139,956 MMBtu/day.[206] The combination of these positions created an overall short index exposure position of approximately 8,000,000 MMBtu (8 Bcf) for the month of April 2012.[207] This short Print Risk position would make money from falling prices (i.e., if the published monthly index price at San Juan went lower), and would lose money from higher prices. This created a strong financial motivation to push down index prices at

[206] Wilson Test. Vol. II Ex. 2-1 (TGPNA F 02150811, West Desk Position Report for March 23, 2012).

[207] *Id.* Enforcement calculated this monthly Print Risk position by subtracting the West Desk's index position (139,956 MMBtu/day) from its basis position (-128,638 MMBtu/day) and multiplying the result by the number of days in April. *Id.*

San Juan.  Moreover, TGPNA had the physical ammunition to push down prices with its long index position of 139,956 MMBtu/day, which included a large position of physical index gas.

Wilson referred to this long index gas position as "bullets" allowing him to trade more fixed price gas during bidweek to facilitate the West Desk's manipulative strategy.[208] Trading on 4 of the 5 bidweek days, Wilson entered into 38 monthly fixed price transactions at San Juan, grossing approximately 8.9 Bcf and netting sales of 3.4 Bcf of next-month gas.[209] The following trading behaviors and patterns illustrate the West Desk's desire to drive down prices on behalf of TGPNA:[210]

- **Market Share of Fixed Price Trades**:  Wilson established sufficient market share to move the index downward by dominating the market for monthly fixed price sales at San Juan during bidweek.  Twenty-six of Wilson's 38 trades were sales[211]—consistent with a desire to push down prices—and his trades put him on one side of more than 50 percent of the volumes transacted on ICE underlying the published index price at San Juan.[212]

- **Low Transaction Prices Relative to Others**:  Consistent with the intent to move the index downward, Wilson transacted at fixed prices below the prices offered by other market participants.  Other market participants on ICE paid an average price of $1.92, which was nearly two-and-a-half cents higher than the average price of TGPNA's ICE and off-ICE transactions ($1.896).[213] The final Inside FERC index price published at $1.91.[214] Wilson also had the lowest priced fixed price trade at San Juan over the course of the entire bidweek period ($1.84), as determined by TGPNA's Middle Office.[215]

- **Day 4 Trading and Churning**:  Wilson continued to trade actively on the fourth day of bidweek (March 29, 2012), even though the market is typically much thinner after

[208] Wilson Test. Vol. II at 267:1-23.

[209] *Id.* Ex. 2-3 (Trade Data Extracted From TGPNA 000168145).

[210] Bondareva also found the appearance of "suboptimal trading" during the April 2012 bidweek period at San Juan.  *See infra* Section III.C.3; Mateille Test. Ex. 9 (TGPNA F 01771676-77); Bondareva Test. Vol. II at 38:22-39:14, 63:1-9.

[211] Wilson Test. Vol. II Ex. 2-3 (Trade Data Extracted From TGPNA 000168145).

[212] *See* ICE Data.

[213] *See id.*

[214] *See* TGPNA F 01012934-935 (April 3, 2012, email and Attachment from Middle Office showing data collected from Platts and NGI from the April 2012 bidweek period).

[215] *See id.*

the NYMEX settles. Wilson testified that such voluminous day 4 trading would be "unusual" as part of a legitimate risk-management strategy to flatten out a position.[216] During this day, Wilson engaged in "churning," executing 14 transactions that included seven sales and seven purchases. Although these 14 transactions grossed 120,000 MMBtu/day (all of which went into the volume-weighted index), they netted only 10,000 MMBtu/day, allowing Wilson to affect the price with a large gross volume, while carrying a very small net physical obligation.[217]

| A. Type of the instrument traded | B. Physical or Financial | E. & F. Execution date and time of the trade | F. Identity of the trader | G. Tenor | | H. Location | I. Purchase or Sale | J. Quantity | K. Volume unit | L. Fixed price or index price | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| fixed price | Physical | 03/29/2012 07:31:05 | Matthew Wilson | 4/1/2012 | 4/30/2012 | SJBLAN (San Juan Blanco Pool) | Sale | 10000 | MMBtu (Million Btu | 1.865 | $ (US Dollar) | MMBtu (Million Btu) |
| fixed price | Physical | 03/29/2012 07:43:29 | Matthew Wilson | 4/1/2012 | 4/30/2012 | SJBLAN (San Juan Blanco Pool) | Sale | 5000 | MMBtu (Million Btu | 1.87 | $ (US Dollar) | MMBtu (Million Btu) |
| fixed price | Physical | 03/29/2012 07:53:19 | Matthew Wilson | 4/1/2012 | 4/30/2012 | SJBLAN (San Juan Blanco Pool) | Sale | 5000 | MMBtu (Million Btu | 1.875 | $ (US Dollar) | MMBtu (Million Btu) |
| fixed price | Physical | 03/29/2012 07:59:07 | Matthew Wilson | 4/1/2012 | 4/30/2012 | SJBLAN (San Juan Blanco Pool) | Sale | 10000 | MMBtu (Million Btu | 1.8775 | $ (US Dollar) | MMBtu (Million Btu) |
| fixed price | Physical | 03/29/2012 08:20:45 | Matthew Wilson | 4/1/2012 | 4/30/2012 | SJBLAN (San Juan Blanco Pool) | Sale | 10000 | MMBtu (Million Btu | 1.87 | $ (US Dollar) | MMBtu (Million Btu) |
| fixed price | Physical | 03/29/2012 08:28:37 | Matthew Wilson | 4/1/2012 | 4/30/2012 | SJBLAN (San Juan Blanco Pool) | Sale | 10000 | MMBtu (Million Btu | 1.89 | $ (US Dollar) | MMBtu (Million Btu) |
| fixed price | Physical | 03/29/2012 08:46:35 | Matthew Wilson | 4/1/2012 | 4/30/2012 | SJBLAN (San Juan Blanco Pool) | Purchase | 10000 | MMBtu (Million Btu | 1.9 | $ (US Dollar) | MMBtu (Million Btu) |
| fixed price | Physical | 03/29/2012 10:44:09 | Matthew Wilson | 4/1/2012 | 4/30/2012 | SJBLAN (San Juan Blanco Pool) | Purchase | 10000 | MMBtu (Million Btu | 1.845 | $ (US Dollar) | MMBtu (Million Btu) |
| fixed price | Physical | 03/29/2012 10:46:44 | Matthew Wilson | 4/1/2012 | 4/30/2012 | SJBLAN (San Juan Blanco Pool) | Purchase | 10000 | MMBtu (Million Btu | 1.84 | $ (US Dollar) | MMBtu (Million Btu) |
| fixed price | Physical | 03/29/2012 10:56:34 | Matthew Wilson | 4/1/2012 | 4/30/2012 | SJBLAN (San Juan Blanco Pool) | Sale | 5000 | MMBtu (Million Btu | 1.855 | $ (US Dollar) | MMBtu (Million Btu) |
| fixed price | Physical | 03/29/2012 11:07:27 | Matthew Wilson | 4/1/2012 | 4/30/2012 | SJBLAN (San Juan Blanco Pool) | Purchase | 5000 | MMBtu (Million Btu | 1.845 | $ (US Dollar) | MMBtu (Million Btu) |
| fixed price | Physical | 03/29/2012 11:15:36 | Matthew Wilson | 4/1/2012 | 4/30/2012 | SJBLAN (San Juan Blanco Pool) | Purchase | 10000 | MMBtu (Million Btu | 1.84 | $ (US Dollar) | MMBtu (Million Btu) |
| fixed price | Physical | 03/29/2012 13:10:41 | Matthew Wilson | 4/1/2012 | 4/30/2012 | SJBLAN (San Juan Blanco Pool) | Purchase | 10000 | MMBtu (Million Btu | 1.84 | $ (US Dollar) | MMBtu (Million Btu) |
| fixed price | Physical | 03/29/2012 13:15:41 | Matthew Wilson | 4/1/2012 | 4/30/2012 | SJBLAN (San Juan Blanco Pool) | Purchase | 10000 | MMBtu (Million Btu | 1.84 | $ (US Dollar) | MMBtu (Million Btu) |

7 sales totaling 55,000 MMBtu/d

7 purchases totaling 65,000 MMBtu/d

Gross molecules = 120,000 MMBtu/d
Net molecules = 10,000 MMBtu/d

- **Timing Trades With Downward NYMEX Trends on Day 4**: Wilson characterized his Day 4 San Juan trading, which took advantage of drops in the NYMEX price, as "key" to lowering TGPNA's weighted average price, thereby lowering the index price and benefiting its financial position.[218] As Wilson explained, "the NYMEX has dropped quite a bit on day 4 . . . and if we can trade more volume on day 4 and lower the weighted average, it's going to benefit our financial position. And that's why you're seeing so much more trading on day 4."[219] As reflected in the chart below,[220]

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[216] Wilson Test. Vol. II at 268:12-22. In discussing the April 2012 bidweek, Wilson noted that "Day 4 trading was definitely a big part of what really–alarm bells started going off for me." *Id.* at 269:25-270:3. Bondareva also considered day 4 trading in her analysis of the West Desk's bidweek trading activities. *See* Mateille Test. Ex. 9 (TGPNA F 01771676-77) (indicating in table which months contained day 4 trading).

[217] *See* TGPNA 000168145 (TGPNA Trade Data).

[218] Wilson Test. Vol. II at 282:6-284:2.

[219] *Id.* at 273:6-10.

Wilson took advantage of the downward NYMEX swing on day 4 to transact at low prices, including four trades at the bidweek-low price of $1.84. Wilson testified that he received praise and encouragement from colleagues at TGPNA for the role that his day 4 trades played in lowering their estimate of the index price at San Juan for April 2012.[221]


### 4. May 2012 at Permian

On April 23, 2012—the day before the May 2012 bidweek period—the West Desk had a long basis position of 67,498 MMBtu/day and a short index position of 64,992 MMBtu/day at Permian.[222] The combination of these positions going into bidweek created an overall long Print Risk position of approximately 4,000,000 MMBtu (4 Bcf) for the month of May 2012.[223] This position would make money from increasing prices

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[220] Enforcement created this chart based on ICE Data, TGPNA Trade Data (TGPNA 000168145), and NYMEX price data from the April 2012 bidweek at San Juan.

[221] Wilson Test. Vol. II at 284:3-286:18.

[222] *See id.* Ex. 2-5 (TGPNA F 02150795, West Desk Position Report for April 23, 2012).

[223] *See id.* Enforcement calculated this monthly Print Risk position by subtracting the West Desk's index position (-64,992 MMBtu/day) from its basis position (67,498 MMBtu/day) and multiplying the result by the number of days in May. *Id.*

(i.e., if the published monthly index price at Permian went higher), and would lose money from lower prices. This created a strong financial motivation to push up prices. The West Desk had a short index position going into bidweek, meaning that it could purchase fixed price gas during bidweek to flatten this position and, simultaneously, benefit its long Print Risk position.

As Matt Wilson explained, TGPNA pushed up prices during bidweek using monthly fixed price trades. Trading on 4 of the 5 bidweek days, Wilson, Tran, and William Meyers entered into 31 monthly fixed price transactions at Permian, grossing approximately 6.8 Bcf and netting purchases of 4.3 Bcf of next-month gas.[224] Wilson testified that he purchased fixed price gas at Permian during this bidweek with the intent to "strengthen" (i.e., raise) the index price at Permian, thereby benefiting TGPNA's basis swap position there.[225] Wilson explained that during the first two days of this bidweek, he bought moderate volumes to flatten out his short index position, but on day 3 his trading ramped up to take advantage of an increase in the NYMEX price.[226] Wilson recalled openly discussing with Tran and others how voluminous trading of Permian gas at high prices during this bidweek would increase the Permian index price and TGPNA's basis position there.[227] Wilson also remembered receiving congratulatory remarks from TGPNA's management after his role in successfully implementing the scheme during this bidweek.[228]

The following trading behaviors and patterns further show Tran's and Wilson's intent to move up prices on behalf of TGPNA:[229]

- **Market Share of Fixed Price Trades**: Wilson and Tran established sufficient market share to move the index upward by dominating the market for monthly fixed price purchases at Permian during bidweek. Twenty-six of the 31 trades were purchases[230]—consistent with TGPNA's desire to push prices upward—and

[224] *Id.* Ex. 2-6 (Trade Data Extracted From TGPNA 000168145).

[225] *Id.* at 308:10-309:17.

[226] *Id.* at 310:11-312:19.

[227] *Id.* at 312:20-315:10. According to Wilson, William Meyers overheard Tran encouraging Wilson to trade and Meyers offered to help out, "add[ing] a couple of trades into the book."

[228] *Id.* at 333:20-335:2.

[229] Bondareva also found the appearance of "suboptimal trading" during the May 2012 bidweek period at Permian. *See infra* Section III.C.3; Mateille Test. Ex. 9 (TGPNA F 01771676-77); Bondareva Test. Vol. II at 38:22-39:14, 63:1-9.

[230] Wilson Test. Vol. II Ex. 2-6 (Trade Data Extracted From TGPNA 000168145).

TGPNA's trades made up almost 62 percent of the volumes transacted on ICE underlying the published index price at Permian.[231]

- **High Transaction Prices Relative to Others**: Consistent with the intent to move the index upward, Wilson and Tran transacted gas at Permian during bidweek at fixed prices higher than the prices traded by other market participants. Other market participants paid an average price on ICE of $1.89, which was 7 cents lower than the average price of TGPNA's ICE and off-ICE transactions ($1.96).[232] The final IFERC index price published at $1.93.[233] Wilson also had the highest priced fixed price trade at Permian over the course of the entire bidweek period ($2.03), as determined by TGPNA's Middle Office.[234]

- **Indifference to Price**: During a six-minute span on day 3, Wilson entered into four transactions—an off-ICE purchase of 15,000 MMBtu/day for $2.01 and three sales on ICE for a total of 20,000 MMBtu/day at prices ranging from $1.97 to $1.99.[235] Given Wilson's higher purchase price than sale prices in such a short period, he recognized that he "lost money on the fixed price trades on a decent volume."[236] Describing his motivation for making these trades, Wilson explained, "I wasn't concerned whether I made or lost money on the fixed price trades. I was concerned with having an impact on the first-of-the-month index."[237]

- **Timing Trades With Upward NYMEX Trends**: As reflected in the chart below, Wilson took advantage of the upward swing in NYMEX prices (green lines) on days 2

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[231] *See* ICE Data.

[232] *See id.*

[233] TGPNA F 01012776-777 (May 2, 2012, email and Attachment from Middle Office showing data collected from Platts and NGI from the May 2012 bidweek period).

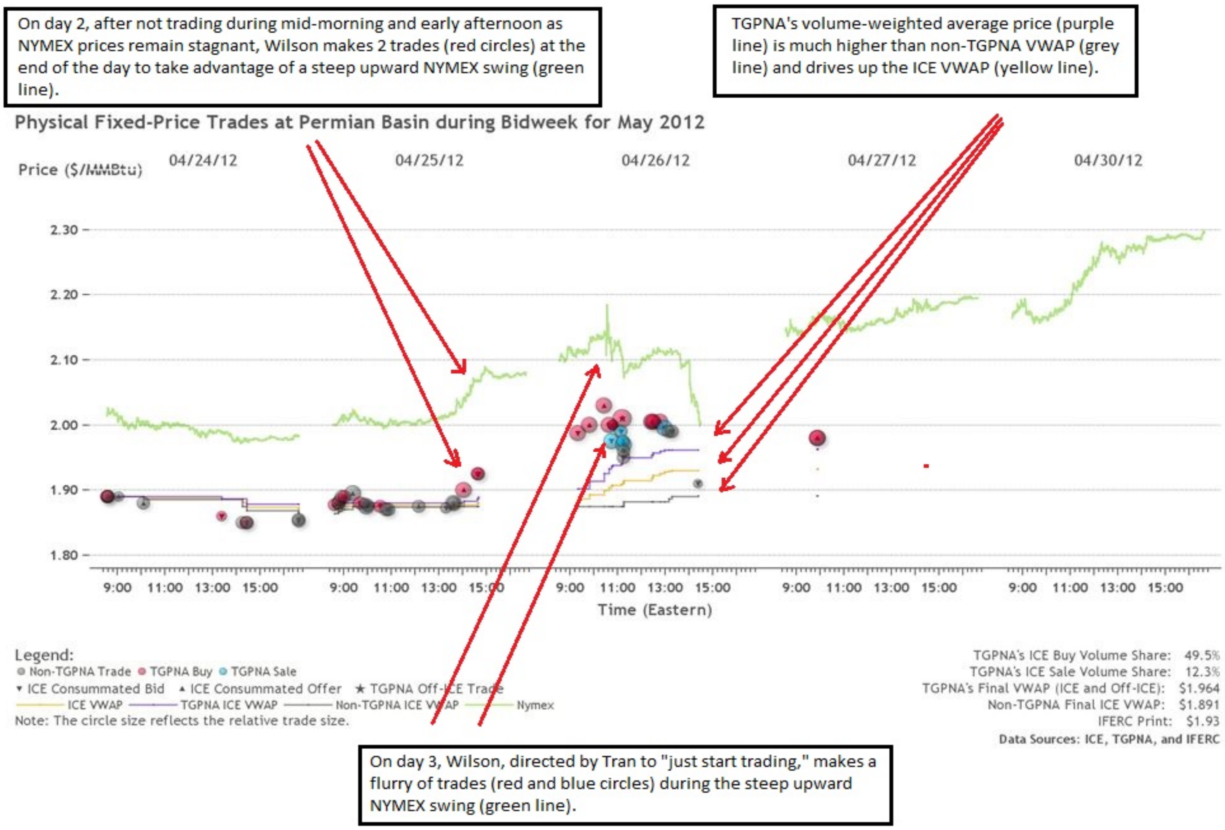
[234] *Id.*

[235] *See* TGPNA 000168145 (TGPNA Trade Data); Wilson Test. Vol. II at 317:19-318:3.

[236] Wilson Test. Vol. II at 318:4-5.

[237] *Id.* at 318:20-23. Bondareva found similar money-losing trades during the July 2012 bidweek at Waha. She explained that a purchase and sale executed five minutes apart on day 4 of this bidweek appeared suboptimal because the "sale [was] at a lower price than the subsequent buy." Bondareva Test. Vol. II at 96:21-22, Ex. 2-6. During this July 2012 bidweek at Waha, Bondareva also found that TGPNA executed "a buy and sell at the same price relatively close in time," as a further indication of suboptimal trading. *Id.* at 96:19-20, Ex. 2-6.

and 3.[238] Observing rising NYMEX prices and knowing they would correspond to higher prices at Permian, Wilson capitalized on this trend by engaging in heavy trading during these periods (red and blue circles). This was particularly true during the dramatic NYMEX swing on the morning of day 3. Wilson described what motivated his heavy trading during this period: Tran became very excited about the large NYMEX movement and started asking him about trading volumes to impact the index. Then, "she realized kind of mid-conversation that we don't need to be talking about volumes here, this is a 12-cent move in NYMEX, just start trading it, and let's not worry about the volume."[239] As Wilson recalled, "William Meyers overheard that conversation and offered to help as well."[240]




[238] Enforcement created this chart based on ICE Data, TGPNA Trade Data (TGPNA 000168145), and NYMEX price data from the May 2012 bidweek at Permian.

[239] Wilson Test. Vol. II at 320:6-10.

[240] *Id.* at 320:10-11. This testimony is also consistent with the trade data, which shows that Meyers made two off-ICE fixed price transactions during the time of the NYMEX swing. *See* TGPNA Trade Data (TGPNA 000168145). At the time, Meyers was the director of TGPNA's Texas Desk.

- **Day 4 Trading**: Tran was the only TGPNA trader who continued to trade on the fourth day of bidweek. Tran executed two purchases totaling 20,000 MMBtu/day on day 4, and these two trades accounted for the only day 4 fixed price trades on ICE at Permian.[241]

### C. Contemporaneous Documents Reveal Internal Concerns with the West Desk's Bidweek Trading

During the Relevant Period, TGPNA's Compliance Department, Middle Office, Risk Control Office, and senior management knew that the West Desk's bidweek trading raised compliance concerns for the same reasons that were later identified by Wilson and Callender and revealed in the trade data: large positions that profited from TGPNA's effect on published index prices; very high market share of fixed price volumes during bidweek; and deviation in its bidweek prices from the rest of the market.[242] Corporate officials knew, or should have known, that the behavior was potentially manipulative, and yet took no actions to investigate or stop the activity.

#### 1. Compliance Reports Raised Concerns With the Impact of the West Desk's Bidweek Trading on Index Prices and TGPNA's Related Positions

Gary Craven, TGPNA's Chief Compliance Officer from approximately 2008 through 2011, recognized that physical bidweek trading with the intent to benefit related financial positions could constitute market manipulation, and took proactive steps to alert senior management to the risk of such trading at TGPNA. After attending an educational seminar in early 2009 on trading compliance, Craven realized that TGPNA should have been "reviewing [its] trading activity for bid week a little more closely than [it was]."[243] Craven immediately began to do just that. At the conclusion of each bidweek from February 2009 through February 2011 he compiled reports for TGPNA management highlighting, among other things, (1) TGPNA's bidweek market share for trades at various points reported to index publications; (2) how its bidweek prices at those points differed from the rest of the market and affected the published index prices; and (3) how its bidweek trades affected the value of its Print Risk positions.[244] For example, each month Craven's reports contained a summary table with columns for "TGPNA Volume

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[241] *See* ICE Data.

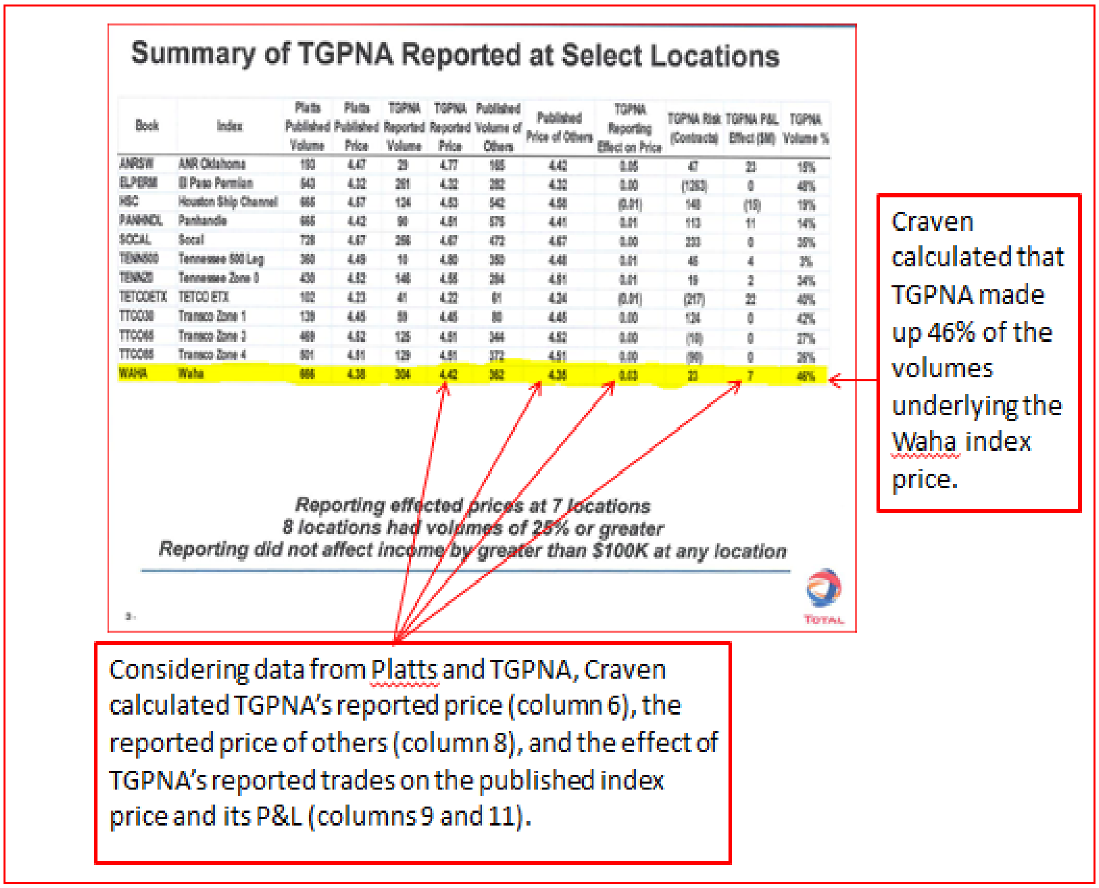
[242] The CFTC similarly found that "TGPNA's management was aware of TGPNA's high market share during bid-week and its possible impact on monthly index settlement prices and TGPNA's profit & loss." CFTC Settlement at 4.

[243] Testimony of Gary Craven at 80:21-82:22 (Nov. 21, 2013) (Craven Test.).

[244] *Id.* at 83:13-87:14, 123:14-124:16, Ex. 4. Craven analyzed in detail any point at which TGPNA's bidweek trading comprised 25 percent or more of the market, which he considered a "significant" market share. *Id.* at 96:18-97:5.

%," "TGPNA Reporting Effect on Price," and "TGPNA P&L Effect."[245]

For example, Craven analyzed the effect of TGPNA's bidweek trading at Waha during the December 2009 bidweek period, which is within the Relevant Period and one of the 38 point-months specifically identified in this Report. As shown below, Craven found that the West Desk's fixed price trades at Waha during this bidweek period made up 46 percent of the reported volumes during this bidweek period (column 12, titled "TGPNA Volume %"); affected the Waha published index by 3 cents (column 9, titled "TGPNA Reporting Effect on Price"); and benefited TGPNA's long Print Risk position by $7,000 (column 11, titled "TGPNA P&L Effect").[246]


Summary of TGPNA Reported at Select Locations

| Book | Index | Platts Published Volume | Platts Published Price | TGPNA Reported Volume | TGPNA Reported Price | Published Volume of Others | Published Price of Others | TGPNA Reporting Effect on Price | TGPNA Risk (Contracts) | TGPNA P&L Effect ($M) | TGPNA Volume % |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ANRSW | ANR Oklahoma | 193 | 4.47 | 29 | 4.77 | 165 | 4.42 | 0.05 | 47 | 23 | 15% |
| ELPERM | El Paso Permian | 543 | 4.32 | 261 | 4.32 | 282 | 4.32 | 0.00 | (1263) | 0 | 48% |
| HSC | Houston Ship Channel | 666 | 4.57 | 124 | 4.53 | 542 | 4.58 | (0.01) | 148 | (15) | 19% |
| PANHNDL | Panhandle | 665 | 4.42 | 90 | 4.51 | 575 | 4.41 | 0.01 | 113 | 11 | 14% |
| SOCAL | Socal | 728 | 4.67 | 256 | 4.67 | 472 | 4.67 | 0.00 | 233 | 0 | 35% |
| TENN500 | Tennessee 500 Leg | 360 | 4.49 | 10 | 4.50 | 350 | 4.48 | 0.01 | 45 | 4 | 3% |
| TENNZ0 | Tennessee Zone 0 | 430 | 4.52 | 146 | 4.55 | 284 | 4.51 | 0.01 | 19 | 2 | 34% |
| TETCOETX | TETCO ETX | 102 | 4.23 | 41 | 4.22 | 61 | 4.24 | (0.01) | (217) | 22 | 40% |
| TTCO30 | Transco Zone 1 | 139 | 4.45 | 59 | 4.45 | 80 | 4.45 | 0.00 | 124 | 0 | 42% |
| TTCO65 | Transco Zone 3 | 469 | 4.52 | 125 | 4.51 | 344 | 4.52 | 0.00 | (10) | 0 | 27% |
| TTCO85 | Transco Zone 4 | 501 | 4.51 | 129 | 4.51 | 372 | 4.51 | 0.00 | (90) | 0 | 26% |
| WAHA | Waha | 666 | 4.38 | 304 | 4.42 | 362 | 4.35 | 0.03 | 23 | 7 | 46% |



The above analysis assumed that TGPNA's counterparties did not also report their fixed price trades to index publishers. However, Craven also analyzed TGPNA's trades each month assuming that its counterparties also reported their trades. For example, Craven's above analysis of TGPNA's December 2009 fixed price trades at Waha, assuming its counterparties also reported, found that the fixed price trades made up 91 percent of the

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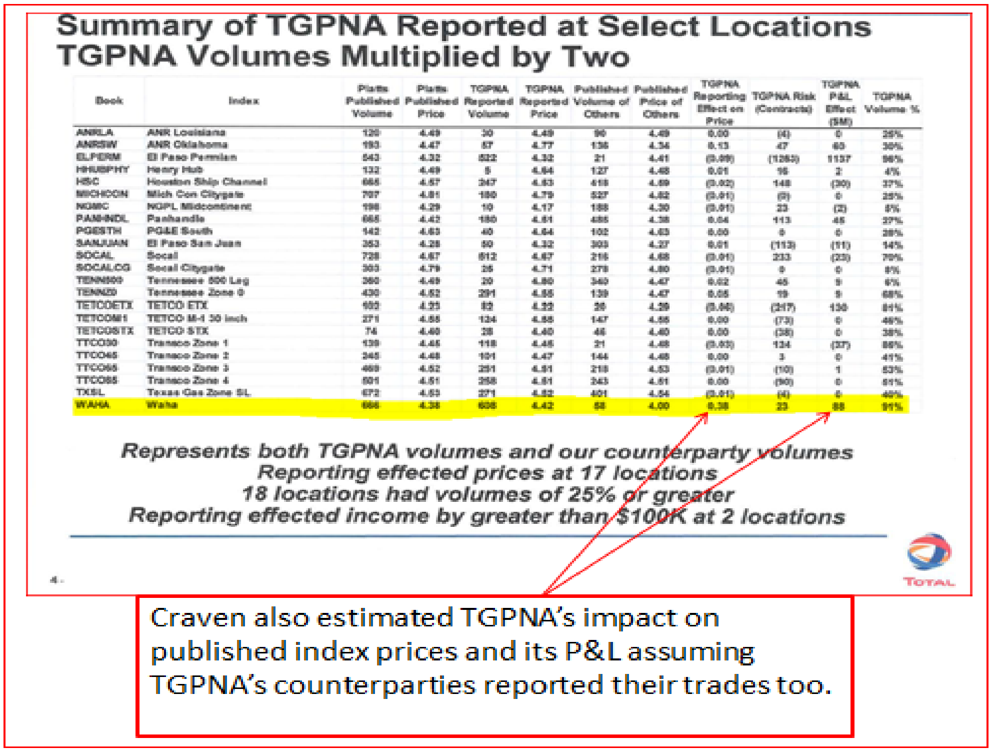
[245] *See, e.g.*, Craven Test. Ex. 4 at TGPNA 001986909 (showing table for May 2010 bidweek period).

[246] *Id.* Ex. 4 at TGPNA 001986942 (highlighting and graphics added).

reported volumes during this bidweek period (column 12); affected the Waha published index by 38 cents (column 9); and benefited TGPNA's long Print Risk position by $88,000 (column 11).[247]




| Book | Index | Platts Published Volume | Platts Published Price | TGPNA Reported Volume | TGPNA Reported Price | Published Volume of Others | Published Price of Others | TGPNA Reporting Effect on Price | TGPNA Risk (Contracts) | TGPNA P&L Effect ($M) | TGPNA Volume % |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ANRLA | ANR Louisiana | 120 | 4.49 | 30 | 4.49 | 90 | 4.49 | 0.00 | (4) | 0 | 25% |
| ANRSW | ANR Oklahoma | 193 | 4.47 | 57 | 4.77 | 136 | 4.34 | 0.13 | 47 | 60 | 30% |
| ELPERM | El Paso Permian | 543 | 4.32 | 522 | 4.32 | 21 | 4.41 | (0.09) | (1263) | 1137 | 96% |
| HHUBPHY | Henry Hub | 132 | 4.49 | 5 | 4.64 | 127 | 4.48 | 0.01 | 16 | 2 | 4% |
| HSC | Houston Ship Channel | 665 | 4.57 | 247 | 4.63 | 418 | 4.59 | (0.02) | 148 | (30) | 37% |
| MICHCON | Mich Con Citygate | 707 | 4.81 | 180 | 4.79 | 527 | 4.82 | (0.01) | (0) | 0 | 25% |
| NGMC | NGPL Midcontinent | 198 | 4.29 | 10 | 4.17 | 188 | 4.30 | (0.01) | 23 | (2) | 5% |
| PANHNDL | Panhandle | 665 | 4.42 | 180 | 4.61 | 485 | 4.38 | 0.04 | 113 | 45 | 27% |
| PGESTH | PG&E South | 142 | 4.63 | 40 | 4.64 | 102 | 4.63 | 0.00 | 0 | 0 | 28% |
| SANJUAN | El Paso San Juan | 353 | 4.28 | 50 | 4.32 | 303 | 4.27 | 0.01 | (113) | (11) | 14% |
| SOCAL | Socal | 728 | 4.67 | 512 | 4.67 | 216 | 4.68 | (0.01) | 233 | (23) | 70% |
| SOCALCG | Socal Citygate | 303 | 4.79 | 25 | 4.71 | 278 | 4.80 | (0.01) | 0 | 0 | 8% |
| TENN500 | Tennessee 500 Leg | 360 | 4.49 | 20 | 4.80 | 340 | 4.47 | 0.02 | 45 | 9 | 6% |
| TENNZ0 | Tennessee Zone 0 | 430 | 4.52 | 291 | 4.55 | 139 | 4.47 | 0.05 | 19 | 9 | 68% |
| TETCOETX | TETCO ETX | 102 | 4.35 | 82 | 4.32 | 20 | 4.29 | (0.06) | (217) | 130 | 81% |
| TETCOM1 | TETCO M-1 30 inch | 271 | 4.88 | 124 | 4.88 | 147 | 4.88 | 0.00 | (73) | 0 | 46% |
| TETCOSTX | TETCO STX | 74 | 4.40 | 28 | 4.40 | 46 | 4.40 | 0.00 | (38) | 0 | 38% |
| TTCO30 | Transco Zone 1 | 139 | 4.45 | 118 | 4.45 | 21 | 4.48 | (0.03) | 134 | (37) | 86% |
| TTCO45 | Transco Zone 2 | 245 | 4.48 | 101 | 4.47 | 144 | 4.48 | 0.00 | 3 | 0 | 41% |
| TTCO65 | Transco Zone 3 | 469 | 4.52 | 251 | 4.51 | 218 | 4.53 | (0.01) | (10) | 1 | 53% |
| TTCO85 | Transco Zone 4 | 501 | 4.51 | 258 | 4.51 | 243 | 4.51 | 0.00 | (90) | 0 | 51% |
| TXSL | Texas Gas Zone SL | 672 | 4.53 | 271 | 4.52 | 401 | 4.54 | (0.01) | (4) | 0 | 40% |
| WAHA | Waha | 666 | 4.38 | 608 | 4.42 | 58 | 4.00 | 0.38 | 23 | 88 | 91% |

Craven's calculations each bidweek period raised concerns for him, such that in his first monthly report in February 2009, he cited FERC and CFTC compliance concerns in recommending to senior management that TGPNA consider "ramping down its fixed price and physical basis trading in the markets in which it has a large share."[248] Craven further recommended that TGPNA "[c]onsider compliance both in terms of fact and appearance."[249]

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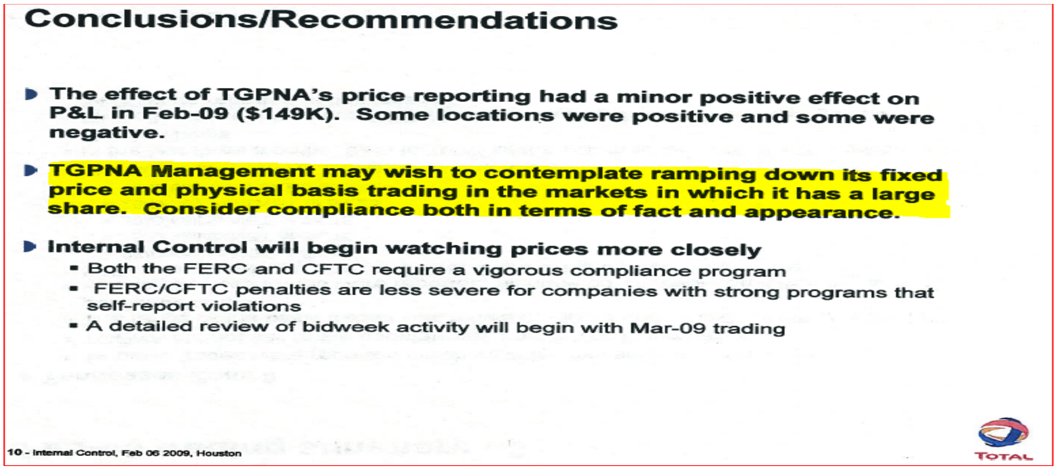
[247] *Id.* Ex. 4 at TGPNA 001986943 (highlighting and graphics added).

[248] *Id.* Ex. 4 at TGPNA 001987005 (highlighting added).

[249] *Id.*




Craven's reports also raised compliance concerns for TGPNA management. After reviewing Craven's February 2009 report, TGPNA's President, Bruce Henderson, sent a memorandum to and met with executives of Total and TGPL about TGPNA's very high market share at several trading points and resultant regulatory scrutiny.[250] Henderson urged increased monitoring and compliance efforts related to such trading at TGPNA.[251]

TGPNA also recognized that the data (and the specific language Craven used to describe the data) raised compliance concerns. Thus, in his September 2010 report, Craven revised some of the language in his reports at the suggestion of the law firm of Covington & Burling LLP.[252] For example, until this time, Craven labeled his calculation for the effect of TGPNA's bidweek fixed price trades on the published index price as "TGPNA Reporting Effect on Price." Starting in September 2010, after Covington reviewed the documents, Craven still calculated this figure, but, apparently concerned about the legal and compliance implications of his description, labeled it simply "Dif."[253]

Despite the concerns raised by Craven's reports, there is no evidence that TGPNA management, or Total or TGPL, conducted any meaningful inquiries regarding the trading activity that Craven flagged.[254] Craven recognized that an appropriate inquiry

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[250] Mateille Test. Ex. 8 (TGPNA F 02094992-93).

[251] *Id.*

[252] *See* TGPNA F 01739448-449 (September 8, 2010, email from Gary Craven to Bruce Henderson, attaching September 2010 Monthly Price Reporting Review) ("New format at Covington's suggestion").

[253] *Id.*

[254] Nguyen Test. Vol. III at 296:20-298:5; Hall Test. Vol. II at 209:15-212:8 (Neither Tran nor Hall recalled managers ever asking about their high market share during bidweek). Laurent Vivier, TGPNA's Vice President of Trading at the time when Craven conducted his bidweek reviews, recalled receiving Craven's reports and

would include interviewing traders and reviewing their contemporaneous communications to ascertain the circumstances of their trades and underlying intent,[255] but he never took any of these steps after identifying bidweek months when West Desk traders had large market shares benefiting their financial positions. There is also no evidence that TGPNA management ever substantively acted upon its Chief Compliance Officer's concerns.

### 2. Middle Office Reports Raised Concerns With TGPNA's Market Share of Reported Bidweek Trades Contributing to Index Prices

In addition to Craven's reports, since 2007 TGPNA's Middle Office issued monthly reports showing each of TGPNA's trading desks' market share of reported bidweek trades contributing to monthly index prices. For example, as shown below, the report from December 2009—during which TGPNA manipulated the Waha and Permian index prices—notified TGPNA management that TGPNA's bidweek trades at several locations, including Waha and Permian, "represented a very high Market Share in terms of number of deals and Volume done at that point."[256] These reports also alerted management to locations where TGPNA's bidweek trades constituted the high and low prices contributing to the index. The reports attached charts showing the actual bidweek trade data, which the Middle Office compiled from information provided by Platts and NGI, as well as its own trade data.[257]

"remember[s] questioning some traders following reading a report," but he does not recall specific details of such communications. Vivier Test. at 164:16-165:9. Enforcement does not find it credible that TGPNA's Vice President of Trading would not recall more details from his communications about specific concerns raised by the company's chief compliance officer about potentially non-compliant trading.

[255] Craven Test. at 157:19-158:12. In investigating behavior by a trader on the Texas Desk, Craven was easily able to obtain and review phone calls and instant messages and to analyze specific trades. *See id*. at 248:21-249:6; 271:7-11.

[256] TGPNA F 01267891 (December 2, 2009, email regarding Inside FERC/NGI Review) (highlighting added).

[257] *See, e.g.*, TGPNA F 01267892 (Inside FERC Reporting Summary).

| | |
|---|---|
| **From:** | Linh TU/US/Gaspower/Corp |
| **Sent:** | Wednesday, December 02, 2009 10:43:50 AM |
| **To:** | Bruce HENDERSON/US/Gaspower/Corp@GASPOWER; Laurent VIVIER/US/Gaspower/Corp@GASPOWER; Aaron HALL/US/Gaspower/Corp@GASPOWER; William MEYERS/US/Gaspower/Corp@GASPOWER; Alan KINZY/US/Gaspower/Corp@GASPOWER; Darryl KENNEDY/US/Gaspower/Corp@GASPOWER; Kari DILLARD/US/Gaspower/Corp@GASPOWER |
| **Cc:** | Paul MCCORDIC/US/Gaspower/Corp@GASPOWER; Philippe CHAUVAIN/GBR/Gaspower/Corp@GASPOWER; Gary CRAVEN/US/Gaspower/Corp@GASPOWER |
| **Subject:** | Inside FERC/ NGI Review - November 2009 |
| **Attach:** | Inside FERC - NGI Review 2009 12 rpt.xls |

Inside FERC Index:

All reported prices were within the published range this month.

We were the high at 7 locations and the low at 8.

A few locations represented a very high Market Share in terms of number of deals and Volume done at that point:

El Paso Permian: 50% on deals and 48% of Volume
Tetco ETX: 50% on deals and 40% of Volume
Transco Zone 1: 33% on deals and 42% of Volume
Waha: 45% on deals and 46% of Volume

As shown above, the Middle Office notified management after the December 2009 bidweek period that TGPNA's bidweek trades made up 50 percent of the deals and 48 percent of the volumes contributing to the Permian index price, and that it had the low price at Permian that month.[258] This information should have been revealing, given that TGPNA also had a very large short monthly Print Risk position of more than 12 Bcf at Permian heading into the December 2009 bidweek period, which would have benefited from a lower index price.[259] Similarly, TGPNA's bidweek trades made up 45 percent of the deals and 46 percent of the volumes contributing to the Waha index price, and TGPNA had the high price at Waha during this December 2009 bidweek period.[260] In addition, the Middle Office's report calculated that the average of TGPNA's reported

[258] *See* TGPNA F 01267891-01267892.

[259] *See* TGPNA F 02150746 (West Desk Position Report for Nov. 20, 2009). Enforcement calculated this monthly Print Risk position by subtracting TGPNA's index position (156,601 MMBtu/day) from its basis position (-250,793 MMBtu/day) and multiplying the result by the number of days in December. *Id.*

[260] *See* TGPNA F 01267891-01267892.

prices at Waha was 4 cents greater than the published index price.[261] As was the case for Permian, this information would have been telling for TGPNA's management, given that TGPNA had a very large long monthly Print Risk position of approximately 8 Bcf at Waha heading into the December 2009 bidweek period, which would have benefited from a higher index price.[262]

In fact, these Middle Office reports did raise concerns with TGPNA management. After reviewing one such report in 2007, TGPNA's Vice President of Trading at the time, Laurent Vivier, told the Middle Office that "[i]n light of the recent development of the CFTC and their increased scrutiny, we need to be more accountable of our activity in places where TGPNA holds a substantial share of the overall volume traded at one single point."[263] Vivier then directed the Middle Office to start "enquir[ing] about the specific reason which have prompted TGPNA to trade more than 40% of the overall volumes traded at one single point. This should be a written exercise where the concerned trader will be able to explain his/her motivation."[264] Vivier acknowledged that bidweek market share "was a point of scrutiny" during his time at TGPNA, but does not recall specifically discussing the issue with any traders at TGPNA.[265] There is no evidence that Vivier's directive (i.e., to ask traders about the reasons for their trades) was acted upon.

### 3. Risk Control Analysis Corroborated Wilson's Account of West Desk's Bidweek Trading Conduct

Potential manipulation by TGPNA's West Desk was also highlighted by Wilson's internal whistleblowing activities. Wilson sent an email to TGPNA's President, Bruce Henderson, on June 10, 2012, stating that "I have learned that some of the west team trading activity may not be entirely above board, and should be closely examined. At best, I think these activities would generate an ethics discussion and, at worst could be a violation of federal regulations."[266] Shortly after receiving this email, Henderson alerted senior management at Total and TGPL, and asked TGPNA's Vice President of Risk Control, Natalie Bondareva, to analyze the West Desk's bidweek trading.

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[261] *See* TGPNA F 01267892 (indicating that the average price of TGPNA's reported trades ($4.42) was 4 cents higher than the published index price of $4.38).

[262] *See* TGPNA F 02150746 (West Desk Position Report for Nov. 20, 2009). Enforcement calculated this Print Risk position by subtracting TGPNA's index position (-82,609 MMBtu/day) from its basis position (174,833 MMBtu/day) and multiplying the result by the number of days in December. *Id.*

[263] Vivier Test. Ex. 7 (TGPNA 001904224).

[264] *Id.*

[265] *Id.* at 111:4-14.

[266] TGPNA F 01012412 (June 10, 2012, email from Matt Wilson to Bruce Henderson).

Bondareva analyzed the West Desk’s bidweek trading at Permian, San Juan, SoCal, and Waha between July 2011 and July 2012. Her analysis identified numerous months when the desk had a high market share of fixed price trades contributing to the index, and noted that the desk had a market share above 15 percent during 77 percent of the months.[267]

Market Share (Volume) in Index settlement

| Index | Jul-11 | Aug-11 | Sep-11 | Oct-11 | Nov-11 | Dec-11 | Jan-12 | Feb-12 | Mar-12 | Apr-12 | May-12 | Jun-12 | Jul-12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| El Paso Permian (Platts) | 41% | 49% | 45% | 39% | 41% | 23% | 30% | 12% | 12% | 1% | 38% | 29% | 22% | |
| El Paso San Juan (Platts) | 19% | 16% | 18% | 41% | 19% | 25% | 10% | 16% | 2% | 29% | 17% | 15% | 11% | |
| Socal (NGI) | 42% | 23% | 42% | 22% | 28% | 26% | 14% | 2% | 25% | 18% | 9% | 26% | 25% | |
| Waha (Platts) | 30% | 24% | 40% | 30% | 21% | 0% | 52% | 28% | 10% | 37% | 0% | 35% | 44% | 52 |
| Threshhold | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | |
| | | | | | | | | | | | | | | 0.230769 |
| | | | | | | | | | | | | | | 77% |

In addition, based on her review of the trade data, Bondareva identified “patterns that looked like suboptimal trading.”[268] Bondareva provided management with a report on her findings, which included a table, shown below, identifying specific months when she identified the “patterns that looked like suboptimal trading.”[269] She identified the appearance of suboptimal trading in 27 point-months between July 2011 and July 2012, including 13 of the point-months for which Enforcement is recommending penalties.

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[267] *See* Mateille Test. Ex. 9 (TGPNA F 01771676-77).

[268] Bondareva Test. Vol. II at 63:1-9. Bondareva defined “suboptimal” trading as “buying or selling at a loss, high trade concentration, [and] buying and selling at the same price.” *Id.* at 39:7-14, 48:1-4.

[269] Mateille Test. Ex. 9 (TGPNA F 01771676-77) (highlighting added).

| 8 | | El Paso Permian (Platts) | | | | | El Paso San Juan (Platts) | | | | | Socal (NGI) | | | | | Waha (Platts) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9 | | Print Risk (in Bcf) | | | Subopt Trades | Day 4 Trades | Print Risk (in Bcf) | | | Subopt Trades | Day 4 Trades | Print Risk (in Bcf) | | | Subopt Trades | Day 4 Trades | Print Risk (in Bcf) | | | Subopt Trades | Day 4 Trades |
| 10 | | Financial Deals | Physical Deals | Total | (Y/N) | (Y/N) | Financial Deals | Physical Deals | Total | (Y/N) | (Y/N) | Financial Deals | Physical Deals | Total | (Y/N) | (Y/N) | Financial Deals | Physical Deals | Total | (Y/N) | (Y/N) |
| 11 | Jul-11 | 7.6 | -1.1 | 6.5 | Y | Y | 1 | -2.8 | -1.8 | N | N | 14.9 | 8.2 | 23.1 | Y | Y | 1.48 | -0.08 | 1.4 | N | N |
| 12 | Aug-11 | 11.3 | 2.6 | 13.9 | N | N | 1.6 | -1.2 | 0.4 | Y | N | 3 | 3.9 | 6.9 | Y | N | -1 | 0.2 | -0.8 | N | N |
| 13 | Sep-11 | -6.3 | -6.8 | -13.1 | Y | Y | -0.4 | -2.6 | -3 | Y | Y | 6.1 | 1.1 | 7.2 | Y | Y | 3 | 1.9 | 4.9 | N | Y |
| 14 | Oct-11 | -1.7 | -4.2 | -5.9 | Y | Y | -5.9 | -3 | -8.9 | Y | Y | 0.1 | 5.7 | 5.8 | N | N | 1.4 | 1.8 | 3.2 | N | N |
| 15 | Nov-11 | -7.24 | -0.06 | -7.3 | Y | N | 3.7 | -1.5 | 2.2 | N | Y | -0.8 | -3.3 | -4.1 | Y | N | 2.5 | -0.7 | 1.8 | Y | Y |
| 16 | Dec-11 | -0.3 | -1.6 | -1.9 | Y | N | -2.3 | -3.2 | -5.5 | N | N | 7.2 | 0 | 7.2 | Y | Y | | | | | |
| 17 | Jan-12 | -0.6 | -3 | -3.6 | Y | Y | | | | | | | | | | | -2.5 | -1.3 | -3.8 | Y | Y |
| 18 | Feb-12 | | | | | | -0.5 | -1.7 | -2.2 | Y | N | | | | | | 0.5 | 2.8 | 3.3 | Y | Y |
| 19 | Mar-12 | | | | | | | | | | | -4.7 | 0 | -4.7 | Y | Y | | | | | |
| 20 | Apr-12 | | | | | | -7.3 | -2.2 | -9.5 | Y | Y | 9.2 | 0 | 9.2 | Y | Y | -1.6 | 0.4 | -1.2 | Y | Y |
| 21 | May-12 | 4.7 | 0 | 4.7 | Y | Y | 0 | 0 | 0 | N | N | | | | | | | | | | |
| 22 | Jun-12 | 0.2 | 0 | 0.2 | Y | N | 0.43 | 0.07 | 0.5 | N | N | -4.2 | 0 | -4.2 | Y | Y | 0.3 | 0.9 | 1.2 | N | N |
| 23 | Jul-12 | 0.9 | -0.5 | 0.4 | N | N | | | | | | 6.6 | 0 | 6.6 | Y | N | -5.1 | 1.7 | -3.4 | Y | Y |

Like Craven, Bondareva realized that a full inquiry into suspicious trades would require analysis of the traders' contemporaneous communications, as well as interviews to ascertain any legitimate business purpose.[270] Bondareva understood that such an analysis would be the responsibility of the compliance officer and senior management.[271] However, TGPNA management neglected to do any meaningful review, despite Tom Earl's realization that Bondareva's inquiry raised compliance concerns.[272] Tran executed the vast majority of relevant trades analyzed and characterized as "suboptimal" by Bondareva. However, there is no evidence that management ever questioned Tran about her trades, and Tran testified that no one ever talked to her about these trades.[273] In fact, Tran testified that she had never seen or heard about Bondareva's analysis.[274] Instead of talking to Tran, TGPNA had a single communication with Karimullah about his trades during the July 2012 bidweek period at Waha, and his reported explanation does not explain his behavior.[275]

[270] Bondareva Test. Vol. II at 114:11-116:18, 124:5-15, Ex. 2-6 (TGPNA F 1771711.0008).

[271] *Id.* at 116:12-18, 138:3-21.

[272] *Id.* Ex. 2-6 (TGPNA F 1771711) (July 17, 2012, email from Tom Earl, forwarding Bondareva's analysis and noting that "this also confirms we need to investigate & possibly revise our bid week activities").

[273] Nguyen Test. Vol. III at 302:8-12.

[274] *Id.* at 301:20-302:15.

[275] *See* Mateille Test. Ex. 11 (TGPNA F 01771699) (According to Tom Earl, Karimullah claimed his "strategy was to market-make at Waha for profit" by "placing fixed price Waha bids/offers . . . and subsequently . . . 'stripping out' the NYMEX . . .

### D. Hall and Tran Adopted and Revised Bidweek Spreadsheets to Manage and Track the West Desk's Bidweek Trading Scheme

TGPNA's West Desk traders used uniquely tailored bidweek spreadsheets to monitor in real time the effect of their physical trading on index prices and their related Print Risk positions. The West Desk's use of these spreadsheets shows that it had all of the information needed to execute and monitor the scheme readily available in real time. Moreover, the West Desk's use of these spreadsheets refutes any argument that its traders did not know or understand how their physical bidweek trading affected their Print Risk positions. Although TGPNA's other desks also used spreadsheets to monitor bidweek trading, the West Desk's version was uniquely detailed and contained information critical to the manipulative scheme, as discussed below.

These spreadsheets assisted the desk in executing its scheme by providing traders with an information dashboard to keep them apprised of how their scheme was working and to modify trading behaviors based on the real-time results. The following image is the first tab (i.e., the "Position" tab) of these spreadsheets.[276]

31 column d goes into mc look at fp pre-settle

| | | | | | | | | | | Current Value | | | Phys Basis | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bid Week | Basis | Index | FP (Nymex) | Print risk | % Set by FP | %PB | Est FP % | Implied Nymex | Proj. Index | Current Value | Basis | Index | Start / D1 | Post D1 / D2 | Post D2 / D3 | Post D3 / D4 | Post D4 / D5 |
| Socal | (223,355) | (80,000) | (130,000) | (143,355) | 85% | 1% | 85% | 121,852 | 2.1700 | 2.116 | 0.134 | -0.054 | 0.125 | 0.105 | 0.080 | | |
| Gate | (208) | (8) | 0 | (200) | 88% | 1% | 83% | 176 | 2.3200 | 2.311 | 0.284 | -0.009 | 0.310 | 0.280 | 0.275 | | |
| hsc | 800 | - | 0 | 800 | 79% | 1% | 79% | (632) | 1.9660 | 1.966 | -0.070 | 0.000 | -0.065 | -0.070 | -0.070 | | |
| SanJuan | 66,500 | 66,536 | 29,000 | (36) | 78% | 1% | 78% | 28 | 1.8400 | 1.866 | -0.196 | 0.026 | -0.160 | -0.170 | -0.170 | | |
| Perm | 212,600 | 80,100 | 145,100 | 132,500 | 84% | 1% | 84% | (111,300) | 1.9300 | 1.921 | -0.106 | -0.009 | -0.113 | -0.130 | -0.115 | | 92 bid |
| Waha | 28,913 | (19,020) | 18,900 | 47,933 | 42% | 1% | 42% | (20,132) | 1.9400 | 1.966 | -0.096 | 0.026 | -0.075 | -0.085 | -0.070 | | |
| Rockies | - | - | 0 | 0 | 85% | 1% | 85% | 0 | 1.8500 | 1.876 | -0.186 | 0.026 | -0.150 | -0.190 | -0.160 | | |
| Panhandle | 15,242 | 20,242 | 15,000 | (5,000) | 83% | 1% | 83% | 4,150 | 1.8700 | 1.881 | -0.166 | 0.011 | -0.155 | -0.150 | -0.155 | | |
| Malin | - | - | 0 | 0 | 69% | 1% | 81% | 0 | 1.8900 | 1.911 | -0.146 | 0.021 | -0.130 | -0.150 | -0.125 | | |
| MERC | | | (27,758) | | | | | | MERC | 2.036 | | | | | | | |
| HUB | | | (42,500) | | | | | | HUB | 2.036 | | | | | | | |
| TOTAL | 100,492 | 67,850 | 50,242 | 32,642 | | | | (5,858) | | | | | | | | | |

| | |
|---|---|
| MERC POSITION | 1,884 |
| in lots | 6 |
| FP POSITION | 25,350 |

| | Prompt Y | Prompt | Prompt+1 Y | Prompt+1 |
|---|---|---|---|---|
| MERC | 1.9750 | 2.036 | 2.0630 | #NAME? |
| HUB | 1.9750 | 2.0360 | #NAME? | -0.112 |

| | sprds est. index | current spread | marked |
|---|---|---|---|
| socal.sj | 0.3300 | 0.250 | 0.233 |
| socal.perm | 0.2400 | 0.195 | 0.218 |
| baja | 0.1500 | 0.195 | 0.218 |
| waha.perm | 0.0100 | 0.045 | 0.105 |
| perm.sj | 0.0900 | 0.055 | 0.015 |
| socal.waha | 0.2300 | 0.150 | 0.113 |
| sj.roz | -0.0100 | -0.010 | 0.010 |
| waha.sj | 0.1000 | 0.100 | 0.120 |
| Socal.roz | 0.3200 | 0.240 | 0.243 |

| | | | |
|---|---|---|---|
| FP | | | |
| BASIS | | | |
| INDEX | | | |

Insert Deals

=BDP("NG1 Comdty","Last_
"=BDH("NG1 Comdty","PX_

TILL AFTER SETTLE
'keep h35 = to h36
'keep i35 = to i36
'keep j36 = h35 and k35 = h35

| | Basis | | | | | Index | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Start / D1 | Post D1 / D2 | Post D2 / D3 | Post D3 / D4 | Post D4 / D5 | Start / D1 | Post D1 / D2 | Post D2 / D3 | Post D3 / D4 | Post D4 / D5 | Fixed | Basis | Index | FP |
| Socal | 0.185 | 0.145 | 0.090 | 0.090 | | -0.0100 | -0.0150 | 0.0150 | -0.0475 | | 2.079 | - | 29,063 | (122,915) |
| Gate | 0.335 | 0.305 | 0.250 | 0.250 | | 0.0000 | 0.0000 | 0.0300 | 0.0100 | | 2.296 | - | 5 | - |
| hsc | -0.053 | -0.065 | | | | 0.0000 | 0.000 | | | | 1.971 | (310) | - | - |
| SanJuan | -0.175 | -0.160 | -0.210 | -0.210 | | 0.0075 | 0.0050 | 0.0400 | 0.0200 | | 1.846 | - | (57,372) | 104,005 |
| Perm | -0.125 | -0.110 | -0.170 | -0.170 | | 0.0025 | -0.0025 | 0.0400 | -0.0050 | | 1.861 | - | (2,232) | 125,941 |
| Waha | -0.075 | -0.070 | -0.095 | -0.095 | | -0.0100 | -0.0050 | 0.0100 | 0.0250 | | 1.966 | - | 6,268 | 35,740 |
| Rockies | -0.188 | -0.180 | -0.240 | -0.240 | | 0.0250 | 0.0250 | 0.0500 | 0.0400 | | 1.836 | - | - | - |
| Panhandle | -0.155 | -0.150 | -0.190 | -0.190 | | 0.0000 | -0.0100 | 0.0400 | 0.0200 | | 1.866 | - | (12,550) | 28,365 |
| Malin | -0.135 | -0.125 | -0.170 | -0.170 | | 0.003 | 0.0000 | 0.0200 | 0.0050 | | 1.871 | - | - | - |
| | | | | | | | | | | | | (28,365) | <-hub merc-> | (189,588) |

Masks (M) or real Time (r) m

| PNL | New Deals | Curve Shift |
|---|---|---|
| FP | (64,751) | (46,817) |
| BASIS | 19,375 | (310) |
| INDEX | 35,263 | (36,819) |
| Overall | (10,114) | (83,946) |
| (94,060) | | |

component [and] then closing out the basis position in the basis market for 1 [cent] profit on each trade").

[276] Wilson Test. Vol. II Ex. 2 (TGPNA 001833603, April 30, 2012, bidweek spreadsheet).

| | | Estimated Daily Volume | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | PERM | our PERM | VAHA | our VAHA | SOCAL | our socal | SANJUAN | our SJ |
| Day | weights | 375,000 | | 60,000 | | 425,000 | | 300,000 | |
| 1 | 0.4 | 150,000 | - | 24,000 | - | 170,000 | - | 120,000 | - |
| 2 | 0.3 | 112,500 | - | 18,000 | - | 127,500 | - | 90,000 | - |
| 3 | 0.2 | 75,000 | - | 12,000 | - | 85,000 | - | 60,000 | - |
| 4 | 0.1 | 37,500 | - | 6,000 | - | 42,500 | - | 30,000 | - |
| 5 | 0 | - | - | - | - | - | - | - | - |
| | 1.00 | | | | | | | | |

| FOM (Day 1) PnL based on Estimated vs. Actual Print | | | | | | |
|---|---|---|---|---|---|---|
| | PhysB Day3 | FP end day 3 | Projected Index | Delta | Risk | PnL |
| Socal | 0.043 | 2.170 | 2.170 | 0.000 | (143,355) | 0 |
| Gate | 0.260 | 2.320 | 2.320 | 0.000 | (200) | 0 |
| hsc | 0.000 | 1.966 | 1.966 | 0.000 | 800 | 0 |
| SanJuan | -0.190 | 1.840 | 1.840 | 0.000 | (36) | 0 |
| Perm | -0.175 | 1.930 | 1.930 | 0.000 | 132,500 | 0 |
| Vaha | -0.070 | 1.940 | 1.940 | 0.000 | 47,933 | 0 |
| Rockies | -0.200 | 1.850 | 1.850 | 0.000 | 0 | 0 |
| Panhandle | -0.170 | 1.870 | 1.870 | 0.000 | (5,000) | 0 |
| Malin | -0.165 | 1.890 | 1.890 | 0.000 | 0 | 0 |
| | | | | | | 0 |

OPTIONS FORMULA
=IF(Position!I34>9.15,-16129,0)

The bidweek spreadsheets tracked all aspects of the West Desk's bidweek trading, but included three critical components that were central to helping the traders track and manage the scheme. First, the spreadsheets included the West Desk's positions, calculated in terms of risk pool (i.e., Basis, Index, and Fixed Price risk), and additionally, calculated the desk's Print Risk, which comprised all basis and index positions whose value was tied to the published index price.[277]

31 column d goes into mc look at fp pre-settle

| Bid Week | Basis | Index | FP (Nymex) | Print risk |
|---|---|---|---|---|
| Socal | (223,355) | (80,000) | (130,000) | (143,355) |
| Gate | (208) | (8) | 0 | (200) |
| hsc | 800 | - | 0 | 800 |
| SanJuan | 66,500 | 66,536 | 29,000 | (36) |
| Perm | 212,600 | 80,100 | 145,100 | 132,500 |
| Vaha | 28,913 | (19,020) | 18,900 | 47,933 |
| Rockies | - | - | 0 | 0 |
| Panhandle | 15,242 | 20,242 | 15,000 | (5,000) |
| Malin | - | - | 0 | 0 |
| MERC | | | (27,758) | |
| HUB | | | (42,500) | |
| TOTAL | 100,492 | 67,850 | 50,242 | 32,642 |

This enabled the trader to know the desk's related positions and how those positions would benefit from trades, including TGPNA's trades, setting the index.

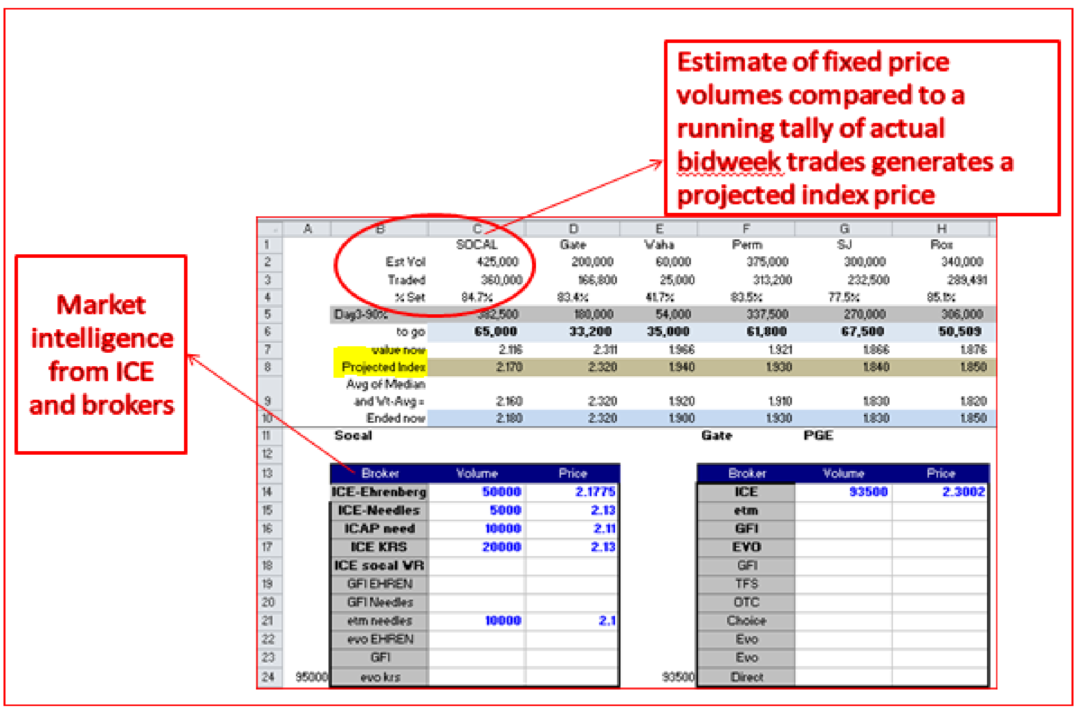
Second, throughout bidweek the spreadsheet kept a running projection of the published index price by calculating in real time the volume-weighted average of all fixed price trades they knew and believed would be reported to index publishers.

---

277 *Id.*

| G | H | I | J | K |
|---|---|---|---|---|
| % Set by FP | %PB | Est FP % | Implied Nymex | Proj. Index |
| 85% | 1% | 85% | 121,852 | 2.1700 |
| 88% | 1% | 83% | 176 | 2.3200 |
| 79% | 1% | 79% | (632) | 1.9660 |
| 78% | 1% | 78% | 28 | 1.8400 |
| 84% | 1% | 84% | (111,300) | 1.9300 |
| 42% | 1% | 42% | (20,132) | 1.9400 |
| 85% | 1% | 85% | 0 | 1.8500 |
| 83% | 1% | 83% | 4,150 | 1.8700 |
| 69% | 1% | 81% | 0 | 1.8900 |

The West Desk traders used sophisticated analytics and market intelligence to keep a running projection of the index price. Wilson described this process, explaining that the West Desk traders would make an "educated guess at the beginning of bid week of how much . . . will trade . . . based on your experience trading fixed price during bid week and what has traded historically. And then you keep tabs by day of how much is trading against what you think is the total."[278] To keep tabs on the fixed price trades in the market, the West Desk traders collected market data from ICE and brokers and kept running tallies of volume and price data they received.[279]




[278] Wilson Test. Vol. I at 98:2-7.

[279] *Id.* at 98:10-16; Wilson Test. Vol. II Ex. 2 (TGPNA 001833603, April 30, 2012, bidweek spreadsheet).

Some versions of the bidweek spreadsheets even explicitly noted which entities did not report their trades. Thus, for example, in the screenshot below, when the row tracking "the index if all reported" matches the row tracking "the index with known reporters," that signifies that TGPNA traded only with reporting entities.[280]

| | A | B | C | D | E | F | G | H |
|---|---|---|---|---|---|---|---|---|
| 1 | | | SOCAL | Gate | Waha | Perm | SJ | Box |
| 2 | | Est Vol | 615600 | 151500 | 210000 | 418300 | 372500 | 666400 |
| 3 | | Traded | 615600 | 151500 | 210000 | 418300 | 372500 | 666400 |
| 4 | | % Set | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| 5 | | | | | | | | |
| 6 | | to go | 0 | 0 | 0 | 0 | 0 | 0 |
| 7 | | value now | 6.812 | 7.272 | 6.562 | 6.472 | 6.472 | 6.092 |
| 8 | | Index if all Reported | 6.740 | 7.100 | 6.450 | 6.360 | 6.380 | 6.020 |
| 9 | | Index with known Reporting | 6.740 | 7.100 | 6.450 | 6.360 | 6.380 | 6.020 |
| 10 | | Avg of Median and Wt-Avg = | 6.740 | 7.110 | 6.440 | 6.370 | 6.380 | 6.030 |
| 11 | | Ended now | 6.740 | 7.100 | 6.450 | 6.360 | 6.380 | 6.020 |
| 12 | | | | | | | | |
| 13 | | Socal | | | | | | |
| 14 | | Trade # | Day | Report? | Party | Volume | Price | Reporting |
| 15 | DO NOT REPORT | 1 | 1 | Yes | ice | 160000 | 6.7656 | 160000 |
| 16 | Gila River | 2 | 1 | Yes | gfi | 10000 | 6.750 | 10000 |
| 17 | Cargill | 3 | 1 | Yes | saddle | 15000 | 6.750 | 15000 |
| 18 | Astra | 4 | 2 | Yes | ICE | 127100 | 6.731 | 127100 |
| 19 | Duke Field | 5 | 2 | Yes | gfi | 95000 | 6.733 | 95000 |
| 20 | Giant | 6 | 2 | Yes | astra | 12500 | 6.730 | 12500 |
| 21 | | 7 | 2 | Yes | evo | 15000 | 6.740 | 15000 |
| 22 | | 8 | 2 | Yes | evo | 10000 | 6.730 | 10000 |
| 23 | | 9 | 2 | Yes | evo | 25000 | 6.740 | 25000 |
| 24 | | 10 | 2 | Yes | saddle | 10000 | 6.730 | 10000 |
| 25 | | 11 | 2 | Yes | ICE | 53500 | 6.662 | 53500 |
| 26 | | 12 | 2 | Yes | gfi | 32500 | 6.698 | 32500 |
| 27 | | 13 | 3 | Yes | evo | 10000 | 6.6250 | 10000 |
| 28 | | 14 | 3 | Yes | saddle | 10000 | 6.6700 | 10000 |
| 29 | | 15 | 3 | Yes | saddle | 10000 | 6.6500 | 10000 |
| 30 | | 16 | 3 | Yes | ICE | 20000 | 6.9050 | 20000 |
| 31 | | 17 | 3 | Yes | | | | 0 |

Thus, comparing their historically-based estimate of total fixed price trades during bidweek with their running tally of actual trading—including, in some instances, knowledge of which trades would be reported—allowed the West Desk traders to project the index at any time during bidweek. As Hall explained, "[a]s trades were happening, we were posting the weighted volume price of the trades, so we could track the index."[281] Hall stated they were able to predict the index price with great accuracy:[282]

[280] TGPNA 001833645 (January 2008 bidweek) (highlighting added).

[281] Hall Test. Vol. I at 110:4-6.

[282] *Id.* at 122:6-11.

Q Well then how closely did you predict the index?
A Typically, extremely well.
Q What is extremely well mean?
A We typically did predict the index.
Q Exactly?
A Typically.

Third, the bidweek spreadsheets generated real-time P&L calculations based on the projected index, the current value of NYMEX, and the West Desk's benefiting Print Risk positions:[283]

| Masks (M) or real Time (r) | | m |
|---|---|---|
| PNL | New Deals | Curve Shift |
| FP | (64,751) | (46,817) |
| BASIS | 19,375 | (310) |
| INDEX | 35,263 | (36,819) |
| Overall | (10,114) | (83,946) |
| (94,060) | | |

The spreadsheet also broke down this running P&L by location:[284]

| | Basis | | | | | Index | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Start / D1 | Post D1 / D2 | Post D2 / D3 | Post D3 / D4 | Post D4 / D5 | Start / D1 | Post D1 / D2 | Post D2 / D3 | Post D3 / D4 | Post D4 / D5 | Fixed | Basis | Index | FP |
| Socal | 0.185 | 0.145 | 0.090 | 0.090 | | -0.0100 | -0.0150 | 0.0150 | -0.0475 | | 2.079 | - | 29,063 | (122,915) |
| Gate | 0.335 | 0.305 | 0.250 | 0.250 | | 0.0000 | 0.0000 | 0.0300 | 0.0100 | | 2.296 | - | 5 | - |
| hsc | -0.053 | -0.065 | | | | 0.0000 | 0.000 | | | | 1.971 | (310) | - | - |
| SanJuan | -0.175 | -0.160 | -0.210 | -0.210 | | 0.0075 | 0.0050 | 0.0400 | 0.0200 | | 1.846 | - | (57,372) | 104,005 |
| Perm | -0.125 | -0.110 | -0.170 | -0.170 | | 0.0025 | -0.0025 | 0.0400 | -0.0050 | | 1.861 | - | (2,232) | 125,941 |
| Waha | -0.075 | -0.070 | -0.095 | -0.095 | | -0.0100 | -0.0050 | 0.0100 | 0.0250 | | 1.966 | - | 6,268 | 35,740 |
| Rockies | -0.188 | -0.180 | -0.240 | -0.240 | | 0.0250 | 0.0250 | 0.0500 | 0.0400 | | 1.836 | - | - | - |
| Panhandle | -0.155 | -0.150 | -0.190 | -0.190 | | 0.0000 | -0.0100 | 0.0400 | 0.0200 | | 1.866 | - | (12,550) | 28,365 |
| Malin | -0.135 | -0.125 | -0.170 | -0.170 | | 0.003 | 0.0000 | 0.0200 | 0.0050 | | 1.871 | - | - | - |
| | | | | | | | | | | | | (28,365) | <-hub merc-> | (189,588) |

According to Karimullah, he monitored these P&L calculations, and the impact of TGPNA's trades on the P&L, in real time.[285] Hall confirmed that traders could track this

[283] Wilson Test. Vol. II Ex. 2 (TGPNA 001833603, April 30, 2012, bidweek spreadsheet).

[284] *Id.*

[285] Karimullah Test. at 115:12-116:5.

information.[286] Moreover, the bidweek spreadsheets allowed traders to test various trading scenarios to determine, for example, how much additional trading they would need to do to move the index and P&L in their favor. As Wilson testified, he was informed that "it's pretty easy to calculate how much we need to trade, because at this level, if we can trade another 40,000 or another 20,000 based on where we're calculating index, if we add in another 20,000 or 30,000 or 40,000 at this 10-cent higher level we will move the index by one penny."[287]

Although TGPNA's other desks employed their own versions of bidweek spreadsheets, the West Desk's version (which Hall and Tran modified repeatedly over the years) contained far greater detail and certain information, such as P&L, that the other desks lacked entirely. The other desks' spreadsheets tracked and provided information about physical trading, but they did not track related positions in such detail, nor did they purport to track P&L and, specifically, TGPNA's fixed price trades' effect on P&L. By contrast, the West Desk's bidweek spreadsheets provided real-time P&L for the West Desk's related positions at the very time when it was executing fixed price trades that affected the value of those related positions.

### E. At Hall's Urging, TGPNA Adopted a Trade Accounting System That Comingled Physical and Financial Positions

Another tool that facilitated the West Desk's scheme was its adoption in 2008 of a trade accounting system that comingled all trades—physical and financial—into single regional books. When Hall joined TGPNA in 2006, the company divided its trade floor into separate physical and financial books.[288] Hall requested TGPNA management "to take away the physical financial book separation . . . and to reorganize the teams into regional teams."[289] He asked for this change because the traders at TGPNA "don't look at things as physical or financial, we look at how the risk is represented."[290] In addition, Hall complained that TGPNA's separation of physical and financial books would not account for offsetting physical and financial positions, such as when a short physical index position was hedged by a financial product, which in Hall's estimation eliminated the index risk.[291] The problem, according to Hall, was that the split between the physical and financial books meant that "one of those deals could show a very big loss and the

[286] Hall Test. Vol. III at 152:8-9 ("The spreadsheet was linked to NYMEX, so yes, at any given time it was creating a P&L.").

[287] Wilson Test. Vol. II at 155:4-9.

[288] Hall Test. Vol. I at 33:23-35:6; Hall Test. Vol. II at 26:8-12, 27:21-25.

[289] Hall Test. Vol. II at 26:22-24.

[290] *Id.* at 27:8-9.

[291] *Id.* at 28:1-15.

other deal could show a very big gain, which is not indicative of the total P&L of the team or the company."[292]

Eventually, TGPNA approved Hall's request and moved to a regional concept where trades were accounted for, irrespective of whether they were physical or financial, based on the type of risk they created. Thus, during the Relevant Period and continuing today, when TGPNA monitors its positions and P&L, it does not differentiate between physical positions and financial positions.[293] In fact, as Tran testified, TGPNA's system, or book, does not give the traders the ability to "differentiate between physical versus financial and differentiate the profit and loss based on that."[294]

Thus, TGPNA's system for monitoring positions and P&L enabled West Desk traders to disguise and claim ignorance for any losses they might experience in bidweek fixed price trades, and to offset any such losses with their gains on related Print Risk positions. This system helped TGPNA, for example, disguise physical losses during the Relevant Period. As described above, the West Desk lost approximately $2.09 million on its physical fixed price trades across the 38 point-months identified in this report.[295]

# IV. Legal Analysis

Enforcement finds that TGPNA's bidweek trading conduct during the Relevant Period violated NGA section 4A and the Commission's Anti-Manipulation Rule.[296] Specifically, during a three-year period from June 2009 through June 2012, TGPNA, Hall, and Tran manipulated natural gas prices by entering into monthly physical fixed price trades with the intent of affecting monthly indexes to benefit their related Print Risk positions. This manipulative conduct was in connection with FERC jurisdictional transactions. In addition, Total and TGPL should be held liable for TGPNA's manipulative conduct based on their exercise of significant control and authority over TGPNA's daily operations.

## A. Elements of a Manipulation Claim

Section 4A of the NGA provides:

> It shall be unlawful for any entity, directly or indirectly, to use or employ, in connection with the purchase or sale of

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[292] *Id.* at 28:15-21.

[293] Nguyen Test. Vol. II at 108:16-23.

[294] *Id.* at 115:21-23; *See also id.* at 145:18-21 (explaining that "the book does not give us the ability to separate physical basis – the basis risk associated with physical or just, you know, the derivative that we transact on").

[295] *See supra* footnote 185.

[296] 15 U.S.C. § 717c-1 (2012); 18 C.F.R. § 1c.1 (2015).

> natural gas or the purchase or sale of transportation services subject to the jurisdiction of the Commission, any manipulative or deceptive device or contrivance . . . in contravention of such rules and regulations as the Commission may prescribe as necessary in the public interest or for the protection of natural gas ratepayers. . . .[297]

Pursuant to this statutory mandate, the Commission promulgated the Anti-Manipulation Rule in Order No. 670. The portion of the Rule applicable to the natural gas markets, 18 C.F.R. § 1c.1 (2015), prohibits an entity from:

> (1) us[ing] or employ[ing] any device, scheme, or artifice to defraud; (2) mak[ing] any untrue statement of a material fact or . . . omit[ting] to state a material fact necessary in order to make the statements made, in the light of the circumstances under which they were made, not misleading; or (3) engag[ing] in any act, practice, or course of business that operates or would operate as a fraud or deceit upon any entity.[298]

Violators of NGA section 4A and the Anti-Manipulation Rule "shall be subject to a civil penalty of not more than $1,000,000 per day per violation for as long as the violation continues."[299]

In Order No. 670, the Commission outlined the elements of the Anti-Manipulation Rule, explaining that it prohibits an entity from:

> (1) us[ing] a fraudulent device, scheme or artifice, or mak[ing] a material misrepresentation or a material omission as to which there is a duty to speak under a Commission-filed tariff, Commission order, or rule or regulation, or engag[ing] in any act, practice, or course of business that operates or would operate as a fraud or deceit upon any entity; (2) with the requisite scienter; (3) in connection with the purchase or sale of natural gas . . . or transportation of natural gas . . . subject to the jurisdiction of the Commission.[300]

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[297] 15 U.S.C. § 717c-1 (2012).

[298] 18 C.F.R. § 1c.1 (2015).

[299] 15 U.S.C. § 717t-1(a) (2012).

[300] *Prohibition of Energy Market Manipulation*, Order No. 670, FERC Stats. & Regs. ¶ 31,202, at P 49, *reh'g denied*, 114 FERC ¶ 61,300 (2006) (Order No. 670).

As discussed below, each of these elements is present here. Consequently, Enforcement concludes that TGPNA, Hall, and Tran violated the Anti-Manipulation Rule by devising and executing a scheme, described above, to trade fixed price gas during bidweek to affect monthly index prices at SoCal, Permian, Waha, and San Juan. The evidence shows that Hall and Tran, acting on behalf of TGPNA, designed these fixed price trades with the intention and purpose of moving monthly index prices in order to benefit related positions whose value was tied to such prices. Moreover, TGPNA, Hall, and Tran's manipulative conduct was subject to the Commission's jurisdiction because their fixed price trades were themselves jurisdictional and affected other jurisdictional transactions.

### B. Application of Anti-Manipulation Rule to the West Desk's Bidweek Trading Scheme

#### 1. Fraudulent Device, Scheme or Artifice

Fraud is a question of fact that must be determined based on "all the circumstances of a case."[301] The Commission defines fraud generally "to include any action, transaction, or conspiracy for the purpose of impairing, obstructing or defeating a well-functioning market."[302]

##### a. Indicia of Fraud

The Commission has stated that indicia of fraud under the Anti-Manipulation Rule include, as relevant here (1) a consistent pattern of trading during the alleged manipulation period; (2) the uneconomic nature of trading; and (3) the failure to provide plausible or credible explanations for the alleged manipulative trading.[303]

Each of these indicia is present here. First, the West Desk's conduct reveals a consistent pattern of position build-up and trading across the Relevant Period. For example, as Wilson and Callender explained (and shown in the trade data), going into bidweek, the desk established large physical and financial positions exposed to published index prices, often including a large physical index position. Then, West Desk traders executed fixed price bidweek trades in the same direction as their Print Risk positions, using a combination of trading tactics, including establishing a sufficiently large market share of monthly fixed price trades during bidweek, timing trades to coincide with sharp and favorable trends in NYMEX prices, and transacting at prices above or below prices transacted by other market participants.

Second, the West Desk's fixed price trading during the Relevant Period did not reflect supply and demand fundamentals, and its traders were generally indifferent to price. Rather than trade fixed price gas during bidweek based on market fundamentals—

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[301] *Id.* P 50.

[302] *Id.*

[303] *Barclays Bank PLC*, 144 FERC ¶ 61,041, at P 32 (2013) (*Barclays*).

i.e., trying to buy low and sell high—West Desk traders bought and sold gas for the purpose of influencing published index prices. The West Desk traders were generally indifferent to price fundamentals. As Wilson testified, after observing a 12-cent swing in NYMEX prices during the May 2012 bidweek period at Permian, Tran directed Wilson to "just start trading it, and . . . not worry about the volume."[304] Wilson also admitted, "I wasn't concerned whether I made or lost money on the fixed price trades. I was concerned with having an impact on the first-of-the-month index."[305] Bondareva also testified about instances of price indifference, for example, when TGPNA made "a buy and sell at the same price relatively close in time. . . . [and] . . . a sale at a lower price than [a] subsequent buy."[306] Moreover, in many months, Enforcement found that TGPNA was willing to suffer losses on its fixed price trades in order to realize greater benefits on its highly exposed Print Risk positions. Indeed, TGPNA lost more than $2 million on its fixed price trades during the 38 point-months identified in this Report.[307]

Finally, West Desk traders failed to offer any credible explanations for their trading conduct during the Relevant Period. Hall and Tran testified about legitimate trading strategies they claim they pursued in at least some instances, but they provided only vague descriptions of those strategies and, moreover, they failed to identify any concrete evidence that they actually pursued legitimate strategies for the point-months that Enforcement identified as manipulative. Moreover, their testimony does not rebut Enforcement's assessment that they routinely pursued a manipulative strategy. Hall raised the possibility that physical trades during bidweek were part of some locational or time spread strategy, but he agreed that contemporaneous documents did not identify any such trades.[308] Moreover, locational spread trading is not inconsistent with a strategy to manipulate index prices, as they both can be pursued simultaneously.[309]

[304] Wilson Test. Vol. II at 320:6-10.

[305] *Id.* at 318:20-23.

[306] Bondareva Test. Vol. II at 96:19-22.

[307] Enforcement calculated these losses by marking the West Desk's fixed price trades during the 38 point-months against the appropriate monthly index prices. The uneconomic nature of the trades is consistent with Bondareva's finding that they appeared "suboptimal," which included "buying or selling at a loss." *Id.* at 39:7-14, 48:1-4.

[308] Hall Test. Vol. II at 74:12-81:13.

[309] Indeed, the CFTC found that in two instances TGPNA intended to manipulate monthly index prices at two locations "to benefit a related financial spread position established by the West Desk at the same hub locations." CFTC Settlement at 5, 7.

Hall also testified that his physical trades tracked NYMEX or Hub movements,[310] but, even if true, this does not contradict Enforcement's findings. Indeed, timing fixed price trades with NYMEX swings was a hallmark of the West Desk's scheme to manipulate index prices. Specifically, and as described above, the West Desk traded heavily and rapidly during periods of substantial NYMEX price swings to try to move prices in its desired direction. For example, during the August 2011 bidweek at SoCal when the West Desk had a long monthly Print Risk position of nearly 14 Bcf, Tran bought fixed price gas during upward NYMEX movements on day 1 of bidweek to try to capitalize on the higher market prices that would benefit the desk's long Print Risk position.[311] Tracking and trading during NYMEX movements is not in and of itself manipulative, but the West Desk's repeated pattern of trading in this manner, along with other behaviors, shows its intent to try to move monthly index prices to benefit its related Print Risk positions.

Similarly, Tran testified that she traded fixed price physical gas during bidweek to express a market view—buying if bullish, selling if bearish—and offered a variety of reasons to explain why she took such viewpoints, such as trying to beat the index, finding arbitrage, taking a view on locational spreads, or hedging NYMEX.[312] As with Hall, however, she could not point to any specific examples of when she pursued these strategies.[313] For example, she testified that there would be no way for her to know, looking at her historical trade data, whether she pursued a locational spread strategy because TGPNA's book did not track that information.[314] Moreover, it is not credible that Tran would have used such large volumes of physical fixed price transactions to express a speculative view on the market. As Wilson testified, it does not make sense for a trading company like TGPNA to speculate so heavily with physical gas products:

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[310] *See* Hall Test. Vol. III at 150:24-159:6.

[311] *See supra* Section III.B.1.

[312] Nguyen Test. Vol. I at 77:19-78:4, 122:11-124:20 (explaining that she trades fixed price monthly gas for a variety of reasons including taking a viewpoint on physical basis, trying to beat the index, finding arbitrage, or taking a viewpoint on spreads); Nguyen Test. Vol. II at 122:23-124:24; Nguyen Test. Vol. III at 276:19-277:10.

[313] Enforcement informed Tran which bidweek periods would be addressed in her testimony. Despite her foreknowledge of Enforcement's line of inquiry, Tran could not offer any concrete reasons for her trading conduct. *See, e.g.*, Nguyen Test. Vol. III at 365:24-367:22 (offering only speculative reasons for why she might have entered into 50 fixed price transactions at Waha during the July 2009 bidweek period and admitting that she did not know for sure why she made the trades).

[314] Nguyen Test. Vol. II at 101:15-23.

> [Its] a messy strategy if what you're doing is you're speculating on price. If you're speculating on price, you have no need to involve physical gas, because you can put that trade on financially, and let it settle out financially, and you never have to touch a molecule of gas. It's cheaper. It's easier. It's more liquid. It just makes a lot more sense.[315]

Also, Tran admitted that she could have speculated during bidweek on other non-physical products that would not have moved the index price, including NYMEX, fixed-for-float swaps, and index swaps.[316]

Tran further claimed, without identifying specific bidweek months and trades, that she sometimes employed a bidweek strategy where she tried to arbitrage positions between two locations—Keystone and Waha Pool—that both report to the Permian index.[317] However, Enforcement did not find evidence that TGPNA engaged in this type of arbitrage at Keystone and Waha Pool. Moreover, even if Tran was correct that she sometimes engaged in an intra-Permian arbitrage that might have been profitable, that fact alone is not inconsistent with Enforcement's finding that at other times she also engaged in a scheme to manipulate index prices during the months at issue. Finally, TGPNA acknowledges that this arbitrage opportunity dissipated in 2010.[318] The West Desk engaged in its manipulative bidweek scheme during eight months at Permian, but only three of these months are prior to or during 2010.[319] Thus, even if this claim was valid as to the manipulative months, it would affect only three of the bidweek periods at issue, leaving Enforcement's determination about the rest of the manipulative months unrebutted.

In addition to its failure to provide plausible, documented reasons for its trading conduct, some of TGPNA's assertions were contradicted by the facts. For instance, TGPNA stated that the West Desk's trades were not speculative because it sold gas to utilities.[320] But this is contradicted by statements from Tran and Hall, among others, that

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[315] Wilson Test. Vol. II at 362:16-23.

[316] Nguyen Test. Vol. II at 202:16-203:17.

[317] *Id.* at 204:8-206:25; Nguyen Test. Vol. III at 390:5-391:20.

[318] TGPNA Response to Enforcement's July 9, 2015, Subpoena Duces Tecum Question No. 1, at 3 (July 24, 2015) ("The market conditions that gave rise to this market dysfunction dissipated around 2010.").

[319] *See* Appendix A.

[320] TGPNA *et al.*, Response to Enforcement's Preliminary Findings Letter at 29 (June 5, 2015) (Response to Preliminary Findings Letter).

their trading was principally speculative in nature,[321] and by the trade data that show that their trades with utilities constituted a very small portion of the West Desk's overall physical gas trades.[322]

#### b. The Commission Has Found Similar Schemes to be Manipulative

The West Desk's bidweek scheme closely resembles other related-position frauds the Commission has deemed manipulative. For example, in its Order Assessing Civil Penalties in *Barclays*, the Commission found that the bank engaged in market manipulation by "trad[ing] fixed price products not in an attempt to profit from the relationship between the market fundamentals of supply and demand, but instead for the fraudulent purpose of moving the Index price at a particular point so that Barclays' financial swap positions at that same trading point would benefit."[323]

### 2. The West Desk Acted With the Requisite Scienter

To establish scienter, the Commission requires "reckless, knowing, or intentional actions taken in conjunction with a fraudulent scheme, material misrepresentation, or material omission."[324] A fraudulent intent can be shown through direct evidence as well

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[321] Nguyen Test. Vol. II at 59:16-60:5; Hall Test. Vol. II at 94:9-12.

[322] Using TGPNA's own trade data, Enforcement's analysis demonstrates that the volume of physical gas traded with utilities Southwest Gas, Arizona Public Service, New Mexico Gas Utilities, and SoCal Gas for delivery between July 2009 and July 2012 was less than 3 percent of traders' volumes. *See* TGPNA 000168145 (TGPNA Trade Data).

[323] *Barclays*, 144 FERC ¶ 61,041 at P 2. *See also Brian Hunter*, 135 FERC ¶ 61,054, at P 6 (2011), *order denying reh'g*, 137 FERC ¶ 61,146 (2011), *rev'd sub nom*, *Hunter v. FERC*, 711 F.3d 155 (D.C. Cir. 2013) (trading in one market "in a manner that was designed to produce artificial settlement prices . . . so as to reap a profit on related financial instruments"); *Final Report on Price Manipulation in W. Mkts*, Docket No. PA02-2-000 (Mar. 26, 2003) (finding that employees of several companies had reported false information to publishers of price indexes in an effort to skew indexes in favor of their positions (short or long) taken in both the physical and financial markets); *Price Discovery in Natural Gas and Elec. Mkts.*, 104 FERC ¶ 61,121, at P 38 (2003) ("actions taken to manipulate, misinform, or mislead index developers and/or market participants will not be permitted"). The Commission has also approved settlements resolving similar types of cross-market schemes. *See, e.g.*, *Constellation Energy Commodities Group, Inc.*, 138 FERC ¶ 61,168 (2012); *Deutsche Bank Energy Trading, LLC*, 142 FERC ¶ 61,056 (2013); *Direct Energy Servs., Inc.*, 148 FERC ¶ 61,114 (2014).

[324] *Maxim Power Corp.*, 151 FERC ¶ 61,094, at P 83 (2015) (*Maxim Power*) (citing Order No. 670, 114 FERC ¶ 61,047 at PP 52-53).

as “legitimate inferences from circumstantial evidence.”[325] “These inferences are based on the common knowledge of the motives and intentions of men in like circumstances.”[326] Furthermore, open market transactions undertaken with manipulative intent are sufficient to establish scienter.[327] In addition, an economic motive can also be evidence of intent to manipulate.[328] As discussed below, there is substantial evidence that TGPNA, Hall, and Tran acted with the requisite scienter.

First, Wilson’s admission that, under Tran’s supervision and tutelage, he intentionally manipulated index prices during the May and June 2012 bidweek periods constitutes evidence of scienter. Wilson’s confession that while employed by TGPNA, and under Tran’s supervision, he intentionally manipulated index prices pursuant to

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[325] *Barclays*, 144 FERC ¶ 61,041 at P 75.

[326] *Id.* (citing *U.S. v. Sullivan*, 406 F.2d 180, 186 (2d Cir. 1969)). *See Maxim Power*, 151 FERC ¶ 61,094 at P 88 n.209; *Desert Palace, Inc. v. Costa*, 539 U.S. 90, 100 (2003) (“Circumstantial evidence is not only sufficient, but may be more certain, satisfying and persuasive than direct evidence.” (citation and internal quotations omitted)); *Herman & MacLean v. Huddleston,* 459 U.S. 375, 390 n.30 (1982) (“proof of scienter … is often a matter of inference from circumstantial evidence); *United States v. Philip Morris USA Inc.,* 566 F.3d 1095, 1118 (D.C. Cir. 2009) (“A person’s state of mind is rarely susceptible of proof by direct evidence, so specific intent to defraud may be, and most often is, inferred from the totality of the circumstances, including indirect and circumstantial evidence.”); *United States v. Salameh*, 152 F.3d 88, 143 (2d Cir. 1998) (“[A]s a general rule most evidence of intent is circumstantial . . . .”); *United States v. O’Brien,* 14 F.3d 703, 706 (1st Cir. 1994) (“Guilty knowledge, like specific intent . . . seldom can be established by direct evidence. This principle has particular pertinence in respect to fraud crimes which, by their very nature, often yield little in the way of direct proof.” (citation omitted)).

[327] *Barclays*, 144 FERC ¶ 61,041 at PP 50-58 (citing *Brian Hunter*, 135 FERC ¶ 61,054 at P 51 n.78); *see also In re Amaranth Nat. Gas Commodities Litig*, 587 F. Supp. 2d 513, 534 (S.D.N.Y. 2008) (“[A] legitimate transaction combined with an improper motive is commodities manipulation.”); *SEC v. Masri*, 523 F. Supp. 2d 361, 368 (S.D.N.Y. 2007) (otherwise legitimate trades with real customers can constitute unlawful manipulation solely due to the actor’s fraudulent purpose).

[328] *Markowski v. SEC*, 274 F.3d 525, 528 (D.C. Cir. 2001); *see also Crane Co. v. Westinghouse Air Brake Co.*, 419 F.2d 787, 795 (2d Cir. 1969) (manipulative purpose is prima facie established where a person who has a “substantial, direct pecuniary interest in the success of a proposed offering takes active steps to effect a rise in the market in the security”) (quoting 3 Louis Loss, *Securities Regulation*, 1552-53 (2d ed. 1961) (internal citations omitted)) *aff’d in part and rev’d in part on other grounds sub nom. Crane Co. v. Am. Standard, Inc.*, 603 F.2d 244 (2d Cir. 1979).

Tran's encouragement constitutes evidence of the scienter of TGPNA, Wilson's employer at the time. Wilson's admission and allegations are credible because they are against his interest, and are substantially corroborated by the trade data, Callender's independent testimony, and other evidence.

Second, there is extensive other evidence of the West Desk's scienter, including its highly leveraged Print Risk positions, market share of fixed price bidweek trading in the same direction as its Print Risk positions, and bidweek trading patterns that consistently favored its Print Risk positions. During the Relevant Period, Hall and Tran routinely established large Print Risk positions heading into bidweek, knowing that the West Desk stood to benefit from fixed price trading during bidweek that was in the same direction as such positions. Hall and Tran then traded sufficiently large volumes during bidweek at price levels and in ways that benefited the Print Risk positions.[329] Furthermore, Hall and Tran were aware of the effect of their bidweek trades on the published index price and TGPNA's P&L because they tracked it in real time in their customized bidweek spreadsheets. TGPNA's scienter is further established through evidence that TGPNA's Chief Compliance Officer, Middle Office, and Risk Office raised concerns with the West Desk's bidweek trading during the Relevant Period, as described above in Section III.C.

### 3. The West Desk's Manipulative Conduct Is Subject to the Commission's Jurisdiction

Section 1(b) of the NGA grants the Commission jurisdiction over the transportation and sale for resale of natural gas in interstate commerce and any natural gas company engaged in such transportation or sale.[330] In addition, the NGA provides the Commission with jurisdiction over natural gas market manipulation where the fraud is "in connection with" a "purchase or sale" subject to the Commission's jurisdiction.[331] As explained in Order No. 670, "[t]he Commission views the 'in connection with' element . . . as encompassing situations in which there is a nexus between the fraudulent conduct of an entity and a jurisdictional transaction."[332] The Commission explained further, "in

[329] Hall and Tran also had personal motivation to profit on the West Desk's large Print Risk positions because they received annual bonuses based on their performance. Tran received annual bonuses between 2009 and 2013 ranging from $225,000 to $405,000. *See* TGPNA F 02117706 (Nguyen Personnel File). Between 2008 and 2011, Hall received annual bonuses at TGPNA ranging from $400,000 to $575,000. *See* TGPNA F 02117240 (Hall Personnel File).

[330] 15 U.S.C. § 717(b) (2012).

[331] 15 U.S.C. § 717c-1 (2012).

[332] Order No. 670, FERC Stats. & Regs. ¶ 31,202 at P 22.

committing fraud, the entity must have intended to affect, or have acted recklessly to affect, a jurisdictional transaction." [333]

As detailed below, the Commission has jurisdiction over TGPNA's trading scheme in at least two respects. First, TGPNA's own monthly physical fixed price and index sales of natural gas during the Relevant Period were themselves sales for resale of natural gas in interstate commerce and were not first sales.[334] Second, TGPNA's monthly physical fixed price trades during the Relevant Period manipulated monthly indexes at the four Relevant Locations, and those indexes were commonly used to set the prices of other jurisdictional transactions, including interstate pipelines' cash-out transactions used to bill shippers for pipeline imbalances. TGPNA's fixed price transactions thereby affected, or were "in connection with," other third-party jurisdictional transactions.

#### a. TGPNA's Fixed Price and Index Transactions Were Directly Jurisdictional

Through discovery from TGPNA counterparties, Enforcement has identified TGPNA sales of monthly physical fixed price and index gas made in furtherance of its scheme during the Relevant Period that were (1) in interstate commerce; (2) sales for resale; and (3) not first sales.[335] As one example, on October 27, 2011 (relevant to the November 2011 SoCal point-month), TGPNA made two monthly physical fixed price sales of natural gas to EDF Trading North America, LLC (EDF) for a total quantity of 20,000 MMBtu/day for delivery at SoCal Ehrenberg.[336] EDF indicated that the delivery location for these transactions was SoCal-Ehrenberg, which is an interconnection point on the El Paso Natural Gas interstate pipeline.[337] Thus, the transactions were in interstate commerce. EDF also indicated that it took title to the physical gas and purchased it for resale purposes, establishing the resale element.[338] Finally, TGPNA's sales to EDF, as well as all of its other sales during the Relevant Period, were not first sales. First sales

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[333] *Id.*

[334] 15 U.S.C. § 717(b) (2012) ("The provisions of this chapter shall apply to . . . the sale in interstate commerce of natural gas for resale . . . ."); *id.* § 3431 (a)(1)(A) (2012) ("For purposes of section 1(b) of the Natural Gas Act . . . the jurisdiction of the Commission under such Act shall not apply to any natural gas solely by reason of any first sale of such natural gas.").

[335] Enforcement sought and received transaction data from certain TGPNA counterparties for each of the 38 point-months identified in this Report.

[336] *See* TGPNA 000168145 (TGPNA Trade Data).

[337] *See* Response of EDF Trading North America, LLC to Enforcement's Dec. 17, 2015, Subpoena at EDFT_TOTAL_00049, EDFT_TOTAL_00057 (Jan. 8, 2016).

[338] *See id.* at 5 (responses to 2(a) and 2(b)).

are outside the Commission's NGA jurisdiction.[339] However, sales by an interstate pipeline, intrastate pipeline, Local Distribution Company (LDC), or affiliate thereof, do not qualify as first sales except to the extent that the volumes sold are attributable to the company's own production.[340] TGPNA's sales were not first sales because TGPNA is an affiliate of an intrastate natural gas pipeline, Total Gas Pipeline USA, Inc. This affiliate owns an intrastate pipeline, regulated by the Railroad Commission of Texas, which is used to transport natural gas to another TGPNA affiliate, Total Petrochemicals USA, Inc.[341] Thus, all of the elements establishing jurisdiction of the relevant transactions are present.

#### b. TGPNA's Fixed Price Transactions Were "In Connection With" Third Party Jurisdictional Transactions

Enforcement has also identified several forms of third party jurisdictional transactions that were priced off of the manipulated Relevant Indexes and, as such, were affected by, and were "in connection with," TGPNA's fixed price trades at issue in this matter. For example, Questar Southern Trails Pipeline Company's ("Questar") FERC Gas Tariff, First Revised Volume No. 1, incorporated the monthly index price at San Juan during the Relevant Period to cash out imbalances on its pipeline.[342] In addition, Kern River Gas Transmission Company used the monthly SoCal (NGI) index price for several months, including January 2011, November 2011, December 2011, and January

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[339] *See* 15 U.S.C. § 3431 (a)(1)(A) (2012).

[340] *See, e.g.*, *Distrigas of Mass. LLC*, 124 FERC ¶ 61,039, at P 16 n.24 (2008) (noting the "exclu[sion] from the first sale definition, thereby leaving subject to NGA jurisdiction, the sale of any volume of natural gas by any interstate pipeline, intrastate pipeline, or local distribution company, or any affiliate thereof, unless such sale is attributable to volumes of natural gas produced by such interstate pipeline, intrastate pipeline, or local distribution company, or any affiliate thereof" (internal quotations omitted)); *Amendments to Blanket Sales Certificates*, Order No. 644, FERC Stats. & Regs. ¶ 31,153, at P 14 (2003), *reh'g denied*, 107 FERC ¶ 61,174 (2004) ("Under the NGPA, first sales of natural gas are defined as any sale to an interstate or intrastate pipeline, LDC or retail customer, or any sale in the chain of transactions *prior* to a sale to an interstate or intrastate pipeline or LDC or retail customer.").

[341] *See* Henderson Test. at 49:18-25; Total Gas Pipeline USA, Inc.'s Transmission Annual Report, Railroad Commission of Texas (Apr. 9, 2013).

[342] *See* Response of Questar Southern Trails Pipeline Company to Enforcement's October 14, 2015, Data Request (Nov. 2, 2015) (Questar executed cashout imbalances using the March 2011 and December 2011 manipulated San Juan index price).

2012, to calculate replacement shippers' demand rates in capacity release transactions, subject to the Commission's jurisdiction.[343]

Therefore, in addition to establishing that TGPNA's fixed price and index transactions were themselves jurisdictional, TGPNA's conduct was also "in connection with" third party jurisdictional transactions.

### C. Liability of Total and TGPL for TGPNA's Conduct

As described below, the law and facts support holding Total and TGPL liable for TGPNA's, Hall's and Tran's conduct, which is necessary to prevent them from allowing their undercapitalized "Houstonian trading office" to manipulate United States natural gas markets for years and then avoid the consequences due to insufficient funds. TGPNA is merely a trading office with limited assets (and no natural gas assets) of its own. Moreover, Jean-Pierre Mateille, TGPL's Vice President of Trading and TGPNA's Chairman, testified about TGPNA's recent financial "problems," noting that its budget for 2014 was "slightly above the equilibrium," and "less than 10" million dollars in profits.[344] Also, as described above, Total has provided credit guarantees to TGPNA counterparties for purposes of establishing credit relationships because of TGPNA's lack of sufficient credit.[345] TGPNA, Hall, and Tran should not be allowed to escape accountability due to insufficient funds, and the law and facts support holding Total and TGPL liable to avoid this result.

#### 1. Total, TGPL, and TGPNA Acted as a Single Entity

Total and TGPL should be held liable for TGPNA's conduct because they acted as a single entity with TGPNA. For years, the Commission has applied its single entity doctrine to "disregard the corporate form in the interest of public convenience, fairness, or equity" when necessary to fulfill its statutory obligations.[346] This doctrine is "flexible

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[343] *See* Response of Kern River Gas Transmission Company to Enforcement's October 15, 2015, Data Request (Oct. 23, 2015).

[344] Mateille Test. at 87:1-89:25.

[345] *See, e.g.*, TGPNA F 02326927-931 (Meeting minutes from December 14, 2012 TGPNA board meeting at which Total agreed to provide an unlimited guarantee of credit to TGPNA for LNG contract with a third party because "[t]he creditworthiness of TGPNA is not sufficient to satisfy both [third party's] project financing requirements and [third party's] own credit requirements").

[346] *San Diego Gas & Elec. Co. v. Sellers of Mkt. Energy & Ancillary Svcs.*, 127 FERC ¶ 61,269, at P 221 (2009); *see also Kansas Pipeline Co., v. Kansas Pipeline Operating Co.*, 81 FERC ¶ 61,005, at 61,010 (1997); *Transcon. Gas Pipe Line Corp.*, 58 FERC ¶ 61,023, at 61,045 (1992), *aff'd, Transcon. Gas Pipe Line Corp. v. FERC*, 998 F.2d 1313, 1320 (5th Cir. 1993); *Town of Highlands, N.C. v. Nantahala Power & Light Co.*, 37 FERC ¶ 61,149, at 61,356 (1986).

and practical in nature," and the relevant "inquiry is simply a question of whether the statutory purposes would be frustrated by the corporate form."[347] As the Commission has explained, the doctrine gives it the "broad authority . . . to look beyond a subsidiary to its owner to achieve the agency's statutory mandate and to assure that statutory purposes are not frustrated."[348] These principles apply regardless of the intent behind a particular corporate structure.[349]

The Commission's single entity doctrine is a variation of a theory that has deep roots in regulatory law. Aside and apart from traditional agency law and common law veil-piercing doctrines, "[i]t long has been established that the fiction of corporate separateness of state-chartered corporations will not be permitted to frustrate the policies of a federal statute."[350] There is a robust history of federal agencies achieving that end by disregarding the corporate form under a different and less burdensome standard than that called for under ordinary agency and veil-piercing principles.[351]

When deciding whether to employ a single entity approach, regulatory agencies and courts generally follow a holistic "totality of the circumstances" analysis, with the

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[347] *Town of Highlands*, 37 FERC ¶ 61,149 at 61,356.

[348] *Id. See also Transcon. Gas Pipe Line Corp.*, 58 FERC ¶ 61,023 at 61,045 (applying single entity doctrine to reach parent corporation that used two subsidiaries to make gas sales at rates that the parent was not permitted to offer).

[349] *San Diego Gas & Elec. Co.*, 127 FERC ¶ 61,269 at P 221.

[350] *Safety Light Corp.*, 41 N.R.C. 412, 457 (1995) (citing *Anderson v. Abbott*, 321 U.S. 349, 365 (1944)).

[351] *See, e.g.*, *Anderson*, 321 U.S. at 365 (approving OCC's extension of liability to shareholders of bank holding company because to allow corporate form to insulate against liability would frustrate federal policy); *Sebastopol Meat Co. v. Sec'y of Agric.*, 440 F.2d 983, 985 (9th Cir. 1971) ("We do not think that state law limitations on the alter ego theory or doctrine are necessarily controlling in determining the permitted scope of remedial orders under federal regulatory statutes" in proceeding under Packers and Stockyards Act); *Sasso v. M. Fine Lumber Co.*, 144 F.R.D. 185, 190 (E.D.N.Y. 1992) (denying individual president's motion to vacate judgment holding him liable for collection of pension contributions under ERISA, noting that "even if a traditional [veil-piercing] standard cannot be met in his particular case, Fine could still be held personally liable…" ); *Improving Public Safety Comm. In the 800 MHz. Band*, 25 F.C.C. Rcd. 13,874 at 13,887-89 (2010) (collecting cases, noting that "this inquiry is distinct from the standards for 'piercing the corporate veil' or finding an 'alter ego' under common law"); *Macmillan, Inc.*, 96 F.T.C. 208, at *77 (1980) ("Even latent power to control the policy of its subsidiary is sufficient to hold the parent company vicariously responsible for the acts of its subsidiary.").

overarching consideration being whether the corporate form, intentionally or not, functions to frustrate federal statutory or regulatory goals.[352] While there is no precise test for when a single entity approach should be employed, the Commission and courts have frequently focused on such factors as: the interconnectedness of business and/or ownership relationships;[353] whether the entities operated as a "single commercial enterprise;"[354] the ability (exercised or not) of one entity to exert control over the other;[355] whether the entities were affiliated in ownership and management;[356] whether the entities functioned as independent profit seeking corporations from each other;[357] and whether there were legal instruments governing their interrelations.[358]

Applying this "totality of the circumstances" standard, Total, TGPL, and TGPNA should be treated as a single entity for purposes of holding Total and TGPL accountable for TGPNA's conduct. TGPNA was not run as a separate profit seeking corporation from TGPL and Total, but, rather, as a component of Total's Gas & Power Division.[359] In this role, Total and TGPL were closely involved in, and exerted significant control over, TGPNA's daily operations. For example, as described *supra* in Section II.A.1: (1) Total established risk limits for TGPNA's traders and TGPNA was required to seek TGPL's authority to breach these limits; (2) TGPNA frequently relied on parent company guarantees in establishing credit relationships in its trading business; (3) officers within TGPNA were required to report directly to TGPL and Total superiors rather than, or in addition to, TGPNA's own management; (4) TGPL retained extraordinary administrative control over the daily operation of critical business components such as IT systems and TGPNA's trading book; (5) officers of Total and TGPL participated in biweekly steering committee meetings with TGPNA personnel where they discussed TGPNA trading issues, including positions and market views; and (6) officers at TGPL participated in setting the trading strategies and budget of TGPNA, and approved certain staffing

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[352] *See, e.g. Anderson*, 321 U.S. at 365 (to allow corporate form to insulate against liability would frustrate federal policy); *Kansas Pipeline Co.,* 81 FERC ¶ 61,005 at ¶ 61,011 (violations of regulations and orders constitute frustration of statutory policy); *Town of Highlands*, 37 FERC ¶ 61,149 at 61,355-56.

[353] *Town of Highlands*, 37 FERC ¶ 61,149 at 61,359.

[354] *Schenley Distillers Corp. v. United States*, 326 U.S. 432, 436-37 (1946).

[355] *Beneficial Corp.*, 86 F.T.C. 119, at *33 (1975).

[356] *Transcon. Gas Pipe Line Corp.*, 998 F.2d at 1320-21.

[357] *Town of Highlands*, 37 FERC ¶ 61,149 at 61,359.

[358] *Transcon. Gas Pipe Line Corp.*, 998 F.2d at 1318.

[359] As TGPNA acknowledges in its recent Complaint for Declaratory Relief in the Western District of Texas, "TGPNA operates as the North American trading arm of TOTAL's Global Gas Division." Complaint for Declaratory Relief at 7.

decisions as well as the structure of TGPNA's trade floor. The interconnectedness of Total, TGPL, and TGPNA makes clear that these entities did not act as independent corporations, but rather as a single profit-seeking enterprise. The fact that TGPNA was under-financed relative to the market harm its fraud caused is another factor favoring treating all three as a single entity.

Under these facts, adhering strictly to the corporate form and ignoring TGPNA's connection with and reliance on Total and TGPL would frustrate the Commission's statutory mandate to effectively police and sanction manipulative conduct because Total has the power to turn a penalty assessment against TGPNA into a nullity. Indeed, not treating these companies as a single entity could allow Total to simply pull funds out of (or close) TGPNA's operations if faced with a penalty for violating United States law (whether market manipulation or otherwise). Applying the single entity doctrine would prevent this large multinational corporation from enabling its smaller "Houstonian trading office" to manipulate natural gas markets for years—by deploying their substantial resources and reputation to underwrite TGPNA—and then avoiding the consequences by shutting it down and moving its assets back to Paris.[360]

### 2. Veil Piercing

In addition to its single entity doctrine, the Commission has applied the "piercing the corporate veil," or "alter ego" doctrine, allowing it to disregard the corporate form "when public convenience, fairness, and equity require, or when refusal to disregard the corporate form works an injustice or promoted fraud."[361] In *William Valentine and Sons*, the Commission explained that this veil piercing doctrine may be used "to impose liability on a corporation . . . for the obligations of another corporation," such as where a "parent-subsidiary relationship exists."[362] The Commission also explained that the veil piercing doctrine may be applied where "two corporations are affiliated, or sister, corporations, owned by the same 'parent.'"[363]

The Commission applies a two-pronged inquiry, adopted from federal courts, "to determine when piercing the corporate veil is appropriate: (1) is there such unity of interest and ownership that the separate personalities of the corporation and the controlling individual no longer exist?; and (2) will adherence to the corporate fiction or

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[360] Treating TGPNA as a single entity with Total and TGPL supports the Commission's exercise of personal jurisdiction over Total and TGPL, as described *infra* in section IV.E.8.

[361] *William Valentine and Sons, Inc.*, 46 FERC ¶ 61,252, at 61,748 (1989) (citation omitted).

[362] *Id.* at 61,749.

[363] *Id.* (citation omitted).

the failure to disregard the corporate form result in fraud or injustice."[364] Determining whether to pierce the corporate veil under this standard is a "fact-intensive inquiry."[365]

As in *William Valentine and Sons*, both elements of the inquiry are satisfied here. As to the first element, there is substantial evidence, discussed above, that there was a unity of interest between Total, TGPL, and TGPNA, and lack of respect given TGPNA by Total and TGPL. Total and TGPL viewed TGPNA for what it was—the "Houstonian trading office" of Total's Gas & Power Division.[366] And Total and TGPL, jointly and separately, treated it as such, managing all aspects of TGPNA's operations, ranging from trading limits to personnel issues and IT infrastructure. Similar to the facts in *William Valentine and Sons*, TGPNA "relied on" Total and TGPL "for the day-to-day functioning of its business."[367] For example, TGPNA's trading authority and limits flowed directly from Total headquarters in Paris, while TGPL set TGPNA's risk limits by allocating to it some portion of the global limits set by Total. Officers at TGPNA reported directly to Total and TGPL, and officers at TGPL participated in regular discussions about TGPNA's trading strategies and budget and approved certain staffing decisions. TGPL also controlled many aspects of TGPNA's daily operations, including its IT infrastructure and trading book. Also similar to the situation in *William Valentine and Sons*, TGPNA "relied on [Total and TGPL] for capital."[368] In addition, as discussed above, officers and directors of TGPL and Total received notice of, and participated in meetings about, Craven's concerns about compliance.[369]

As to the second factor, respecting the corporate form here would frustrate the Commission's statutory mandate to effectively sanction fraud because the magnitude of TGPNA's fraud could not have been achieved but for Total's and TGPL's resources and reputation. Moreover, as discussed above, holding Total and TGPL liable prevents them from enabling TGPNA to manipulate gas markets for years and then avoiding the

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[364] *Id.* (citations omitted).

[365] *Id.* at 61,751; *see also United States v. Jon-T Chemicals, Inc.*, 768 F.2d 686, 694 (5th Cir. 1985) (applying a "totality of the circumstances" test in affirming trial court's decision to pierce the corporate veil and hold parent company liable for the fraudulent misrepresentations of its subsidiary).

[366] TGPNA F 02141979; *see also* Complaint for Declaratory Relief at 7 (describing TGPNA "as the North American trading arm of TOTAL's Global Gas Division").

[367] *William Valentine and Sons*, 46 FERC ¶ 61,252 at 61,752.

[368] *Id.* at 61,753. *See also Jon-T Chemicals*, 768 F.2d at 695 (upholding decision to pierce the corporate veil based in part on finding that parent company "made substantial loans to" its subsidiary).

[369] *See supra*, pp. 53-55; Mateille Test. Ex. 8 (TGPNA F 02094992-93).

consequences by shutting down TGPNA, or claiming that it does not have sufficient funds to pay a penalty. In this regard, courts have been particularly willing to disregard the corporate form when necessary to effectively carry out a regulatory or statutory mandate.[370] Therefore, given the unity of interest between TGPNA, Total, and TGPL, as well as the impact on the Commission's mandate to effectively sanction manipulation, it is appropriate to pierce the corporate veil and hold Total and TGPL liable for TGPNA's conduct.[371]

### D. Individual Liability

#### 1. Therese Tran

Enforcement recommends that the Commission also hold Tran individually liable under the Anti-Manipulation Rule. Tran is the individual most culpable for devising and executing the West Desk's manipulative trading scheme. As a trader under Hall's supervision from 2008 through mid-2011, she learned not only how to trade bidweek, but more importantly, how to manipulate index prices to benefit the West Desk's related positions. After Tran took over as West Desk supervisor (mid-2011 through 2012), the West Desk's manipulative trading increased and she encouraged her subordinates including Wilson to trade physical gas during bidweek in ways that effectuated the scheme. Tran executed the vast majority of relevant trades analyzed and characterized as "suboptimal" by Bondareva.

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[370] *See Capital Tel. Co. v. FCC*, 498 F.2d 734, 738 (D.C. Cir. 1974) (holding that the "doctrinal bar of the corporate veil. . . . lose[s] much of [its] sacrosanctity when urged in the context of regulated industries," and that "courts have consistently recognized that a corporate entity may be disregarded in the interests of public convenience, fairness and equity").

[371] Total can also be held liable for TGPNA's conduct under traditional principles of agency law embodied in the Restatement (Third) of Agency, which defines the basic agency relationship as one in which a principal manifests assent that an agent will act on the principal's behalf and subject to the principal's control, and the agent manifests assent or otherwise consents to act on behalf of the principal. Restatement (Third) of Agency § 1.01, Comment C. Applying with full force in the regulatory sphere, agency law principles hold that when an agent's conduct violates regulatory requirements, is within the scope of the agency relationship, and is in furtherance of the principal's interests, the principal can be held responsible for those violations. *See, e.g.*, *United States v. Habersham Properties, Inc.*, 319 F. Supp. 2d 1366 (N.D. Ga. 2003) (denying summary judgment to property management company and its corporate owner for Federal Housing Act violations carried out by property management employee based on "traditional theories of agency law"); *EEOC v. Wal-Mart Stores*, Inc., 11 F. Supp. 2d 1313 (D.N.M. 1998) (company liable for violations of the Americans with Disabilities Act committed by store employees).

### 2. Aaron Hall

Enforcement further recommends that the Commission hold Hall, the West Desk supervisor from 2008 through mid-2011, individually liable under the Anti-Manipulation Rule based on the level of his culpability. The trading manipulation scheme was devised and first executed by Hall and Tran. Moreover, as supervisor of the West Desk, he was always aware of the desk's trading activities.[372] Therefore, Hall should be held accountable as a primary actor as well as a supervisor of the manipulative scheme.

## E. Respondents' Defenses Are Not Persuasive

In response to Enforcement's Preliminary Findings Letter and section 1b.19 notice, Respondents raised several factual and legal defenses, which Enforcement addresses below. Respondents' factual defenses are either not supported by contemporaneous evidence or do not, even if taken as true, rebut Enforcement's claim of market manipulation. Respondents' legal arguments likewise fail because they are not supported by the applicable law on the Anti-Manipulation Rule.

### 1. Callender and Wilson Are Credible Witnesses

Respondents argue that Callender and Wilson are not credible witnesses, claiming they did not understand TGPNA's trading and were disgruntled former employees. Enforcement rejects this contention. In concluding that Callender and Wilson are credible witnesses, Enforcement is mindful of the fact that they have a financial interest in the outcome of any CFTC or FERC proceeding related to alleged manipulation by the West Desk. However, in assessing Wilson's and Callender's credibility, Enforcement weighed this factor against all the circumstances surrounding their testimony, and we specifically find them to be credible because, as discussed below, (1) their independent testimonies are corroborated by each other and the trade data; (2) they sacrificed their careers in the natural gas industry by blowing the whistle on their former employer; (3) they provided detailed explanations of the scheme that are consistent with the trade data; and (4) Wilson implicated himself in the trading scheme. Below, Enforcement addresses each witness's credibility.

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[372] *See, e.g.*, Hall Test. Vol. I at 97:2-3 ("I would have [an] extremely good grasp of what the position of the West team would be at all times."); Hall Test. Vol. II at 169:1-4 ("We would everyday, quite likely, talk about our views on the market and managing our positions as we got closer to bid week, just continuing to update what our basis and index positions are going into bid week."); Hall Test. Vol. III at 148:7-10 ("We would agree upon which positions we chose to take, both before and going into and during and after bid week. We would continually discuss our views, the positions we had, the positions we wanted and modify them as such.").

### a. Stephen Callender

Respondents assert that Callender is not a credible witness for a variety of reasons, none of which holds up under scrutiny. Respondents argue that Callender's testimony is based only on "vague suspicion" that West Desk positions were created for an improper purpose.[373] In addition, they note that a former TGPNA trader, the source of Callender's initial awareness of the allegedly manipulative strategy, later denied to Enforcement that he had any knowledge of TGPNA's scheme.[374] They also argue that Callender's allegation of internal discussions about manipulative intent is uncorroborated, and that his testimony is "suspect" because TGPNA terminated Callender due to poor trading performance.[375] They also argue that Callender's testimony is "questionable" because he was unhappy with TGPNA for objecting to his application for unemployment benefits.[376]

As discussed above, Callender is a credible witness based on multiple grounds, including the detailed substance of his allegations and the fact that his independent account to the CFTC in October 2011 is nearly identical to that of Wilson's subsequent experience and testimony in terms of how the scheme operated. In addition, Callender's CFTC whistleblower complaint pre-dates Wilson's bidweek trading by several months, and therefore derives from an independent source of information.

### b. Matthew Wilson

As with Callender, Respondents' contention that Wilson is not a credible witness does not hold up under scrutiny. Respondents argue that Wilson is "an inexperienced trader who did not understand bidweek trading," failed to adequately manage his risk during each bidweek, damaged TGPNA's relationships with its customers, and was demoted from a cash trader to an analyst.[377] They also attack Wilson's credibility by arguing that he was disgruntled over his disagreement with Tran and subsequent termination.[378]

As discussed above, Enforcement concludes that Wilson is a credible witness. He provided a statement against his own interest and sacrificed his career by admitting that he knowingly engaged in unlawful manipulation under Tran's supervision. Moreover, his testimony describing the nature of the West Desk's manipulation is corroborated by the trade data and Callender's separate and independent testimony. Respondents' characterization of Wilson as "an inexperienced trader who did not understand bidweek

[373] Response to Preliminary Findings Letter at 47.

[374] *Id.* at 45-46.

[375] *Id.* at 45-47.

[376] *Id.* at 47.

[377] *Id.* at 48-51.

[378] *Id.* at 48-51.

trading" is contradicted by contemporaneous evidence. In January 2012, Wilson received a performance rating of 5, the highest possible rating that stands for "exceptional" for his work in 2011.[379] He also received a merit salary increase and bonus each year he worked at TGPNA, including a bonus of $105,000 in 2012.[380] Respondents' characterization of Wilson is also contradicted by Hall's statement that by 2011 Wilson had been "getting into a better understanding of how things were affecting each other in the marketplace, and I thought he was making good progress."[381] Moreover, Respondents' arguments regarding Wilson's trading skills, even if true, are not relevant to Wilson's own conduct. Even an "inexperienced trader" who trades physical gas with the specific intent to manipulate markets is in violation of the Commission's Anti-Manipulation Rule.

Respondents also assert, without providing any specific examples, that Wilson "markedly changed his testimony between his first and second OE deposition."[382] Respondents have no basis for this assertion because it is not true. A review of Wilson's testimony reveals its consistency. Throughout his testimony, he provided the same general description of the West Desk's scheme to trade fixed price gas during bidweek to benefit its financial position.[383] Also, Wilson testified consistently about the two main factors—the West Desk's initial bidweek positions and its timing of trades around NYMEX price movements—that led to his discovery of the scheme.[384] Wilson testified candidly throughout his testimony about his involvement in the scheme. While he admitted engaging in the scheme during his second day of testimony,[385] he also implicated himself on multiple occasions during the first day, including his statement that "I just felt like what I discovered during bid week was that *we were* – in the short period of time that *I traded it*, I could notice that *we were* putting physical positions on that would – trading those physical positions would benefit a financial position."[386] Finally,

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[379] TGPNA 001984367; TGPNA 001984359.

[380] TGPNA 001984367; TGPNA 001984359.

[381] Hall Test. Vol. I at 82:7-12.

[382] Total Gas & Power North America, Inc. *et al*. Response to 18 C.F.R. § 1b.19 Notice, at 3 (Dec. 29, 2015) (TGPNA 1b.19 Response). *See also* Response to Preliminary Findings Letter at 6, n.336.

[383] *Compare* Wilson Test. Vol. I at 58:13-21, 64:36 *with* Wilson Test. Vol. II at 218:20-219:5.

[384] *Compare* Wilson Test. Vol. I at 59:1-15, 62:19-22, 155:13-25, 136:10-137:17 *with* Wilson Test. Vol. II at 219:21-220:13, 219:9-20.

[385] Wilson Test. Vol. II at 230:22-231:19, 308:16-19.

[386] Wilson Test. Vol. I at 150:24-151:3 (emphasis added). *See also id.* at 56:21-57:23 (admitting to trading bidweek for West Desk between January 2012 and May 2012 during which he alleged desk engaged in manipulation); 62:15-19 ("as I learned more

throughout his testimony, Wilson remained consistent in not overstating or exaggerating his allegations against TGPNA and Tran.[387]

Respondents also try to attack Wilson's credibility by stating that he reported his allegations only after his work performance was questioned and shortly before TGPNA terminated him for cause.[388] Wilson reported the manipulative scheme to Henderson when he did because he felt that he had exhausted all other efforts to remove himself from the West Desk's trading activities.[389] Notably, Wilson reported the West Desk's conduct to the Commission's Enforcement Hotline on June 3, 2012, almost a month before he was notified of his termination and five days before TGPNA management even made the internal decision to terminate him.[390] Moreover, while TGPNA takes the position that it fired Wilson for insubordination to Tran, this is contradicted by the independent decision of the Texas Workforce Commission (TWC), which awarded Wilson unemployment benefits after finding that he was fired "for a reason that was not misconduct with the work."[391]

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about the positions that were already established and seeing the impacts of what *I was doing*, I was growing much more uncomfortable" (emphasis added)).

[387] *Compare* Wilson Test. Vol. I at 65:3-5 ("There was never any direction to do this, do that, or you're gone. It was more of an encouragement.") *with* Wilson Test. Vol. II at 298:21-22 (describing that Tran provided "encouragement and indirect ways of coaching . . . to do certain things").

[388] TGPNA 1b.19 Response at 3.

[389] Wilson Test. Vol. I at 158:3-163:9 (describing unsuccessful efforts to trade on Mid-Continent Desk and his decision to report his allegations after feeling like he had "nowhere left to go").

[390] *See* TGPNA F 01776323 (June 27, 2012, email from Bruce Henderson to Jean-Pierre Mateille and Tom Earl, describing June 26, 2012, notification of termination to Wilson); *See* TGPNA F 02282218 (June 11, 2012 email from Tom Earl to Jean-Pierre Mateille and Philippe Chauvain, revealing June 8, 2012, internal decision to terminate Wilson).

[391] TGPNA F 01772458 (Aug. 31, 2012, TGPNA Internal email Communication). Henderson appeared particularly perturbed by the TWC's decision and, after receiving it, told TGPNA's general counsel and HR personnel to consider adding "another letter to our package of termination documents, clearly stating the specific grounds for termination." *Id.*

### 2. Respondents' Claim That the West Desk Relied on Market Fundamentals Does Not Undermine Enforcement's Finding of Manipulation

Respondents argue that the West Desk's trading was based on market fundamentals and was therefore not manipulative.[392] But the fact that West Desk traders considered market fundamentals does not undermine Enforcement's findings because they typically executed their scheme in the same direction as—and in ways that exacerbated—prevailing market trends. That is, the West Desk analyzed market fundamentals to determine whether it believed that the market would be "bullish" or "bearish," and then established its initial physical and financial positions (i.e., its Print Risk) accordingly. Then, during bidweek, it was opportunistic: when market trends benefited its Print Risk positions, it traded in a manner to exacerbate those trends; but when the market trends turned against its Print Risk position, it either traded in a manner to neutralize those trends,[393] or tried to exit those Print Risk positions to cut its losses. In short, the West Desk employed fundamentals-based analyses to assist it in manipulating market prices.

Respondents further contend that the West Desk traders acted in various non-manipulative ways to capture value during bidweek.[394] However, Respondents could not point to specific examples of such trading. Moreover, while they may have engaged in non-manipulative trading some of the time, this does not rebut Enforcement's conclusion that it *also* engaged in manipulative conduct during this same period.

### 3. The West Desk's Bidweek Spreadsheets Aided Its Manipulative Conduct

Respondents contend that the bidweek spreadsheets are not proof that the West Desk manipulated the market because there are legitimate purposes for them.[395] While there may be legitimate purposes for the West Desk's bidweek spreadsheets, the evidence is that they were also used as a tool to monitor and implement the manipulative trading. The West Desk's development of tailored versions of such spreadsheets, far more detailed than any other desk at TGPNA, demonstrates that its traders knew how to trade in a manner to benefit their overall bottom line even if it meant offsetting losses in one market or type of product with greater gains in another. As discussed above, the bidweek spreadsheets could be, and were, used in real time to monitor the effect of fixed price

[392] Response to Preliminary Findings Letter at 11-45.

[393] The West Desk sometimes stopped its fixed price trading when market trends went against its position to reduce the number of trades at price points that did not benefit its related position.

[394] Response to Preliminary Findings Letter at 21-30.

[395] *Id.* at 30-45; TGPNA 1b.19 Response at 4-5.

trades on related positions,[396] and the traders learned how to trade manipulatively from those spreadsheets and relied on those documents to plan and execute their manipulative scheme.[397] In short, the West Desk's bidweek spreadsheets assisted the desk in executing its manipulative scheme by providing traders with an information dashboard to keep them apprised of how their scheme was working.

#### 4. The Trade Data Shows That the West Desk Took Advantage of Sub-Regional Hubs to Affect Prices

Respondents dispute Enforcement's conclusion that the West Desk's scheme involved trading at smaller regional hubs that report to the same index but have generally higher or lower price levels relative to the overall index.[398] But their claim is not supported by the trade data. TGPNA voluntarily chose to sell at SoCal Needles, a historically lower priced point, in periods when it had a motive to lower the SoCal index price and, conversely, chose to buy at SoCal Ehrenberg, a historically higher priced point, in periods when it had a motive to increase the SoCal index. Based on ICE trade data, SoCal Ehrenberg typically trades at higher prices than SoCal Needles, and West Desk traders used this price variation to unduly influence the SoCal monthly index. Specifically, in months when TGPNA held a long Print Risk position, the trade data shows that they traded more frequently at the premium hub of Ehrenberg to drive up the formation of the SoCal index.[399] In the months when TGPNA held a short position, the opposite trend is apparent; they traded more frequently at the discount hub of Needles to drive down the index price.[400]

#### 5. Enforcement's Finding of Fraud is Based on the Collective and Repeated Nature of the West Desk's Conduct

Respondents contend that each factor that Enforcement relied upon to find fraud, in isolation, does not support a finding of manipulation.[401] As explained above, fraud is a question of fact to be determined by all circumstances of a case and intent to defraud may

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[396] Karimullah Test. at 115:12-116:5.

[397] Wilson Test. Vol. II at 226:17-23; 230:22-231:12; 274:9-13.

[398] Response to Preliminary Findings Letter at 57-58.

[399] The trade data shows that in long months TGPNA traded an average of 24 trades at Ehrenberg and less than 2 trades at Needles and 95 percent of TGPNA's volume is traded at Ehrenberg compared to 5 percent at Needles. *See* TGPNA 000168145 (TGPNA Trade Data).

[400] In short months, TGPNA averaged 6.5 trades at Ehrenberg and 18 trades at Needles. Evaluating the volumes in the short months also supports this theory. *See* TGPNA 000168145 (TGPNA Trade Data).

[401] Response to Preliminary Findings Letter at 57-60.

be inferred from indirect and circumstantial evidence.[402] Respondents' argument ignores the critical fact that Enforcement did not look at individual factors in isolation, but, rather, considered all the facts and circumstances of the West Desk's trading behaviors collectively in determining whether it engaged in manipulative conduct. While any one of the desk's trading strategies, in isolation, might not reveal its desire to manipulate prices, the *collective* and *repeated* nature of strategies it used throughout the Relevant Period evidences its fraudulent intent.

### 6. Respondents Misconstrue the Scienter Requirement

Respondents argue that the scienter standard applicable to the Commission's Anti-Manipulation Rule is vague, suggesting that recklessness may not suffice, and, that if it were to suffice, that the Commission must find "severe" or "extreme" recklessness.[403] The Commission has already rejected this argument.[404] As discussed above, the term *scienter*, for purposes of the Securities Exchange Act of 1934, refers to "a mental state embracing intent to deceive, manipulate, or defraud."[405] Under Order No. 670, recklessness is sufficient to satisfy the requirement.[406] In any event, the West Desk traders engaged in knowing and intentional actions to manipulate published prices of the Relevant Indexes.

### 7. Hall and Tran Should be Held Individually Liable

Respondents argue that the NGA does not authorize the Commission to hold individuals liable as "entities" under the Anti-Manipulation Rule and that the traders here should not be named anyway because none of them were "rogue traders."[407] The Commission has long since decided that a "person" is subject to the Anti-Manipulation

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[402] Order No. 670, FERC Stats. & Regs. ¶ 31,202 at P 50; *United States v. Philip Morris USA Inc.*, 566 F.3d 1095, 1118 (D.C. Cir. 2009) ("A person's state of mind is rarely susceptible of proof by direct evidence, so specific intent to defraud may be, and most often is, inferred from the totality of the circumstances, including indirect and circumstantial evidence.").

[403] Response to Preliminary Findings Letter at 69-70.

[404] *BP America Inc.*, 147 FERC ¶ 61,130, at P 45 (2014) (citations omitted) (*BP America*) ("BP asserts that recklessness must be 'extreme' or severe to meet the scienter element of a manipulation claim. That is incorrect." (citations omitted)).

[405] *Ernst & Ernst v. Hochfelder*, 425 U.S. 185, 193 n.12 (1976) (citations omitted); *see also Matrixx Initiatives, Inc. v. Siracusano*, 563 U.S. 27, 48 (2011).

[406] Order No. 670, FERC Stats. & Regs. ¶ 31,202 at P 53.

[407] Response to Preliminary Findings Letter at 83.

Rule.[408] Furthermore, Enforcement does not contend that Hall and Tran were rogue traders. Moreover, whether Hall and Tran were rogue traders has no effect on their liability for manipulation, which is not limited—nor should it be—to individuals who devise and execute manipulative schemes without express authorization or approval by their companies. As discussed above, the Commission has assessed civil penalties against individuals, including for conduct which also rendered their employers liable.[409]

#### 8. Total and TGPL's Contacts With the United States Are Sufficient to Allow the Commission to Assert Personal Jurisdiction Over Them

Respondents claim that Total and TGPL lack the minimum contacts with the United States necessary for the Commission to assert personal jurisdiction over them.[410] Respondents are wrong under applicable law and the relevant facts. The Commission's exercise of personal jurisdiction over Total and TGPL is appropriate under two grounds.

First, as detailed *supra* in sections II.A.1 and IV.C, Total and TGPL exercised significant control over TGPNA's daily operations, and TGPNA merely served as the "Houstonian trading office" of Total's Gas & Power Division. Courts hold that such "alter-ego relationship[s] between subsidiaries in the forum state and a foreign parent corporation will act as a basis for asserting personal jurisdiction over the parent," as long as doing so "comport[s] with notions of due process."[411] Exercising personal jurisdiction over a foreign parent company is warranted where, as here, the parent "control[s] the day-to-day affairs of the subsidiary, such that the subsidiary is merely a department of the

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[408] Order No. 670, FERC Stats. & Regs. ¶ 31,202 at P 18; *see also City Power Marketing, LLC*, 152 FERC ¶ 61,012, at P 265 (2015) (*City Power*); *Barclays*, 144 FERC ¶ 61,041 at P 113. The portion of the *Barclays* order affirming the Commission's authority to assess penalties against individuals was recently upheld by the United States District Court for the Eastern District of California. *FERC v. Barclays Bank PLC*, 105 F. Supp. 3d 1121, 1146 (E.D. Cal. 2015).

[409] *See, e.g.*, *City Power*, 152 FERC ¶ 61,012; *Houlian Chen*, 151 FERC ¶ 61,179 (2015) (*Chen*); *Maxim Power*, 151 FERC ¶ 61,094; *Richard Silkman*, 144 FERC ¶ 61,164 (2013); *Barclays*, 144 FERC ¶ 61,041; *In re Joseph Polidoro*, 138 FERC ¶ 61,018 (2012); *Brian Hunter*, 135 FERC ¶ 61,054.

[410] *See* Total, S.A. and Total Gas & Power Limited Response to 18 C.F.R. § 1b.19 Notice, Dec. 29, 2015 (Total/TGPL 1b.19 Response), at 3.

[411] *Cali v. East Coast Aviation Servs., Ltd.*, 178 F. Supp. 2d 276, 285-86 (E.D.N.Y. 2001) (holding that personal jurisdiction over British parent corporation was justified because U.S. subsidiary was part of parent's global entity).

agent."[412] In determining whether an alter-ego relationship exists, courts consider multiple factors, including, as relevant here, common officers and directors, common marketing image, common trademark or logo, common use of employees, integrated sales system, interchange of managerial and supervisory personnel, financing of the subsidiary by the parent, under-capitalization of the subsidiary, the subsidiary's lack of assets apart from the parent, and the parent paying salaries of the subsidiary.[413] As described *supra*, these factors are present between TGPNA and Total and TGPL. Therefore, their alter-ego relationship supports the Commission's exercise of personal jurisdiction over Total and TGPL. Moreover, such exercise of personal jurisdiction comports with notions of due process because of Total's and TGPL's "continuous and systematic" commercial activity in the United States, as described below.

Second, it is appropriate for the Commission to exercise personal jurisdiction over Total and TGPL under the NGA and a constitutional due process analysis. With regard to the statutory basis, courts find that where statutes provide for nationwide or worldwide service of process, such as the NGA,[414] the exercise of personal jurisdiction is allowed if it does not violate the constitution, and the "relevant inquiry is whether the respondent has had sufficient minimum contacts with the United States."[415] Regarding the constitutional basis, the Commission's exercise of personal jurisdiction over Total and TGPL does not violate their due process rights because they have sufficient minimum contacts with the United States to exercise general jurisdiction over them. In arguing against the exercise of personal jurisdiction, Total and TGPL claim that "a parent corporation cannot be subjected to general personal jurisdiction in a forum based solely on its subsidiary's contacts with the forum."[416] But Enforcement is not alleging personal jurisdiction based on TGPNA's contacts with the United States. To the contrary, Enforcement bases its claim on *Total's and TGPL's own contacts* with the United States, which are "continuous and systematic."[417]

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[412] *Id.* at 286 (quoting *Bellomo v. Pa. Life Co.*, 488 F. Supp. 744, 745 (S.D.N.Y. 1980) (internal quotations omitted)).

[413] *Id.*

[414] *See* 15 U.S.C. § 717u (2012) ("Any suit or action to enforce any liability or duty created by, or to enjoin any violation of, this chapter or any rule, regulation, or order thereunder may be brought in any such district or in the district wherein the defendant is an inhabitant, and process in such cases may be served wherever the defendant may be found.").

[415] *SEC v. Carrillo*, 115 F.3d 1540, 1543 (11th Cir. 1997).

[416] Total/TGPL 1b.19 Response at 3 (citing *Daimler AG v. Bauman*, 134 S. Ct. 746, 754 (2014)).

[417] *Perkins v. Benguet Consol. Mining Co.*, 342 U.S. 437, 445 (1952).

For example, both companies conduct continuous commercial activity in the United States. On an annual basis, Total files Form 20-Fs, which the SEC requires from foreign private issuers of debt.[418] As an issuer of debt in the United States, Total attempts to raise money in United States markets and, thereby, is engaging in commercial activity in the United States. Similarly, Total markets the shares of its stock (sold as American Depositary Receipts, or ADRs) on the New York Stock Exchange,[419] and markets production assets in North America through TGPNA.[420] It also provides parent company guarantees to TGPNA's counterparties in this country.[421] Meanwhile, TGPL has entered into thousands of natural gas transactions in various United States markets, including Henry Hub, Houston Ship Channel, and SoCal.[422] As Hall testified, TGPL trades North American natural gas products, including Henry Hub look-alike swaps, options, and financial basis swaps at a few points, including SoCal.[423] This type of sustained commercial activity in the United States by Total and TGPL provides sufficient minimum contacts "such that the maintenance of the suit does not offend traditional notions of fair play and substantial justice."[424]

In addition to this sustained commercial activity with the United States markets, Total and TGPL have continuous and systematic contacts with the United States related to their specific oversight of TGPNA's daily business operations. The Vice President of Trading at TGPL, Jean-Pierre Mateille, regularly visits TGPNA's office in Houston and serves as the Chairman of TGPNA.[425] TGPL communicates with TGPNA through an open voice line.[426] TGPL supervises daily operation of, and retains administrative control over, the information technology at the core of TGPNA's business.[427] Total has provided parent company guarantees to TGPNA for purposes of establishing credit

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[418] *See, e.g.*, Total, S.A. Form 20-F (March 26, 2015).

[419] *See id.* at 151.

[420] Complaint for Declaratory Relief at 7.

[421] *See, e.g.*, TGPNA F 02326927-931 (Meeting minutes from December 14, 2012 TGPNA board meeting at which Total agreed to provide an unlimited guarantee of credit to TGPNA for an LNG contract with a third party).

[422] *See* TGPNA 000168145 (identifying nearly 2,000 trades between TGPNA and TGPL between 2007 and 2012 in United States natural gas markets).

[423] Hall Test. Vol. I at 87:14-90:25.

[424] *Helcopteros Nacionales De Colombia, S.A. v. Hall*, 466 U.S. 408, 414 (1984) (citation and quotations omitted).

[425] Henderson Test. at 71:17-72:1 (explaining that Mateille visits TGPNA's office "regularly" to talk about the organization); Mateille Test. at 46:21-48:13.

[426] Hall Test. Vol. I at 30:4-6, 90:1-2.

[427] Groeschel Test. at 41:11-20, 51:3-54:7, 175:10-177:7.

relationships in its trading business.[428] Total and TGPL select and hire TGPNA's Vice President of Trading,[429] and TGPL sets the bonus for TGPNA's president.[430] These, and other connections to TGPNA's business in Houston, also serve as sufficient minimum contacts to subject Total and TGPL to personal jurisdiction.

### 9. Open Market Manipulation

Respondents argue that "[o]pen market activity cannot be the market manipulation unless Enforcement proffers evidence that *but for* the manipulative intent, the trade would not have occurred."[431] But that is not the correct legal test. The Commission addressed open-market manipulation precedent at length in its Order Assessing Civil Penalties for *Barclays*, and did not adopt a "but for" test. Rather, the Commission held that "otherwise legal conduct undertaken with manipulative intent" violates the Anti-Manipulation Rule.[432]

### 10. Proof of Market Manipulation Can Stem From Indirect Inferences of Intent Based on Circumstantial Evidence

Respondents argue that proof of market manipulation requires some contemporaneous communications offering direct evidence of the scheme.[433] This argument is without merit. In rejecting similar arguments in *Barclays*, the Commission emphasized that "[s]peaking documents that provide direct evidence of a violation are rare in fraud and manipulation cases, which do not require direct evidence of intent and instead typically rely on more indirect inferences of intent from circumstantial evidence."[434] The Commission stated further that "[t]he presence of a fraudulent intent is

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[428] *See, e.g.*, TGPNA F 02326927-931 (Meeting minutes from December 14, 2012 TGPNA board meeting at which Total agreed to provide an unlimited guarantee of credit to TGPNA for LNG contract with a third party).

[429] Henderson Test. at 66:4-14.

[430] *Id.* at 51:11-16.

[431] Response to Preliminary Findings Letter at 65 (emphasis added) (citing cases).

[432] *Barclays*, 144 FERC ¶ 61,041 at PP 50-58 (citing, *inter alia*, *Brian Hunter*, 135 FERC ¶ 61,054 at P 51-53 (rejecting a "safe harbor for manipulative schemes premised on otherwise legal trading activities") (internal citations omitted)); *see also Barclays Bank PLC*, 105 F. Supp. 3d at 1147 (rejecting argument that "trades which involve willing counterparties made on the open market cannot be actionable under Section 10(b)" (citing securities law cases)); *BP America*, 147 FERC ¶ 61,130 at PP 38-39.

[433] *See* TGPNA 1b.19 Response at 3.

[434] *Barclays*, 144 FERC ¶ 61,041 at P 7 (citing *U.S. v. Sullivan*, 406 F.2d 180, 186 (2d Cir. 1969) and *Investigation of Terms and Conditions of Public Utility Market-Based Rate Authority*, 105 FERC ¶ 61,218, at P 43 (2006)).

rarely susceptible of direct proof, and must instead be established by legitimate inferences from circumstantial evidence. These inferences are based on the common knowledge of the motives and intentions of men in like circumstances."[435]

Moreover, Respondents miss a more fundamental point: the proof against them *does* include direct evidence. Wilson admitted that he knowingly engaged in the West Desk's manipulative scheme for several months under Tran's supervision. Moreover, the circumstantial evidence in this matter is strong, including credible testimony describing the scheme, trade data corroborating that testimony, and testimony and communications from TGPNA's Vice President of Risk Control confirming the existence of trading "patterns that looked like suboptimal trading."[436]

### 11. Enforcement Is Recommending Penalties Based on Trading Conduct During 38 Point-Months During the Relevant Period

Respondents challenge Enforcement's case on the theory that Enforcement cherry-picked the 38 point-months and the Relevant Locations and has no explanation for why the scheme did not occur during other months or at other locations during the three-year period at issue. But it is not a defense to suggest that the unlawful conduct only occurred some of the time. The central question in any enforcement matter is whether unlawful activity occurred. That is what happened here. Enforcement found, based on evidence from Wilson and Callender, other evidence obtained from Respondents, and the relevant trade data, that there is substantial evidence that the West Desk engaged in an unlawful scheme to manipulate the natural gas markets during many months between June 2009 and June 2012. As discussed above, while Enforcement found that the West Desk engaged in its manipulative scheme in many months during the Relevant Period, it is identifying, and calculating a penalty and disgorgement based on, 38 of the point-months during this period when the desk's trading behaviors were most discernable, its market concentration had the most material impact on prices, and it had the most significant financial incentive in terms of the size of its Print Risk position.

## V. Remedies & Sanctions

The Commission has two means of imposing monetary remedies in response to a violation of the Anti-Manipulation Rule. The Commission can—and generally does—order disgorgement of unjust profits pursuant to its plenary authority in NGA section 16,[437] and it can order the imposition of civil penalties pursuant to its civil penalty

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[435] *Barclays,* 144 FERC ¶ 61,041 at P 75 (citations and quotations omitted).

[436] Bondareva Test. Vol. II at 63:1-9; Mateille Test. Ex. 9 (TGPNA F 01771676-77).

[437] 15 U.S.C. § 717o (2012); *see also* FERC Penalty Guidelines § 1B.1(a); *Enforcement of Statutes, Orders, Rules, and Regulations*, 132 FERC ¶ 61,216, at P 216

authority in NGA section 22.[438] Both tools are appropriate here because Respondents earned unjust profits as a result of their scheme and because "civil penalties are an important tool to achieve compliance."[439]

The Commission may assess a civil penalty of up to $1 million per day, per violation against any person that violates the NGA or any rule, regulation, restriction, condition, or order thereunder.[440] To determine an appropriate penalty under this statutory maximum, the Commission focuses on the following two factors: (1) "the nature and seriousness of the violation" and (2) "the efforts to remedy the violation."[441] TGPNA, Hall, and Tran's violations were serious. The violations caused a large amount of pecuniary harm to other market participants by distorting natural gas index prices during the Relevant Period at four heavily traded market hubs in the southwestern United States. As described below, Enforcement estimates that the West Desk's trading scheme caused approximately $89 million in market harm. Other measures of the seriousness of the scheme include: the persistent nature of the West Desk's scheme that spanned a three-year period; the West Desk's disproportionate share of physical fixed price volumes and deals during the relevant bidweek periods at large market hubs;[442] and the manipulative and deceptive nature of the scheme, which was central to the West Desk's business strategy. Another aggravating factor relevant to the seriousness of the violations is that substantial authority personnel at TGPNA—including its President and Vice President of Trading—were willfully ignorant of the violations, having failed to follow up on concerns raised about the West Desk's trading conduct.

Regarding Respondents' efforts to remedy their violations, this factor also weighs in favor of a significant penalty. They made no effort to remedy their violations and, indeed, persisted in their conduct despite warnings and concerns raised to TGPNA's senior management. As described *supra*, during the Relevant Period, TGPNA's

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(2010) (Revised Policy Statement on Penalty Guidelines) ("The Commission has always required disgorgement in addition to the assessment of civil penalties.").

[438] 15 U.S.C. § 717t-1 (2012).

[439] *Revised Policy Statement on Penalty Guidelines*, 132 FERC ¶ 61,216 at P 112.

[440] 15 U.S.C. § 717t-1 (2012). During the 38 point-months, TGPNA made a total of 1,182 fixed price trades. *See* TGPNA 000168145 (TGPNA Trade Data). Each of these trades is subject to the Commission's $1 million per day, per violation penalty authority.

[441] 15 U.S.C. § 717t-1 (c) (2012).

[442] TGPNA's 1,182 fixed price trades during the 38 point-months amounted to a total volume of more than 235 Bcf. *See* TGPNA 000168145 (TGPNA Trade Data). On average across the 38 bidweek periods, TGPNA's market share in volumes on ICE (buys and sales) amounted to more than 58 percent. *See* ICE Data.

Compliance Department, Middle Office, and senior management knew that its West Desk's bidweek trading raised compliance concerns regarding its large positions that profited from its fixed price trading's effect on published index prices; very high market share of fixed price volumes during bidweek; and deviation in its bidweek prices from the rest of the market.[443] TGPNA's Chief Compliance Officer warned management to consider "ramping down its fixed price and physical basis trading in the markets in which it has a large share."[444] But TGPNA management did not follow up on any of the warnings by speaking directly to the traders. Essentially, all such warnings and alarms were ignored and, as a result, the traders continued to manipulate.

Mitigating factors in Respondents' penalty determination are minimal. Respondents cooperated in Enforcement's investigation, but they did not self-report the violations, did not accept responsibility for their conduct, and did not avoid a trial-type hearing, all factors under the Commission's Penalty Guidelines.[445] Moreover, TGPNA's compliance program in place at the time of the violations does not warrant any credit. Although TGPNA had a documented program in place, it was not effective in detecting and deterring the West Desk's manipulative conduct because TGPNA management did not follow up on the concerns raised by the compliance and middle offices, as described *supra* in Section III.C.[446] In this way, TGPNA's program was one of form over substance. As Hall testified about the compliance program's training, "some of the compliance training can be a little bit too easily just skimmed over without taking in any of the substance, but it fulfills the obligations of the company to supply it."[447]

[443] *See supra* Section III.C.

[444] Craven Test. Ex. 4 at TGPNA 001987005.

[445] FERC Penalty Guidelines § 1C2.3(g).

[446] TGPNA has a history of failing to appropriately respond to compliance concerns and infractions. For example, in 2010 TGPNA management discovered that several traders, including Hall, had intentionally falsified its books to speculate in an unauthorized product called EIA Storage Swaps. Craven Test. at 222:9-232:13. In response to this conduct, TGPNA management removed Gary Craven from his position as internal controller; in sharp contrast, not a single trader involved in the wrongdoing was disciplined, and some, including Hall, actually received promotions shortly thereafter. Craven Test. at 221:15-234:6; Hall Test. Vol. II at 225:7-233:15. In another incident in 2010, TGPNA failed to terminate a trader for calling a counterparty while intoxicated and telling the counterparty that "[w]e could both make more money if we coordinated more." Testimony of John Griffiths at 281:14-283:9, Ex. 24 (TGPNA 001980600) (June 25, 2014).

[447] Hall Test. Vol. II at 203:21-24.

In sum, Respondents' conduct warrants the imposition of significant penalties to create appropriate deterrence for other market participants who might otherwise consider engaging in similar manipulative conduct. Below, Enforcement describes its specific disgorgement and penalty recommendations.

### A. Recommended Remedies and Sanctions Against TGPNA, TGPL, and Total

#### 1. Disgorgement

TGPNA received approximately $9.18 million in unjust profits as a result of its manipulative bidweek trading scheme during the 38 point-months between June 2009 and June 2012. Enforcement calculated TGPNA's unjust profits by applying a cash-in/cash-out method for each of the 38 point-months, as of the last day of bidweek. Under this method, Enforcement compared TGPNA's cost of acquiring a product to the price for which it liquidated the product. Enforcement applied this method to all transactions relevant to TGPNA's bidweek scheme. This included monthly fixed price and monthly index transactions on the physical side, as well as basis swaps, index swaps, swing swaps, and fixed-for-float swaps on the financial side. Swing swaps were included to account for physical molecules TGPNA carried into the month after the relevant bidweek period. All of the other products included in Enforcement's calculation are relevant because they either contributed to published monthly index prices or were exposed to such prices.

Disgorgement "'need only be a reasonable approximation of profits causally connected to the violation.'"[448] Enforcement's recommended disgorgement amount represents a "reasonable approximation," given that it accounts for all of TGPNA's transactions associated in some way with its manipulative scheme. Accordingly, Enforcement recommends that TGPNA be ordered to disgorge $9.18 million, with interest. Also, in light of Total and TGPL's significant control and authority over TGPNA's daily operations, as described above, they should be held jointly and severally liable for this disgorgement payment.[449]

#### 2. Civil Penalty

Section 2B1.1 of the Commission's Penalty Guidelines applies to the type of fraudulent conduct at issue here. This section measures the seriousness of fraud-based violations by considering the loss, or market harm, caused by the violations.[450] In determining an appropriate penalty under this section, the Commission "need only make

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[448] *Chen*, 151 FERC ¶ 61,179 at P 189 (quoting *SEC v. Whittemore*, 659 F.3d 1, 7 (D.C. Cir. 2011)).

[449] *See Whittemore*, 659 F.3d at 10-11 (it is proper to impose joint and several liability for disgorgement where there is a "close relationship between the defendants").

[450] FERC Penalty Guidelines § 2B1.1, Application Note 2.

a reasonable estimate of the loss."[451] The nature of TGPNA's manipulative scheme precludes a precise quantification of market harm, and there are multiple reasonable approaches to calculate an estimate of harm. Enforcement has employed a reasonable, conservative approach to calculating the harm. Using this method, described below, Enforcement estimates that the scheme caused more than $89 million in market harm to other participants who held physical and financial positions that were exposed to the manipulated index prices.[452]

Enforcement calculated this market harm figure by (1) estimating the impact of TGPNA's conduct on the relevant index prices, as an average across the 38 point-months; and (2) multiplying this average impact by an estimate of the total volume of physical and financial products that were exposed to the manipulated index prices. To estimate the first side of the equation—impact on the relevant index prices—Enforcement used an approach that considered how much TGPNA would have had to move the index price in order for the profits on its Print Risk position to at least offset any losses it incurred on its fixed price trades during bidweek. Using this approach, Enforcement calculated an average market impact of $.033, meaning that the index prices during each of the 38 point-months were moved by an average of 3.3 cents by TGPNA's conduct.[453]

After calculating TGPNA's impact on the Relevant Indexes, Enforcement multiplied this $.033 figure by the second side of the equation—an estimate of the total volume of physical and financial products exposed to the impacted indexes. To calculate this volume, Enforcement used ICE data showing the financial open interest positions at the Relevant Locations for the 38 point-months, which totaled 2208.9 Bcf. In addition, Enforcement collected physical first-of-the-month index positions for the relevant point-months from 45 market participants, representing a subset of market participants affected by the scheme. These physical volumes totaled 502.1 Bcf. Adding the ICE open interest volumes to the physical first-of-the-month index volumes, Enforcement estimated that TGPNA's conduct harmed a total volume of 2711 Bcf (2208.9 Bcf + 502.1 Bcf). Finally, multiplying Enforcement's market impact estimate ($.033) by Enforcement's estimate of

[451] *Id.* § 2B1.1, Application Note 2(C).

[452] If the Commission sets this matter for a hearing, Enforcement anticipates that it would submit expert testimony regarding market harm, and the experts would conduct their own market harm analyses and calculations.

[453] TGPNA's Chief Compliance Officer, Craven, conducted his own calculation of "TGPNA Reporting Effect on Price" each month between February 2009 and February 2011 at various locations, including the Relevant Locations. *See, e.g.*, Craven Test. Ex. 4 at TGPNA 001986909 (showing table for May 2010 bidweek period). By comparison, if applied to the 38 point-months, Craven's approach would result in an average impact of $.032.

harmed volumes (2711 Bcf) results in Enforcement's estimate of market harm of approximately $89 million.[454]

In addition to the market harm consideration, the Penalty Guidelines also consider the volumes of energy and duration of fraud-based violations. Relevant to these factors, Enforcement considered that the West Desk's manipulative bidweek trades during the Relevant Period involved more than 700,000 MMBtus of natural gas and continued for a period of more than 250 days.[455] Applying these factors, as well as the mitigating and aggravating factors described above, Enforcement recommends a penalty of $213,600,000 for TGPNA. In light of Total and TGPL's significant control and authority over TGPNA's daily operations, as described above, they should be held jointly and severally liable for this civil penalty.[456]

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[454] Respondents argue that Enforcement's market harm calculation is not credible because it omits key variables, treats the market as static, and assumes that all of TGPNA's trades during the 38 point-months were manipulative. TGPNA 1b.19 Response at 5. This argument ignores that the Penalty Guidelines contemplate only a "reasonable estimate of loss," which is a particularly appropriate standard in this case given that a precise quantification would be impossible. More importantly, it is not even necessary for the Commission to calculate market harm to assess a penalty for Respondents' violations. The Commission has authority to penalize Respondents "$1,000,000 per day per violation" irrespective of any market harm figure, or even the existence of market harm. 15 U.S.C. § 717t-1(a) (2012). Therefore, the market harm estimate is not dispositive for purposes of determining an appropriate penalty under the NGA.

[455] *See* FERC Penalty Guidelines § 2B1.1(b)(2).

[456] The Commission has the discretion to impose joint and several liability on Total and TGPL for TGPNA's penalty based on their close relationship. Courts routinely impose joint and several liability for civil penalties under statutes, like the NGA, that do not prohibit such remedy. *See, e.g., Mortgages, Inc. v. U.S. Dist. Court for Dist. of Nev. (Las Vegas)*, 934 F.2d 209, 212 (9th Cir. 1991) (joint and several liability for statutory penalty); *CFTC v. Hunter Wise Commodities, LLC*, 21 F. Supp. 3d 1317, 1353 (S.D. Fla. 2014) (joint and several $55.4 million civil penalty); *EPA v. Envtl. Waste Control, Inc.*, 710 F. Supp. 1172, 1245 (N.D. Ind. 1989), *aff'd*, 917 F.2d 327 (7th Cir. 1990) ("a civil penalty of $2,778,000 should be assessed against the defendants jointly and severally"). The Commission's ability to impose joint and several liability is also in line with settled law giving regulatory agencies wide latitude to choose appropriate remedies for penalties. *See Niagara Mohawk Power Corp. v. Federal Power Commission*, 379 F.2d 153, 159 (D.C. Cir. 1967) (explaining that "the breadth of agency discretion is, if anything, at zenith when the action assailed relates . . . to the fashioning of policies, remedies and sanctions . . . ."); *see also* 15 U.S.C. § 717o (2012) (plenary power of Commission to,

### B. Recommended Remedies and Sanctions Against Traders Aaron Hall and Therese Tran

The Penalty Guidelines do not apply to individuals. Instead, the Commission determines penalties "for natural persons [such as Hall and Tran] based on the facts and circumstances of the violation but will look to [the Penalty Guidelines] for guidance in setting those penalties."[457] To determine penalties for individuals, the Commission has considered the following five factors from its Revised Policy Statement on Enforcement: (1) seriousness of the violation; (2) commitment to compliance; (3) self-reporting, (4) cooperation; and (5) reliance on OE Enforcement guidance.[458]

Based on the facts set forth above regarding their design, implementation, and supervision of the manipulative bidweek trading scheme, Enforcement recommends a civil penalty for Tran of $2 million, and a civil penalty for Hall of $1 million.[459] Hall and Tran knowingly devised and implemented the manipulative scheme designed to affect monthly index prices to the detriment of others and benefit of their related positions. The conduct was not isolated, but persistent over a three-year period. It affected prices at four of the most heavily traded markets in the southwestern United States. Hall and Tran cooperated with Enforcement's investigation, but did not self-report the violations or make any effort to mitigate the harm from them.

Hall and Tran can afford to pay these penalties.[460] Also, in light of the fact that Hall and Tran executed the fraudulent trades on behalf of TGPNA, Total, and TGPL it is

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among other things, "perform any and all acts . . . as it may find necessary or appropriate to carry out the provisions of this act").

[457] FERC Penalty Guidelines § 1A1.1, Application Note 1.

[458] *See Revised Policy Statement on Enforcement*, 123 FERC ¶ 61,156 at PP 54-71; *Kourouma*, 135 FERC ¶ 61,245, at PP 42-52 (2011) (analyzing factors from Revised Policy Statement on Enforcement to determine appropriate penalty for individual).

[459] If the Commission were to find that Hall and Tran engaged in a manipulative scheme in violation of NGA section 4A, Enforcement would also be prepared to recommend that the Commission initiate an action in an appropriate United States district court under NGA section 20(d) to prohibit them from "acting as an officer or director of a natural gas company," or engaging in the purchase or sale of natural gas or natural gas transmission services subject to the Commission's jurisdiction. 15 U.S.C. § 717s(d) (2012).

[460] In 2012, Tran earned a salary of $185,000, and she received annual bonuses between 2009 and 2013 ranging from $225,000 to $405,000. Nguyen Test. Vol. I at 35:11; TGPNA F 02117706 (Nguyen Personnel File). In 2011, Hall's last year at TGPNA before he left for TGPL, he earned a salary of approximately $250,000.

appropriate to hold these three entities jointly and severally liable for Hall's and Tran's civil penalties.[461]

## VI. Conclusion

For the reasons discussed above, Enforcement recommends that the Commission direct TGPNA, Hall, and Tran to show cause why they have not violated section 4A of the NGA and section 1c.1 of the Commission's regulations, which prohibit the manipulation of natural gas markets. Enforcement further recommends that the Commission direct Total and TGPL to show cause why they should not be held liable for the conduct of TGPNA, Hall, and Tran. Enforcement also recommends that the Commission direct TGPNA, Total, and TGPL to show cause why they should not be required joint and severally to disgorge $9.18 million in unjust profits, and why they should not be required joint and severally to pay a civil penalty of $213,600,000 for TGPNA's conduct. In addition, Enforcement recommends that that Commission direct Hall to show cause why he should not be required to pay a civil penalty of $1 million. Finally, Enforcement recommends that that Commission direct Tran to show cause why she should not be required to pay a civil penalty of $2 million.

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Between 2008 and 2011, Hall received annual bonuses at TGPNA ranging from $400,000 to $575,000. TGPNA F 02117240 (Hall Personnel File).

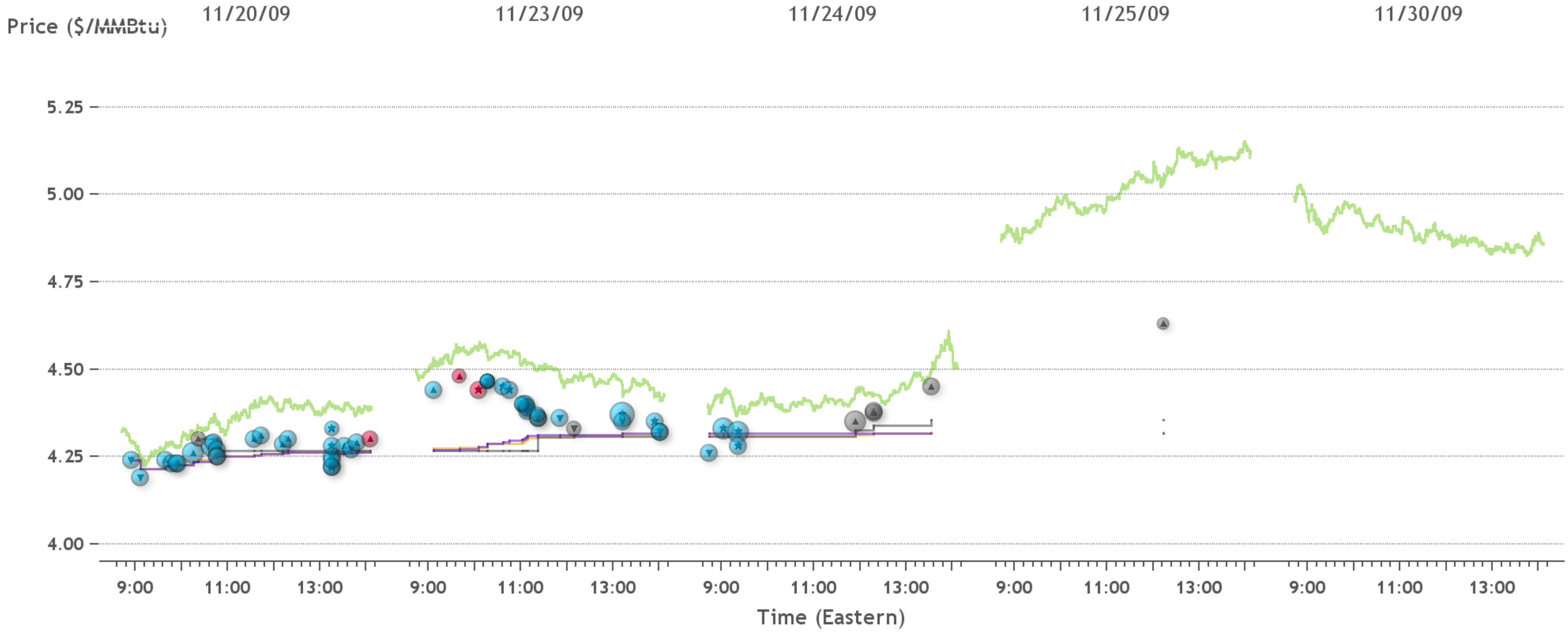
[461] *See supra* footnote 455.

## APPENDIX A

| Location | Bidweek Period |
|---|---|
| Waha | Jul-09 |
| Waha | Dec-09 |
| Waha | Mar-10 |
| Waha | Apr-10 |
| Waha | May-10 |
| Waha | Mar-11 |
| Waha | Apr-11 |
| Waha | May-11 |
| Waha | Sep-11 |
| Waha | Oct-11 |
| Waha | Nov-11 |
| Waha | Jan-12 |
| Waha | Feb-12 |
| Waha | Jun-12 |
| Waha | Jul-12 |
| SoCal | Sep-09 |
| SoCal | Oct-09 |
| SoCal | Apr-10 |
| SoCal | Jan-11 |
| SoCal | Jul-11 |
| SoCal | Aug-11 |
| SoCal | Oct-11 |
| SoCal | Nov-11 |
| SoCal | Dec-11 |
| SoCal | Jan-12 |
| SoCal | Apr-12 |
| Permian | Dec-09 |
| Permian | Mar-10 |
| Permian | May-10 |
| Permian | Jun-11 |
| Permian | Aug-11 |
| Permian | Sep-11 |
| Permian | Oct-11 |
| Permian | May-12 |
| SanJuan | May-10 |
| SanJuan | Mar-11 |
| SanJuan | Dec-11 |
| San Juan | Apr-12 |

# APPENDIX B

## Physical Fixed-Price Trades at Permian Basin during Bidweek for December 2009

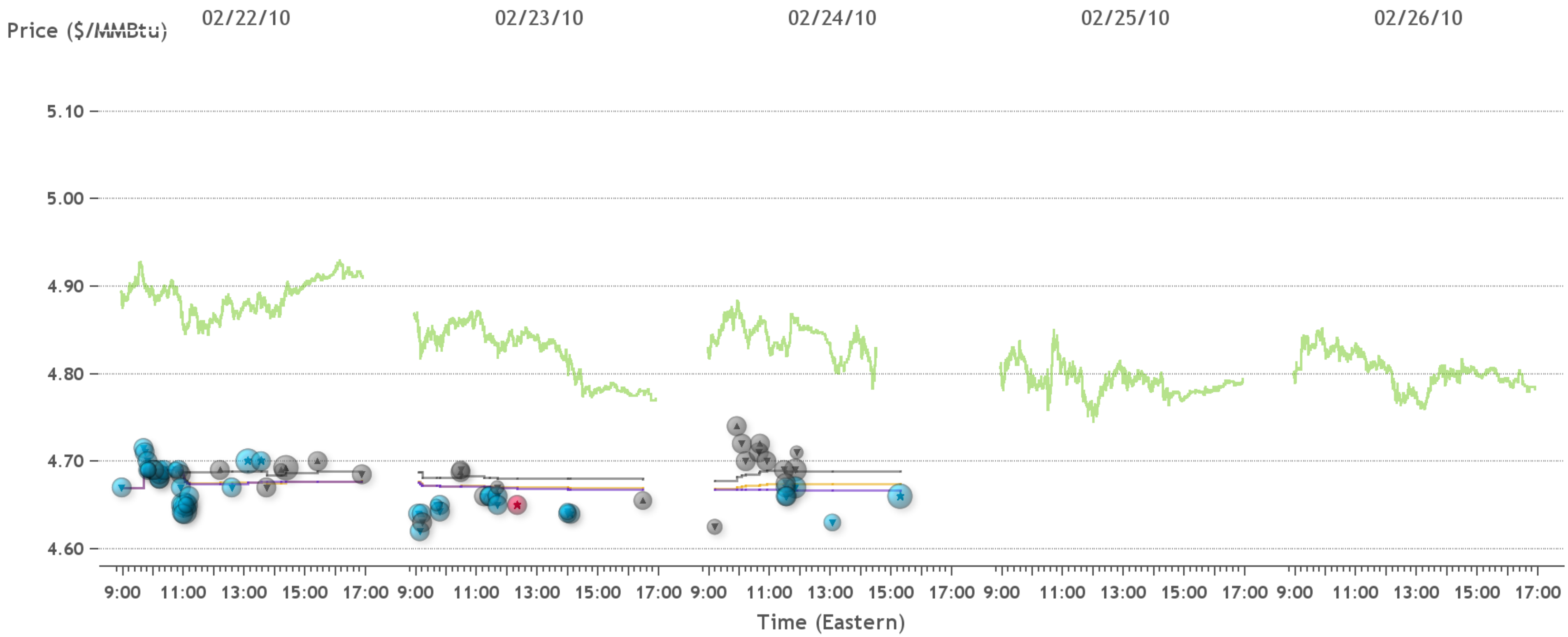



Legend:
● Non-TGPNA Trade ● TGPNA Sale ● TGPNA Buy
▼ ICE Consummated Bid ▲ ICE Consummated Offer ★ TGPNA Off-ICE Trade
ICE VWAP — TGPNA ICE VWAP — Non-TGPNA ICE VWAP — Nymex
Note: The circle size reflects the relative trade size.

TGPNA's ICE Buy Volume Share: 2.8%
TGPNA's ICE Sale Volume Share: 78.4%
TGPNA's Final VWAP (ICE and Off-ICE): $4.317
Non-TGPNA Final ICE VWAP: $4.354
IFERC Print: $4.32

**Data Sources: ICE, TGPNA, and IFERC**

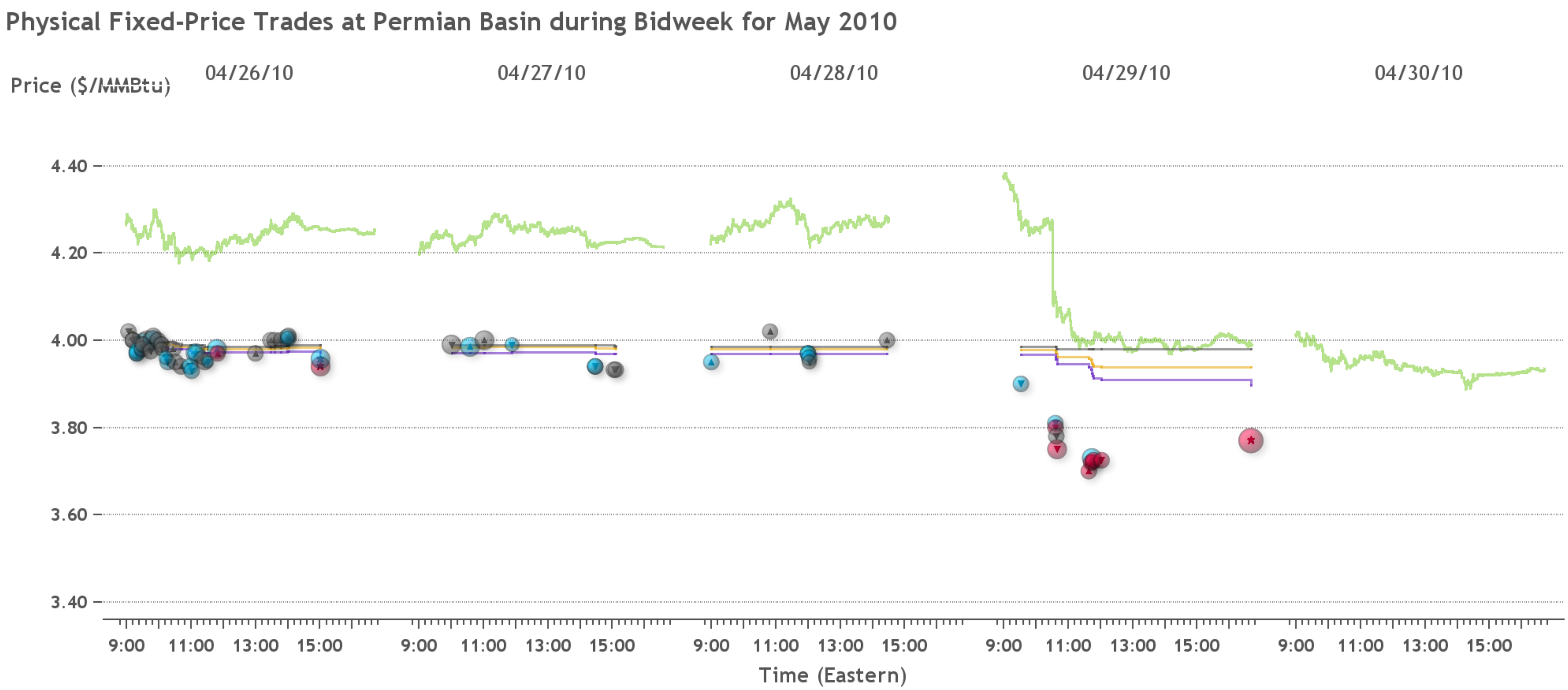
## Physical Fixed-Price Trades at Permian Basin during Bidweek for March 2010




Legend:
● Non-TGPNA Trade ● TGPNA Sale ● TGPNA Buy
▼ ICE Consummated Bid ▲ ICE Consummated Offer ★ TGPNA Off-ICE Trade
ICE VWAP — TGPNA ICE VWAP — Non-TGPNA ICE VWAP — Nymex
Note: The circle size reflects the relative trade size.

TGPNA's ICE Buy Volume Share: 0.0%
TGPNA's ICE Sale Volume Share: 64.1%
TGPNA's Final VWAP (ICE and Off-ICE): $4.666
Non-TGPNA Final ICE VWAP: $4.689
IFERC Print: $4.67

**Data Sources: ICE, TGPNA, and IFERC**




Legend:
● Non-TGPNA Trade ● TGPNA Sale ● TGPNA Buy
▼ ICE Consummated Bid ▲ ICE Consummated Offer ★ TGPNA Off-ICE Trade
ICE VWAP — TGPNA ICE VWAP — Non-TGPNA ICE VWAP — Nymex
Note: The circle size reflects the relative trade size.

| | |
|---|---|
| TGPNA's ICE Buy Volume Share: | 13.1% |
| TGPNA's ICE Sale Volume Share: | 39.6% |
| TGPNA's Final VWAP (ICE and Off-ICE): | $3.898 |
| Non-TGPNA Final ICE VWAP: | $3.980 |
| IFERC Print: | $3.94 |

**Data Sources: ICE, TGPNA, and IFERC**

## Physical Fixed-Price Trades at Permian Basin during Bidweek for June 2011


Legend:

● Non-TGPNA Trade ● TGPNA Sale ● TGPNA Buy

▼ ICE Consummated Bid ▲ ICE Consummated Offer ★ TGPNA Off-ICE Trade

ICE VWAP — TGPNA ICE VWAP — Non-TGPNA ICE VWAP — Nymex

Note: The circle size reflects the relative trade size.

TGPNA's ICE Buy Volume Share: 1.8%

TGPNA's ICE Sale Volume Share: 64.5%

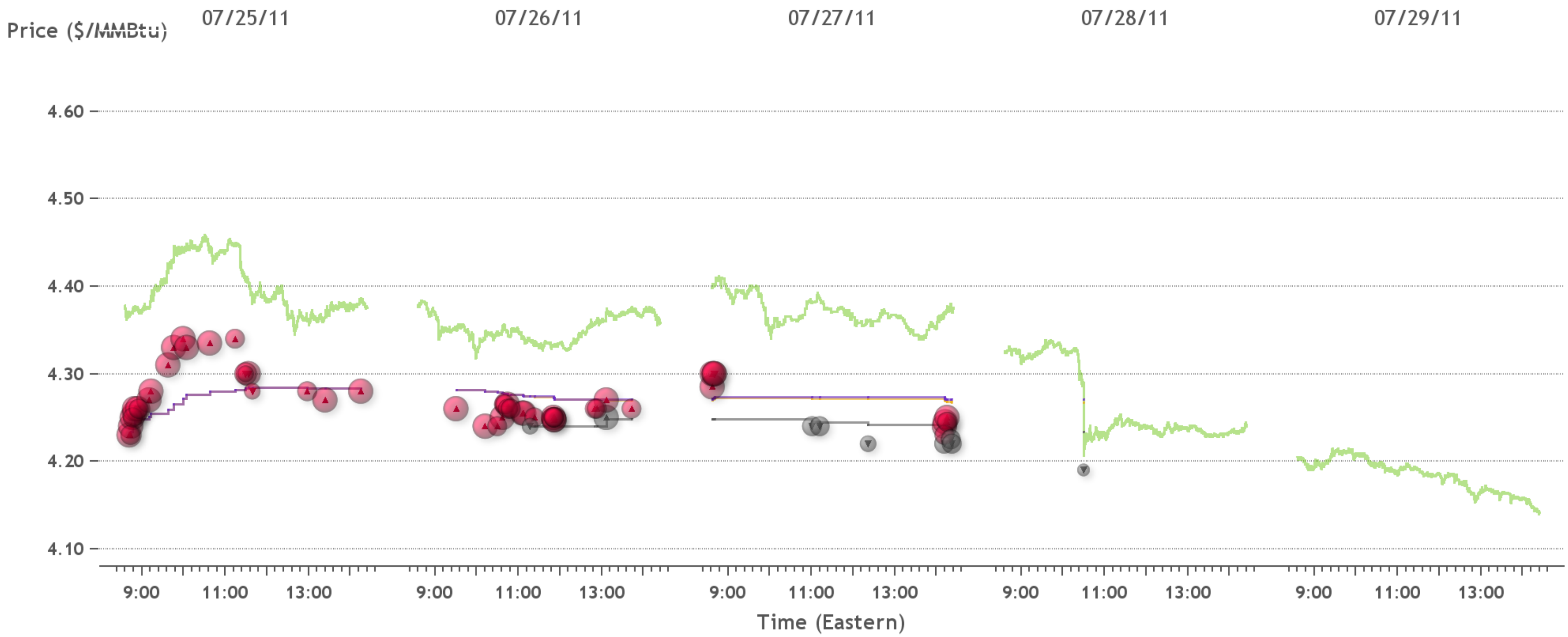
TGPNA's Final VWAP (ICE and Off-ICE): $4.145

Non-TGPNA Final ICE VWAP: $4.170

IFERC Print: $4.15

**Data Sources: ICE, TGPNA, and IFERC**

## Physical Fixed-Price Trades at Permian Basin during Bidweek for August 2011




Legend:

● Non-TGPNA Trade ● TGPNA Buy

▼ ICE Consummated Bid ▲ ICE Consummated Offer ★ TGPNA Off-ICE Trade

ICE VWAP — TGPNA ICE VWAP — Non-TGPNA ICE VWAP — Nymex

Note: The circle size reflects the relative trade size.

TGPNA's ICE Buy Volume Share: 91.5%

TGPNA's ICE Sale Volume Share: 0.0%

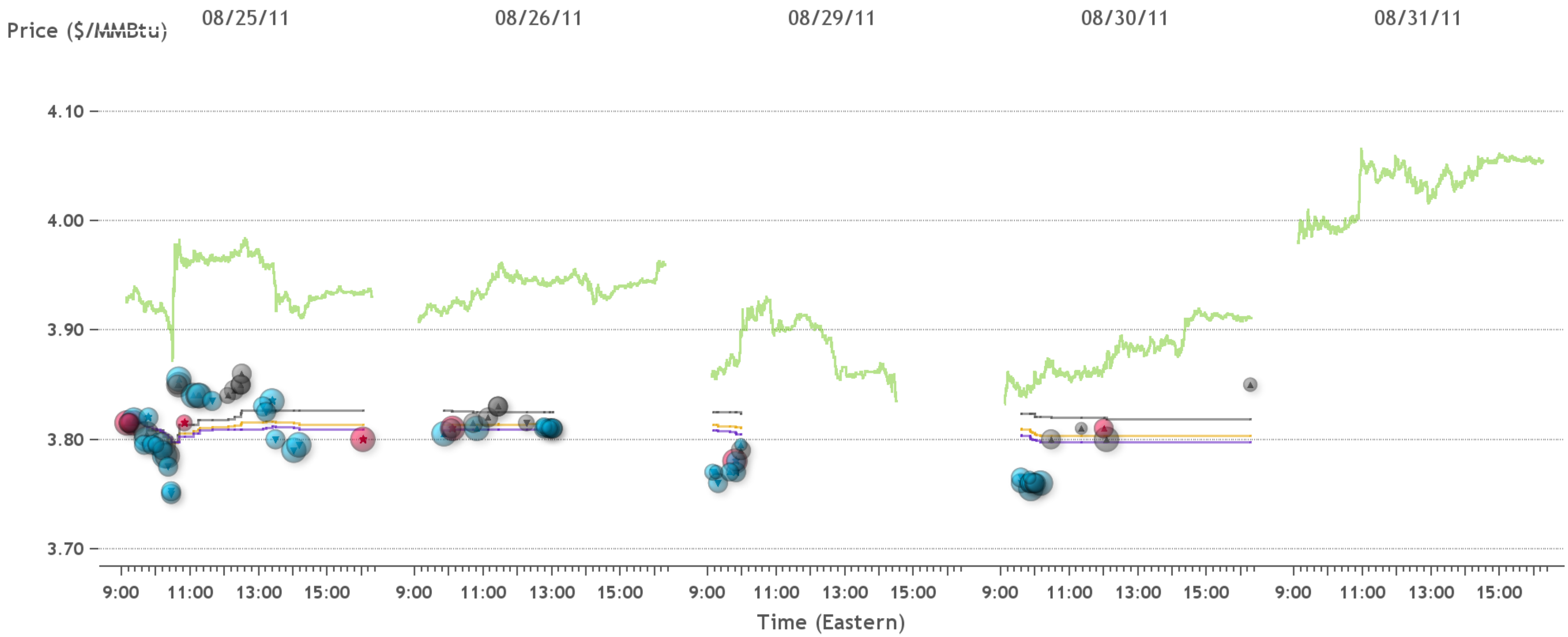
TGPNA's Final VWAP (ICE and Off-ICE): $4.270

Non-TGPNA Final ICE VWAP: $4.234

IFERC Print: $4.27

**Data Sources: ICE, TGPNA, and IFERC**

## Physical Fixed-Price Trades at Permian Basin during Bidweek for September 2011

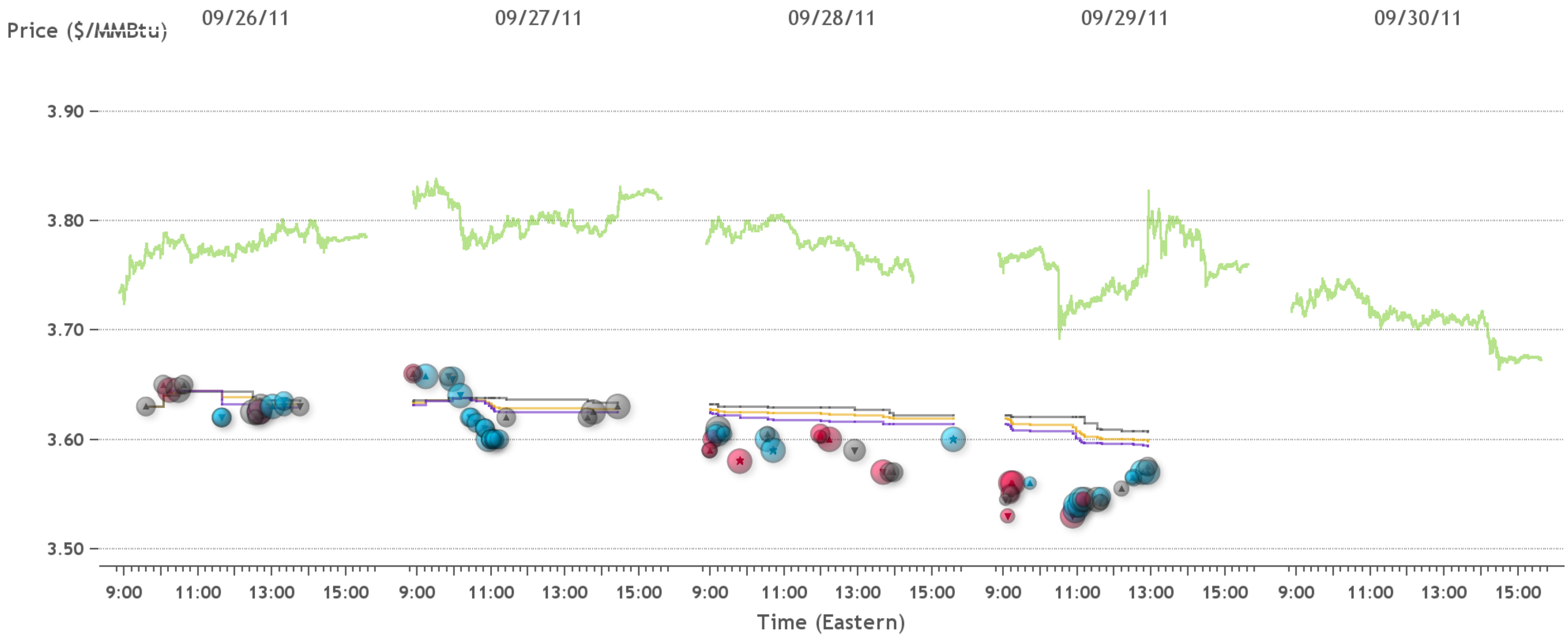



Legend:
Non-TGPNA Trade TGPNA Buy TGPNA Sale
▼ ICE Consummated Bid ▲ ICE Consummated Offer ★ TGPNA Off-ICE Trade
ICE VWAP TGPNA ICE VWAP Non-TGPNA ICE VWAP Nymex
Note: The circle size reflects the relative trade size.

TGPNA's ICE Buy Volume Share: 9.1%
TGPNA's ICE Sale Volume Share: 59.9%
TGPNA's Final VWAP (ICE and Off-ICE): $3.798
Non-TGPNA Final ICE VWAP: $3.819
IFERC Print: $3.80

**Data Sources: ICE, TGPNA, and IFERC**

## Physical Fixed-Price Trades at Permian Basin during Bidweek for October 2011

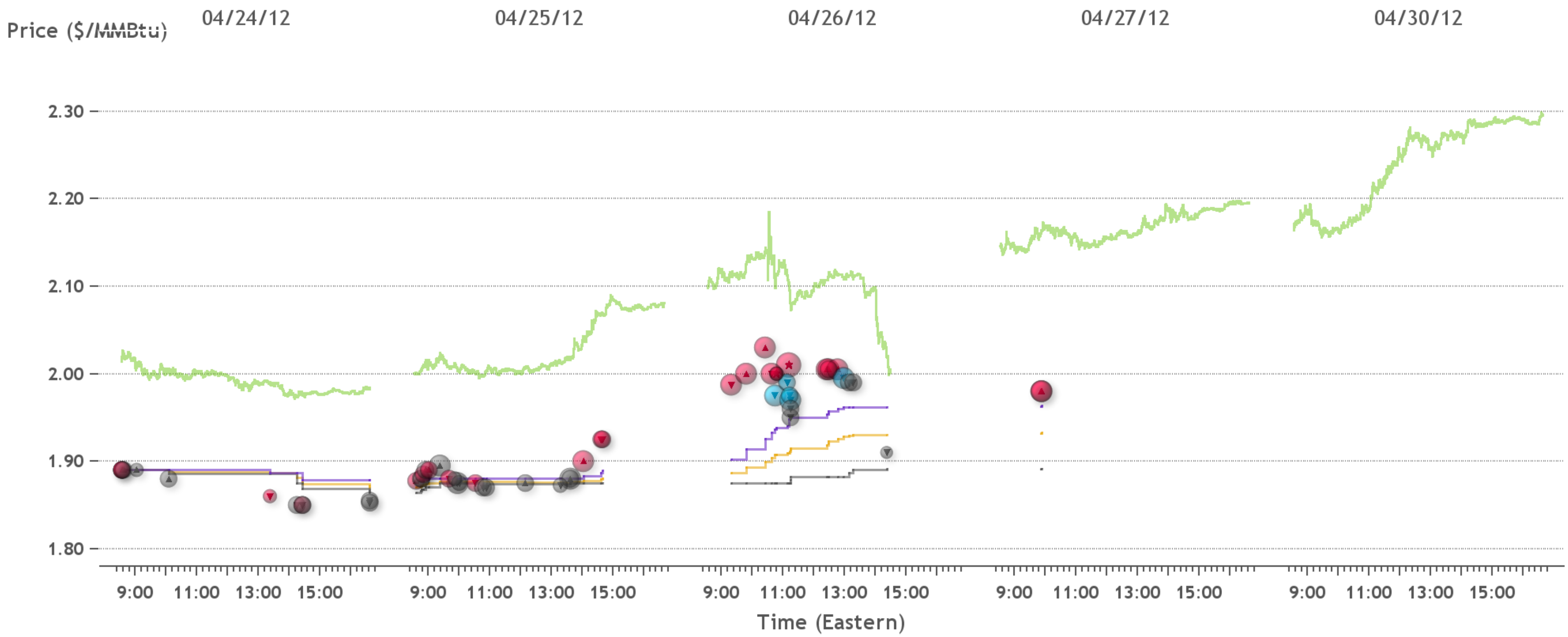



Legend:
● Non-TGPNA Trade ● TGPNA Buy ● TGPNA Sale
▼ ICE Consummated Bid ▲ ICE Consummated Offer ★ TGPNA Off-ICE Trade
ICE VWAP — TGPNA ICE VWAP — Non-TGPNA ICE VWAP — Nymex
Note: The circle size reflects the relative trade size.

TGPNA's ICE Buy Volume Share: 20.5%
TGPNA's ICE Sale Volume Share: 47.1%
TGPNA's Final VWAP (ICE and Off-ICE): $3.594
Non-TGPNA Final ICE VWAP: $3.607
IFERC Print: $3.60

**Data Sources: ICE, TGPNA, and IFERC**

## Physical Fixed-Price Trades at Permian Basin during Bidweek for May 2012

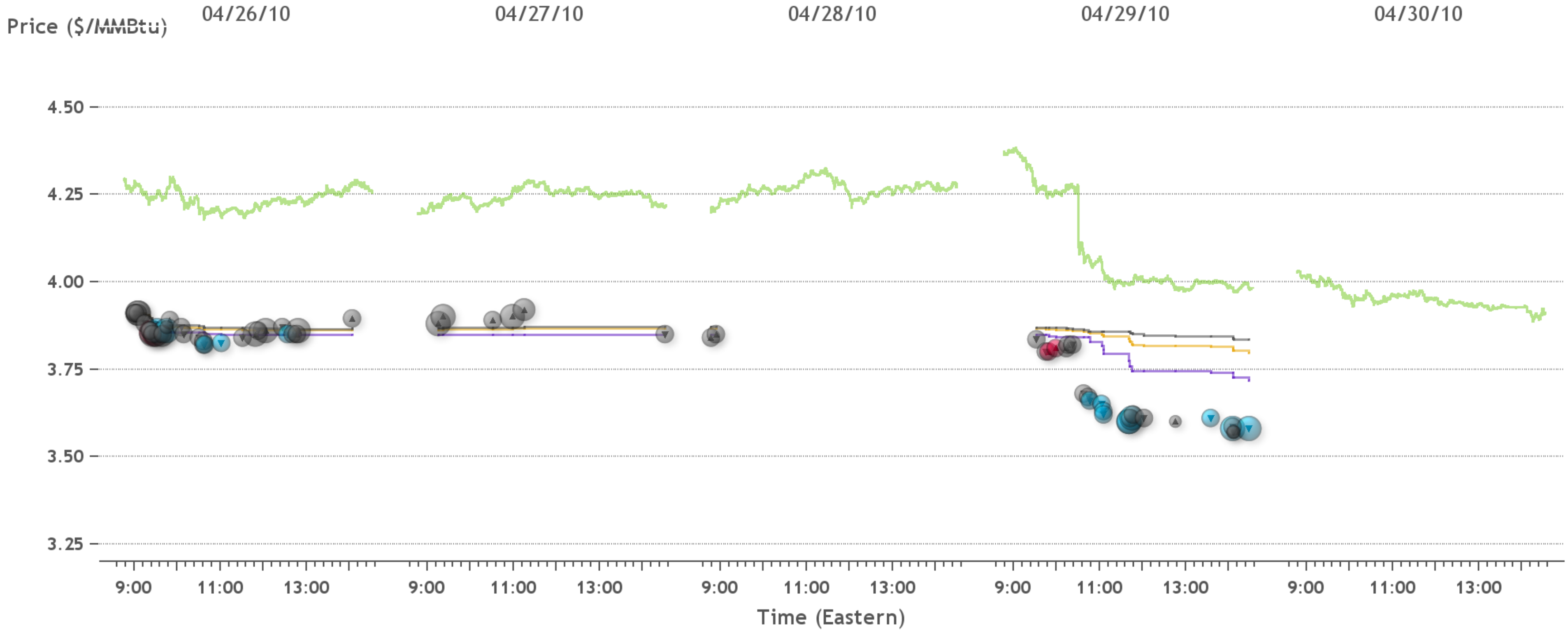



Legend:
● Non-TGPNA Trade ● TGPNA Buy ● TGPNA Sale
▼ ICE Consummated Bid ▲ ICE Consummated Offer ★ TGPNA Off-ICE Trade
ICE VWAP TGPNA ICE VWAP Non-TGPNA ICE VWAP Nymex
Note: The circle size reflects the relative trade size.

TGPNA's ICE Buy Volume Share: 49.5%
TGPNA's ICE Sale Volume Share: 12.3%
TGPNA's Final VWAP (ICE and Off-ICE): $1.964
Non-TGPNA Final ICE VWAP: $1.891
IFERC Print: $1.93

**Data Sources: ICE, TGPNA, and IFERC**

## Physical Fixed-Price Trades at SanJuan during Bidweek for May 2010

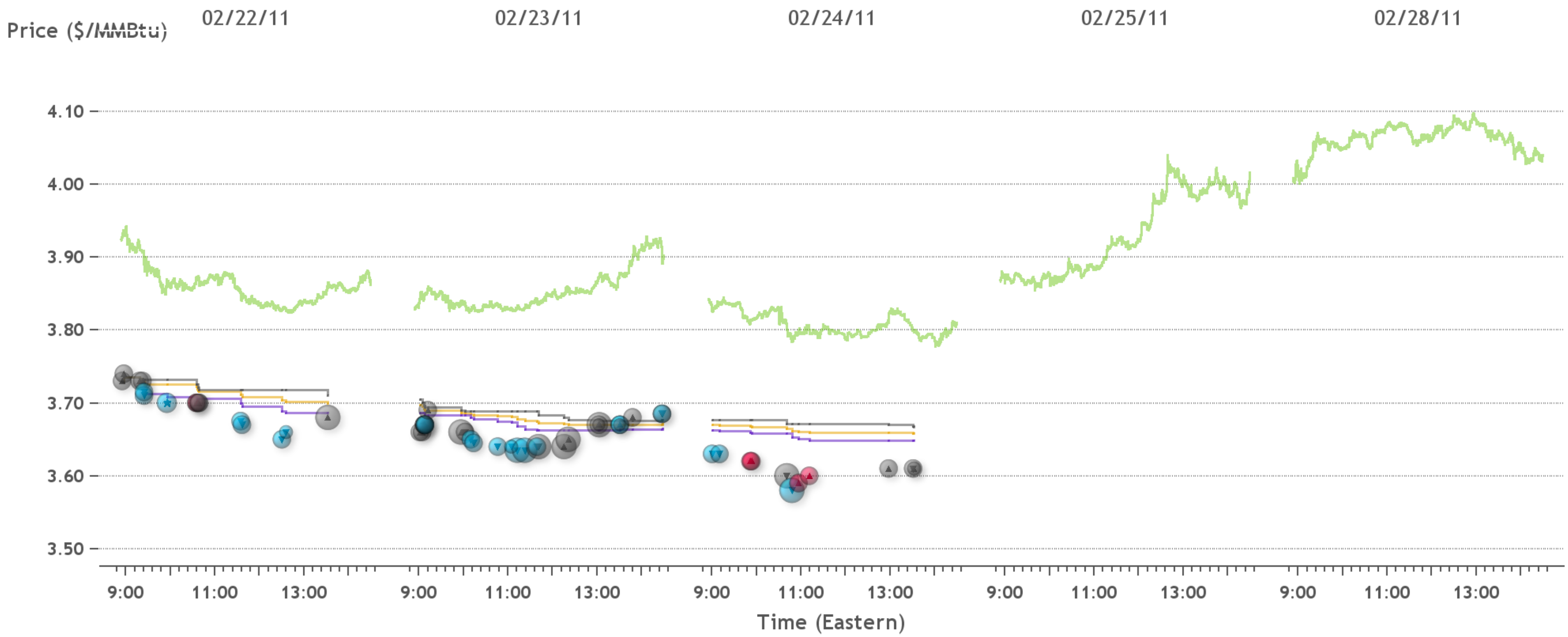



Legend:
Non-TGPNA Trade · TGPNA Buy · TGPNA Sale
▼ ICE Consummated Bid ▲ ICE Consummated Offer ★ TGPNA Off-ICE Trade
ICE VWAP — TGPNA ICE VWAP — Non-TGPNA ICE VWAP — Nymex
Note: The circle size reflects the relative trade size.

TGPNA's ICE Buy Volume Share: 6.8%
TGPNA's ICE Sale Volume Share: 24.8%
TGPNA's Final VWAP (ICE and Off-ICE): $3.717
Non-TGPNA Final ICE VWAP: $3.835
IFERC Print: $3.80

**Data Sources: ICE, TGPNA, and IFERC**

## Physical Fixed-Price Trades at SanJuan during Bidweek for March 2011

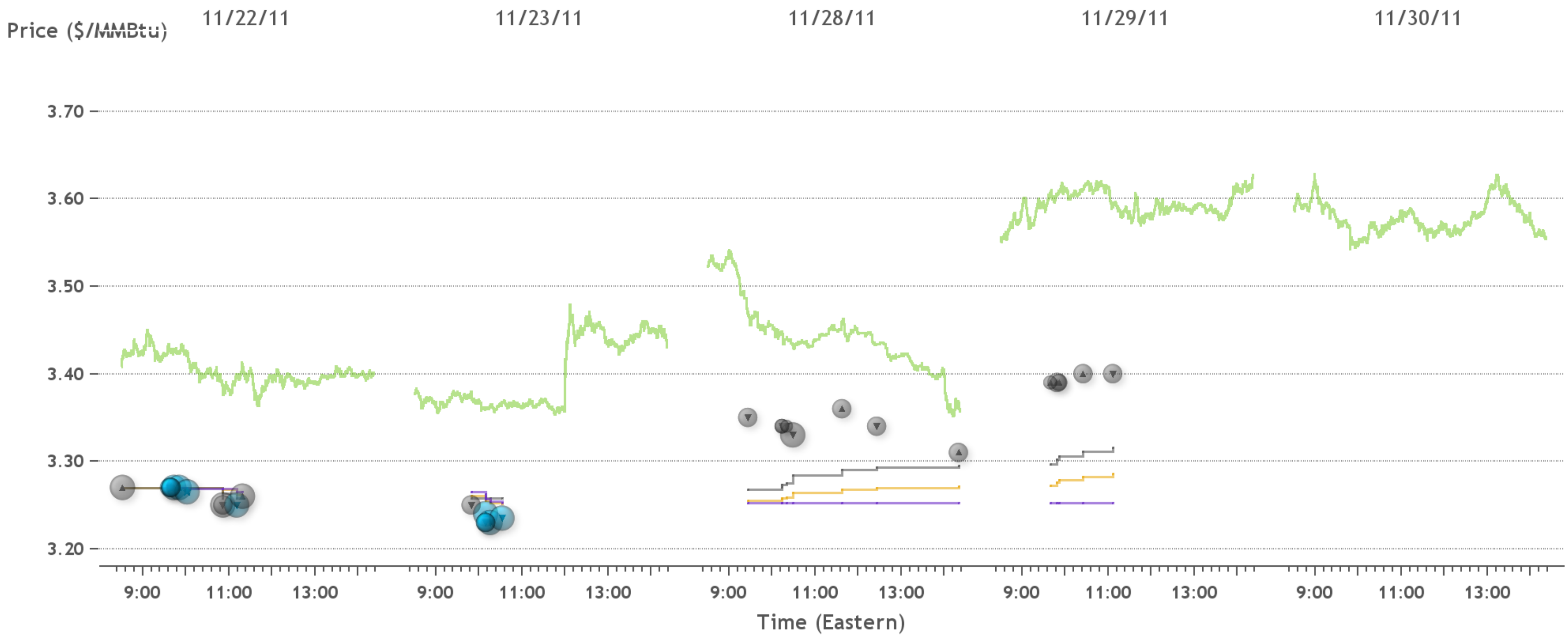



Legend:
● Non-TGPNA Trade ● TGPNA Sale ● TGPNA Buy
▼ ICE Consummated Bid ▲ ICE Consummated Offer ★ TGPNA Off-ICE Trade
ICE VWAP — TGPNA ICE VWAP — Non-TGPNA ICE VWAP — Nymex
Note: The circle size reflects the relative trade size.

TGPNA's ICE Buy Volume Share: 8.0%
TGPNA's ICE Sale Volume Share: 36.9%
TGPNA's Final VWAP (ICE and Off-ICE): $3.649
Non-TGPNA Final ICE VWAP: $3.667
IFERC Print: $3.66

**Data Sources: ICE, TGPNA, and IFERC**

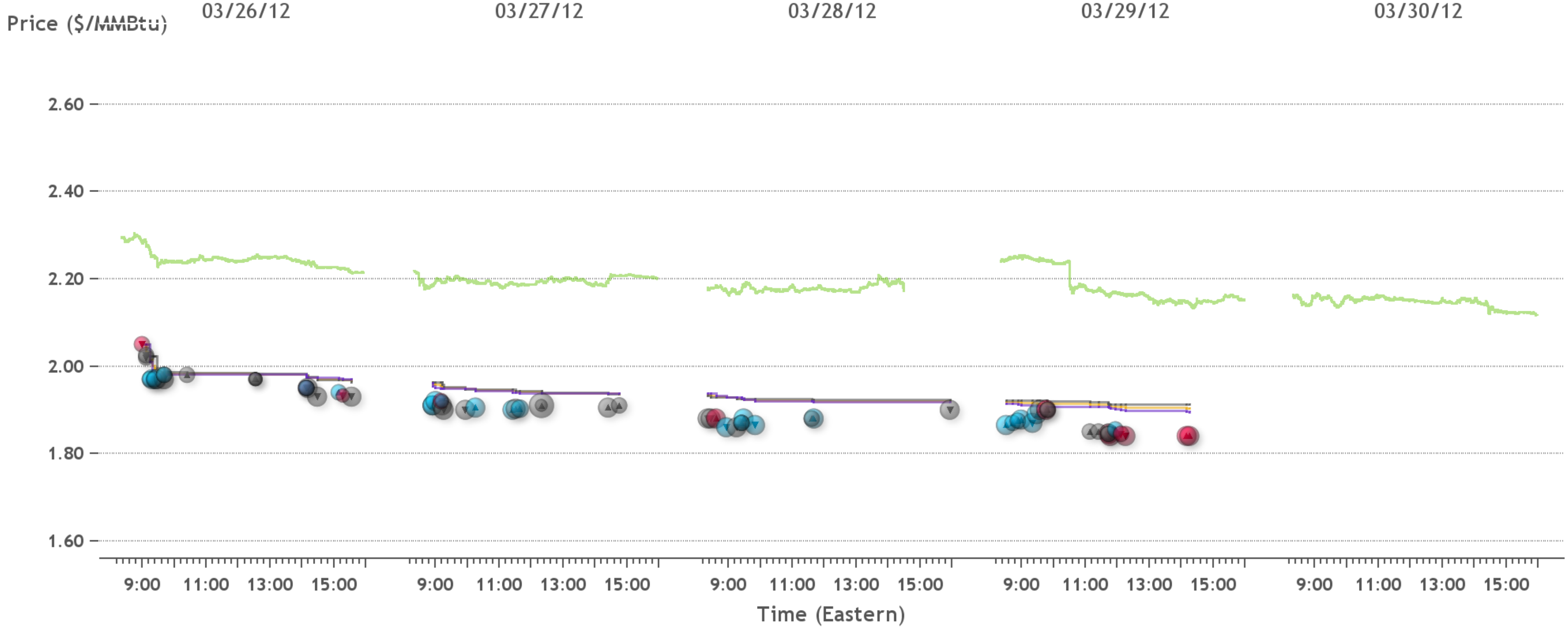
## Physical Fixed-Price Trades at SanJuan during Bidweek for December 2011




Legend:
Non-TGPNA Trade TGPNA Sale
▼ ICE Consummated Bid ▲ ICE Consummated Offer ★ TGPNA Off-ICE Trade
ICE VWAP TGPNA ICE VWAP Non-TGPNA ICE VWAP Nymex
Note: The circle size reflects the relative trade size.

TGPNA's ICE Buy Volume Share: 0.0%
TGPNA's ICE Sale Volume Share: 44.1%
TGPNA's Final VWAP (ICE and Off-ICE): $3.252
Non-TGPNA Final ICE VWAP: $3.316
IFERC Print: $3.28
**Data Sources: ICE, TGPNA, and IFERC**

Physical Fixed-Price Trades at SanJuan during Bidweek for April 2012

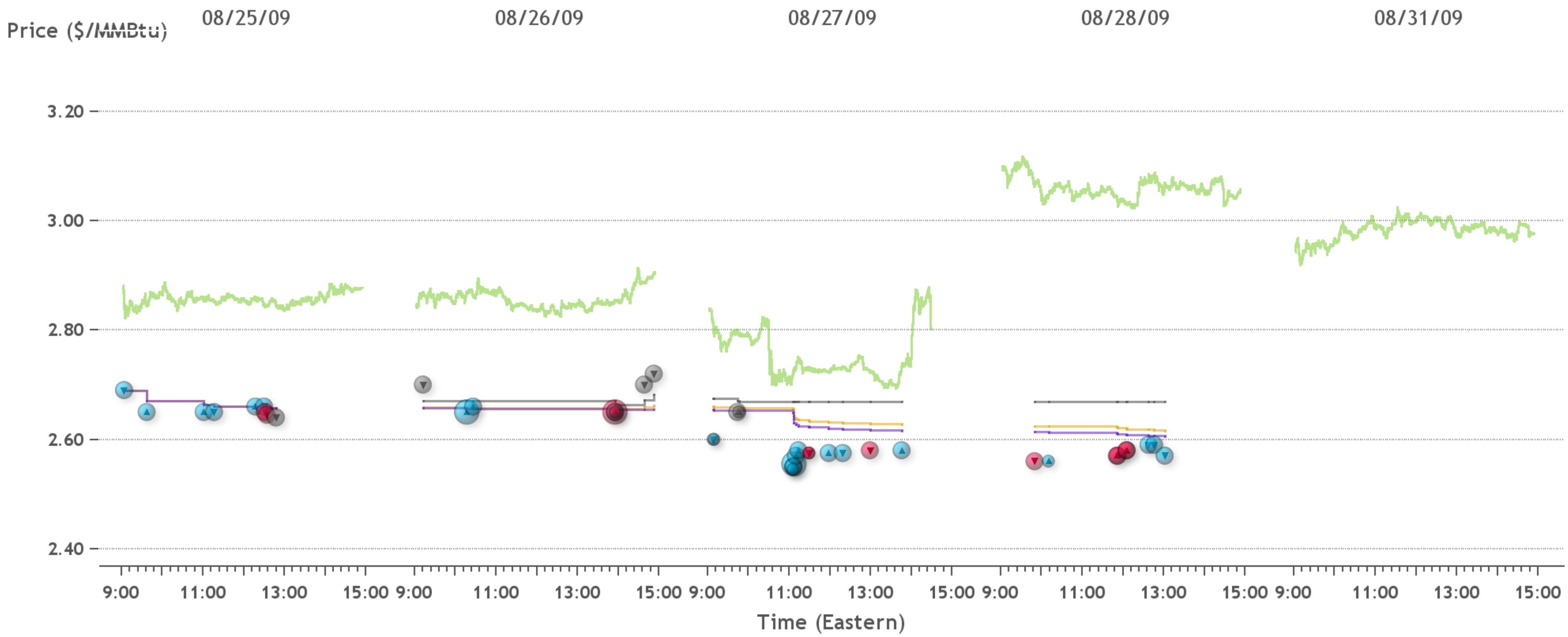



Legend:
Non-TGPNA Trade, TGPNA Buy, TGPNA Sale
▼ ICE Consummated Bid ▲ ICE Consummated Offer ★ TGPNA Off-ICE Trade
ICE VWAP, TGPNA ICE VWAP, Non-TGPNA ICE VWAP, Nymex
Note: The circle size reflects the relative trade size.

TGPNA's ICE Buy Volume Share: 16.8%
TGPNA's ICE Sale Volume Share: 37.3%
TGPNA's Final VWAP (ICE and Off-ICE): $1.895
Non-TGPNA Final ICE VWAP: $1.913
IFERC Print: $1.90

**Data Sources: ICE, TGPNA, and IFERC**

## Physical Fixed-Price Trades at SoCal during Bidweek for September 2009

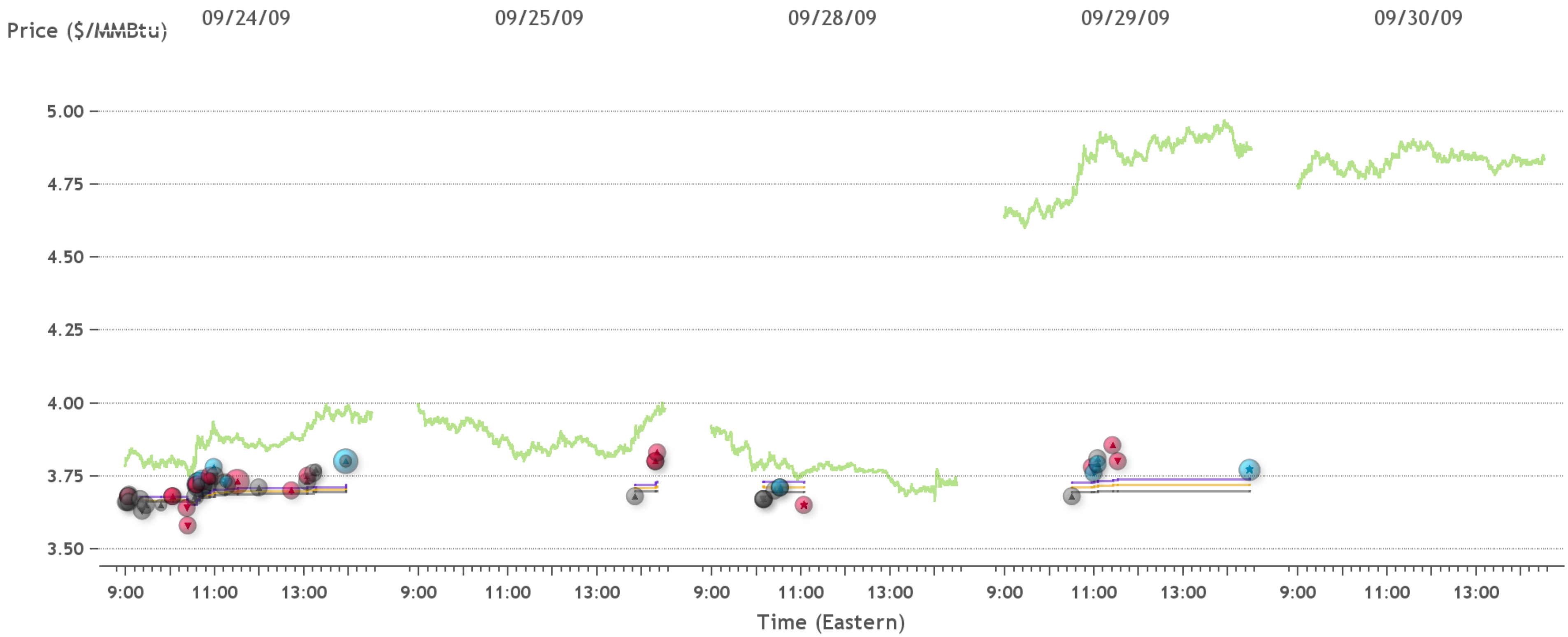



Legend:
Non-TGPNA Trade · TGPNA Sale · TGPNA Buy
▾ ICE Consummated Bid ▴ ICE Consummated Offer ★ TGPNA Off-ICE Trade
ICE VWAP · TGPNA ICE VWAP · Non-TGPNA ICE VWAP · Nymex
Note: The circle size reflects the relative trade size.

TGPNA's ICE Buy Volume Share: 29.8%
TGPNA's ICE Sale Volume Share: 53.6%
TGPNA's Final VWAP (ICE and Off-ICE): $2.606
Non-TGPNA Final ICE VWAP: $2.669
NGI Print: $2.62

**Data Sources: ICE, TGPNA, and NGI**

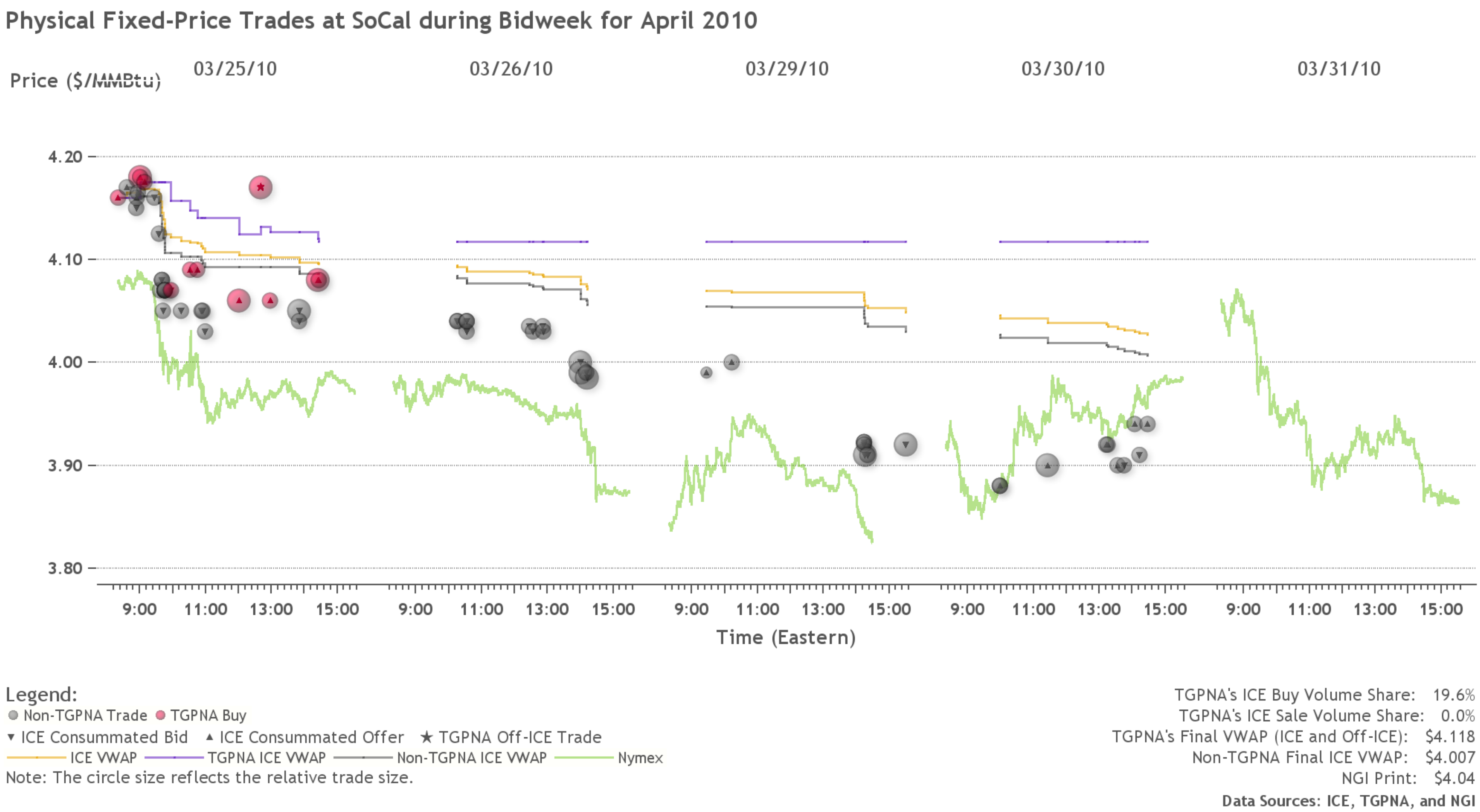
## Physical Fixed-Price Trades at SoCal during Bidweek for October 2009




Legend:
Non-TGPNA Trade TGPNA Buy TGPNA Sale
▼ ICE Consummated Bid ▲ ICE Consummated Offer ★ TGPNA Off-ICE Trade
ICE VWAP TGPNA ICE VWAP Non-TGPNA ICE VWAP Nymex
Note: The circle size reflects the relative trade size.

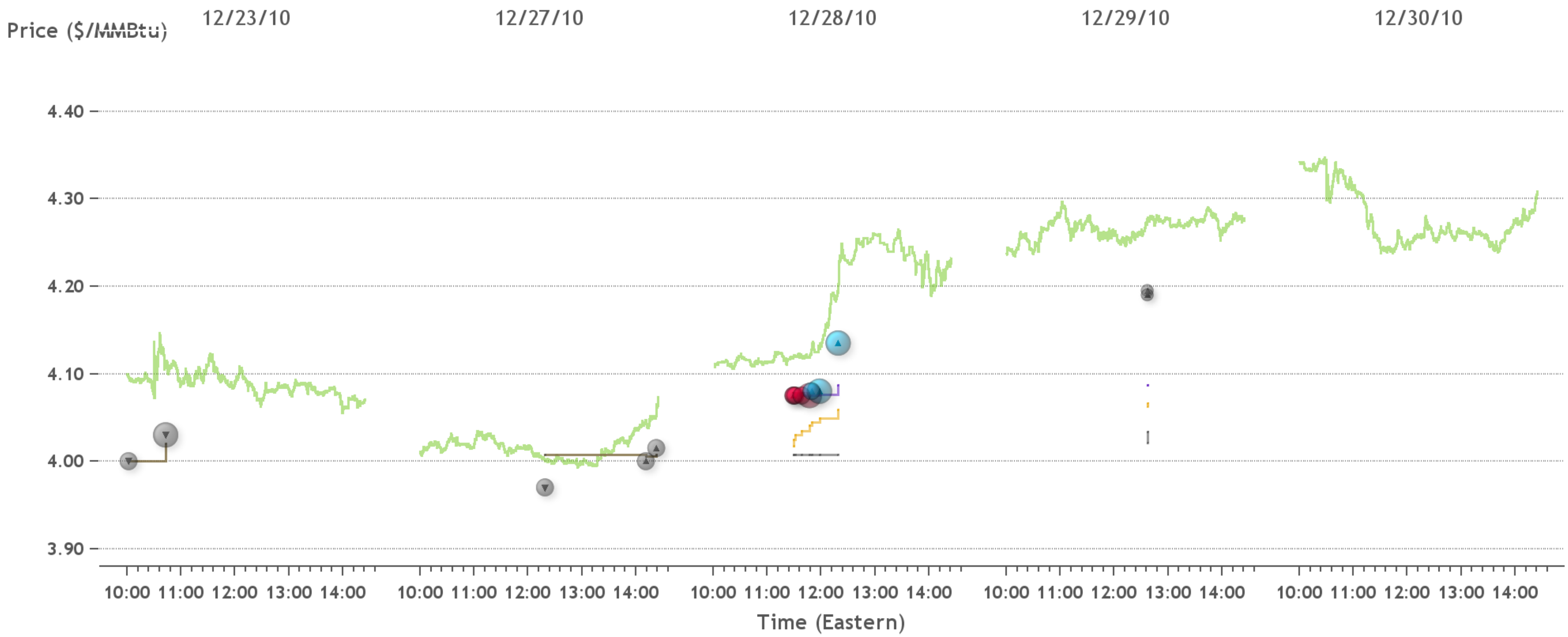
TGPNA's ICE Buy Volume Share: 33.9%
TGPNA's ICE Sale Volume Share: 16.5%
TGPNA's Final VWAP (ICE and Off-ICE): $3.740
Non-TGPNA Final ICE VWAP: $3.699
NGI Print: $3.72

**Data Sources: ICE, TGPNA, and NGI**



Physical Fixed-Price Trades at SoCal during Bidweek for April 2010
Price ($/MMBtu)
03/25/10
03/26/10
03/29/10
03/30/10
03/31/10
4.20
4.10
4.00
3.90
3.80
9:00
11:00
13:00
15:00
Time (Eastern)
Legend:
Non-TGPNA Trade
TGPNA Buy
ICE Consummated Bid
ICE Consummated Offer
TGPNA Off-ICE Trade
ICE VWAP
TGPNA ICE VWAP
Non-TGPNA ICE VWAP
Nymex
Note: The circle size reflects the relative trade size.
TGPNA's ICE Buy Volume Share: 19.6%
TGPNA's ICE Sale Volume Share: 0.0%
TGPNA's Final VWAP (ICE and Off-ICE): $4.118
Non-TGPNA Final ICE VWAP: $4.007
NGI Print: $4.04
Data Sources: ICE, TGPNA, and NGI

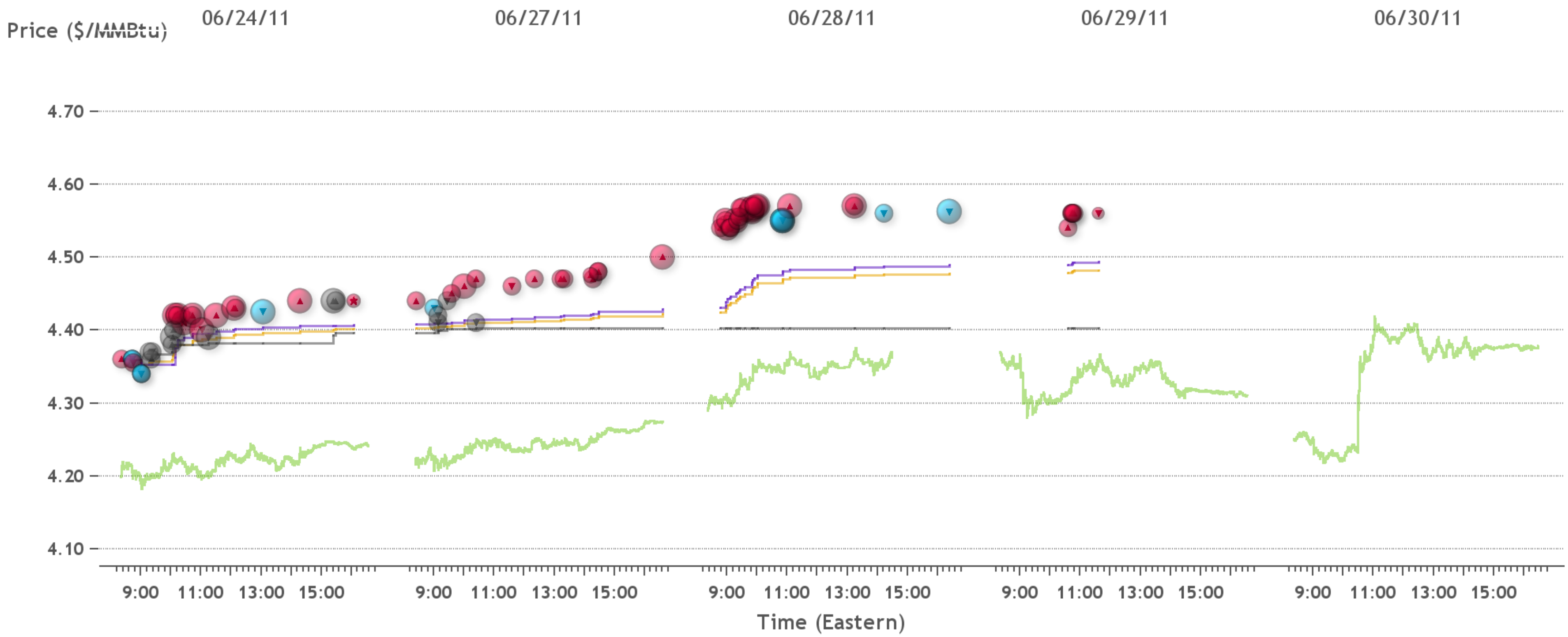
## Physical Fixed-Price Trades at SoCal during Bidweek for January 2011




Legend:
● Non-TGPNA Trade ● TGPNA Buy ● TGPNA Sale
▼ ICE Consummated Bid ▲ ICE Consummated Offer ★ TGPNA Off-ICE Trade
ICE VWAP — TGPNA ICE VWAP — Non-TGPNA ICE VWAP — Nymex
Note: The circle size reflects the relative trade size.

TGPNA's ICE Buy Volume Share: 33.3%
TGPNA's ICE Sale Volume Share: 27.8%
TGPNA's Final VWAP (ICE and Off-ICE): $4.087
Non-TGPNA Final ICE VWAP: $4.034
NGI Print: $4.05
**Data Sources: ICE, TGPNA, and NGI**

## Physical Fixed-Price Trades at SoCal during Bidweek for July 2011

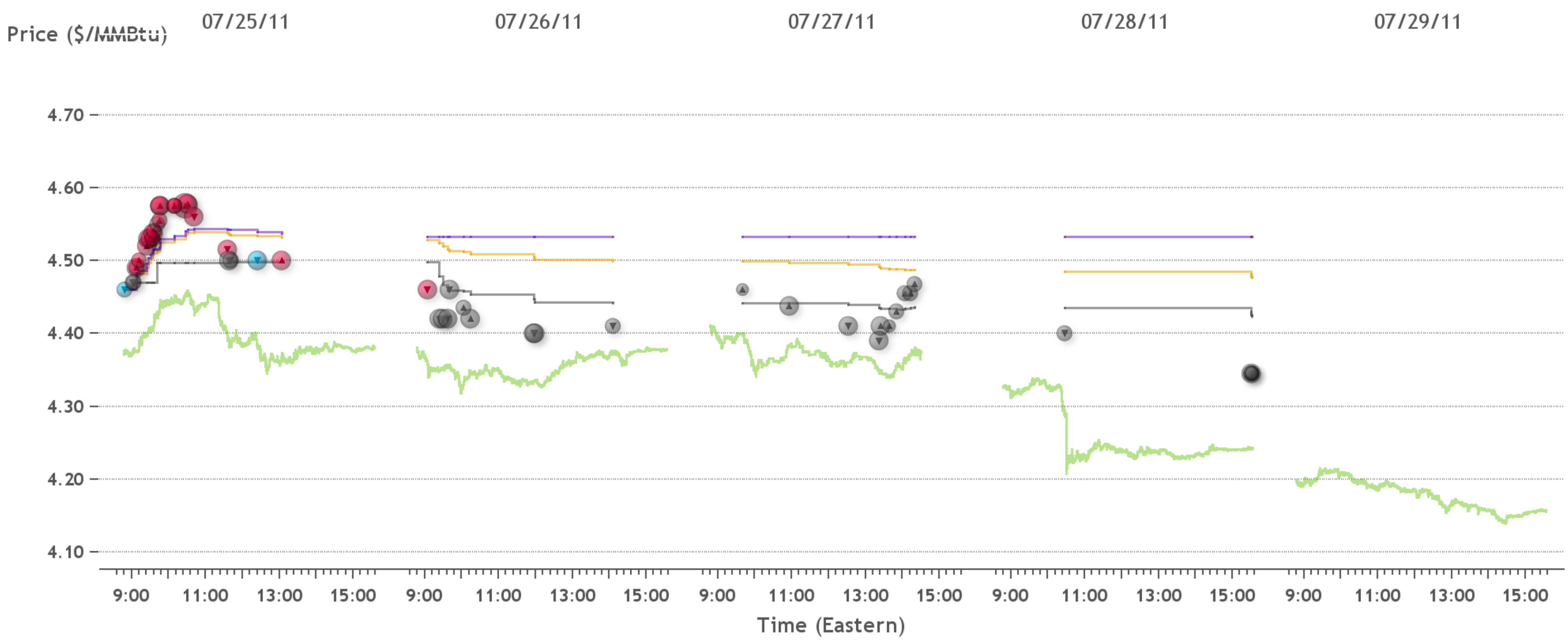



Legend:
● Non-TGPNA Trade ● TGPNA Buy ● TGPNA Sale
▼ ICE Consummated Bid ▲ ICE Consummated Offer ★ TGPNA Off-ICE Trade
ICE VWAP — TGPNA ICE VWAP — Non-TGPNA ICE VWAP — Nymex
Note: The circle size reflects the relative trade size.

TGPNA's ICE Buy Volume Share: 68.5%
TGPNA's ICE Sale Volume Share: 15.5%
TGPNA's Final VWAP (ICE and Off-ICE): $4.493
Non-TGPNA Final ICE VWAP: $4.403
NGI Print: $4.48

**Data Sources: ICE, TGPNA, and NGI**

## Physical Fixed-Price Trades at SoCal during Bidweek for August 2011

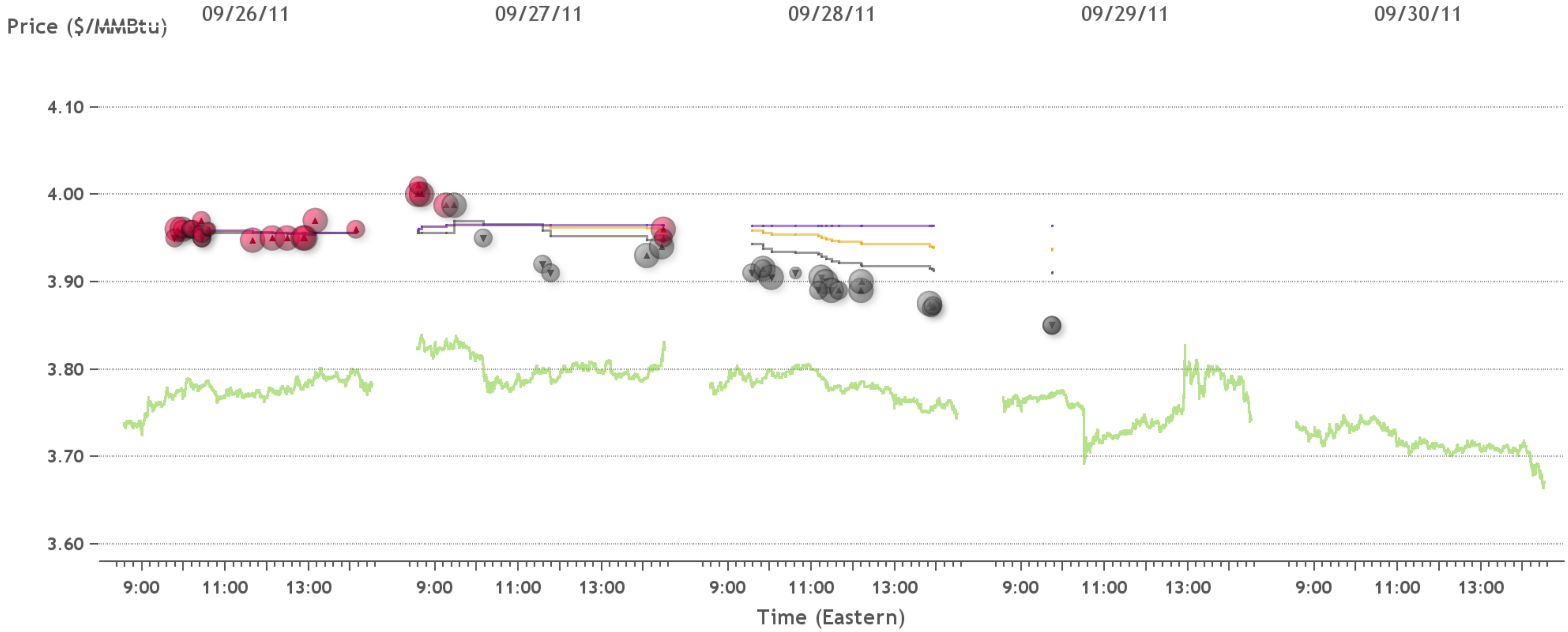



Legend:
● Non-TGPNA Trade ● TGPNA Sale ● TGPNA Buy
▼ ICE Consummated Bid ▲ ICE Consummated Offer ★ TGPNA Off-ICE Trade
ICE VWAP — TGPNA ICE VWAP — Non-TGPNA ICE VWAP — Nymex
Note: The circle size reflects the relative trade size.

TGPNA's ICE Buy Volume Share: 44.5%
TGPNA's ICE Sale Volume Share: 3.8%
TGPNA's Final VWAP (ICE and Off-ICE): $4.533
Non-TGPNA Final ICE VWAP: $4.424
NGI Print: $4.47

**Data Sources: ICE, TGPNA, and NGI**

## Physical Fixed-Price Trades at SoCal during Bidweek for October 2011

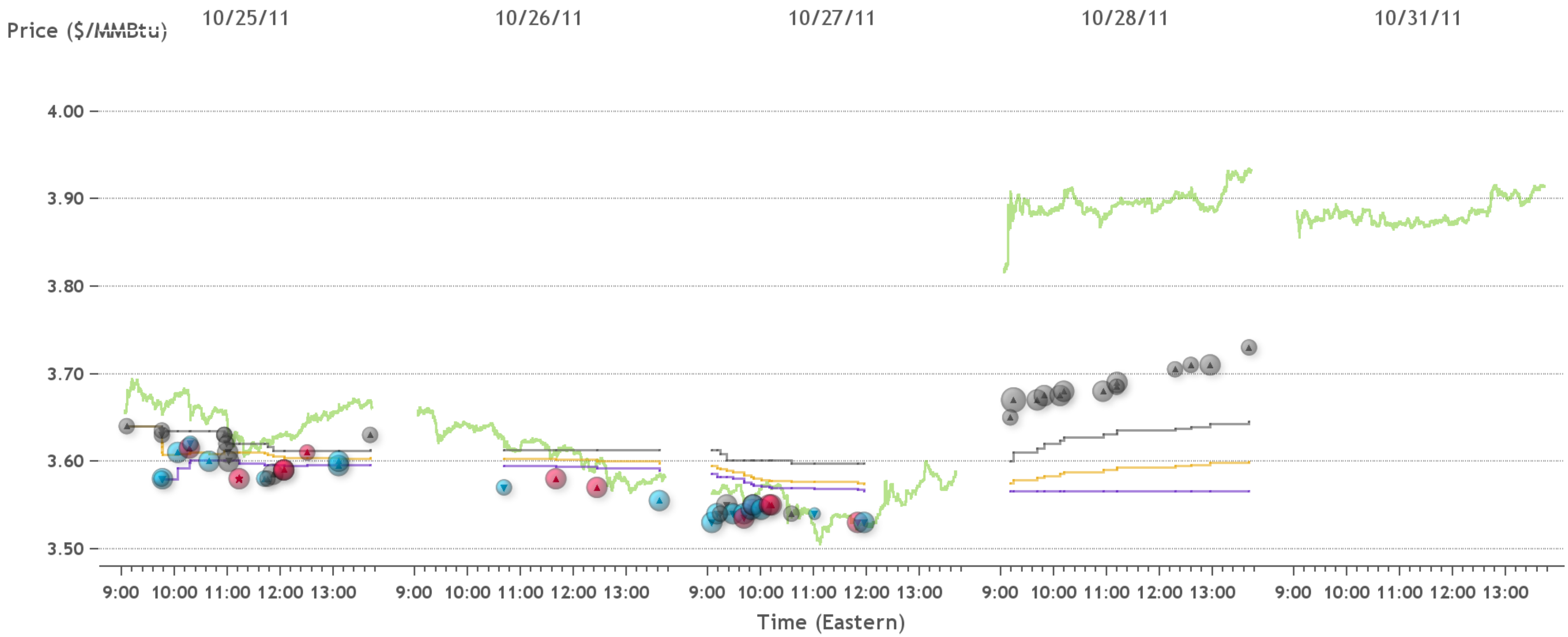



Legend:
● Non-TGPNA Trade ● TGPNA Buy
▼ ICE Consummated Bid ▲ ICE Consummated Offer ★ TGPNA Off-ICE Trade
ICE VWAP — TGPNA ICE VWAP — Non-TGPNA ICE VWAP — Nymex
Note: The circle size reflects the relative trade size.

TGPNA's ICE Buy Volume Share: 49.0%
TGPNA's ICE Sale Volume Share: 0.0%
TGPNA's Final VWAP (ICE and Off-ICE): $3.964
Non-TGPNA Final ICE VWAP: $3.910
NGI Print: $3.94

**Data Sources: ICE, TGPNA, and NGI**

## Physical Fixed-Price Trades at SoCal during Bidweek for November 2011

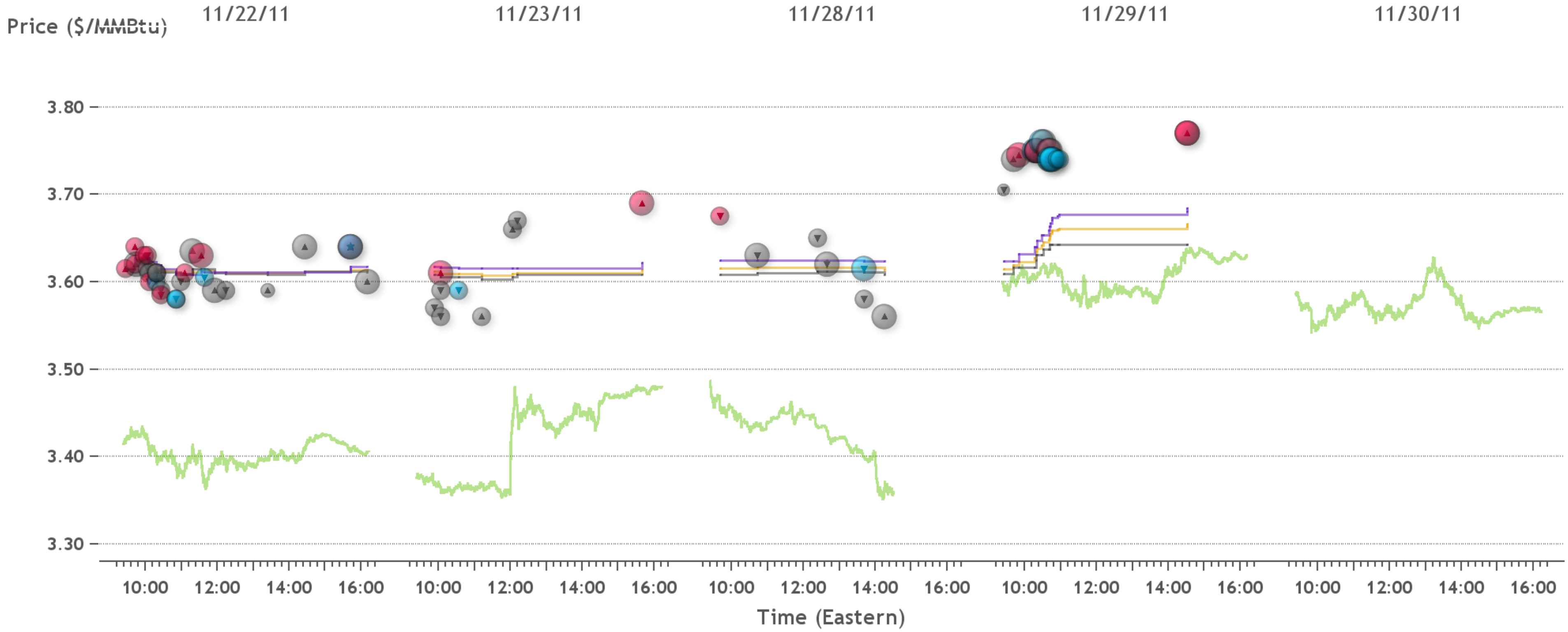



Legend:
● Non-TGPNA Trade ● TGPNA Sale ● TGPNA Buy
▼ ICE Consummated Bid ▲ ICE Consummated Offer ★ TGPNA Off-ICE Trade
ICE VWAP   TGPNA ICE VWAP   Non-TGPNA ICE VWAP   Nymex
Note: The circle size reflects the relative trade size.

TGPNA's ICE Buy Volume Share: 22.5%
TGPNA's ICE Sale Volume Share: 34.7%
TGPNA's Final VWAP (ICE and Off-ICE): $3.566
Non-TGPNA Final ICE VWAP: $3.645
NGI Print: $3.60

**Data Sources: ICE, TGPNA, and NGI**

## Physical Fixed-Price Trades at SoCal during Bidweek for December 2011




Legend:

● Non-TGPNA Trade ● TGPNA Buy ● TGPNA Sale

▼ ICE Consummated Bid ▲ ICE Consummated Offer ★ TGPNA Off-ICE Trade

ICE VWAP — TGPNA ICE VWAP — Non-TGPNA ICE VWAP — Nymex

Note: The circle size reflects the relative trade size.

TGPNA's ICE Buy Volume Share: 30.1%

TGPNA's ICE Sale Volume Share: 23.4%

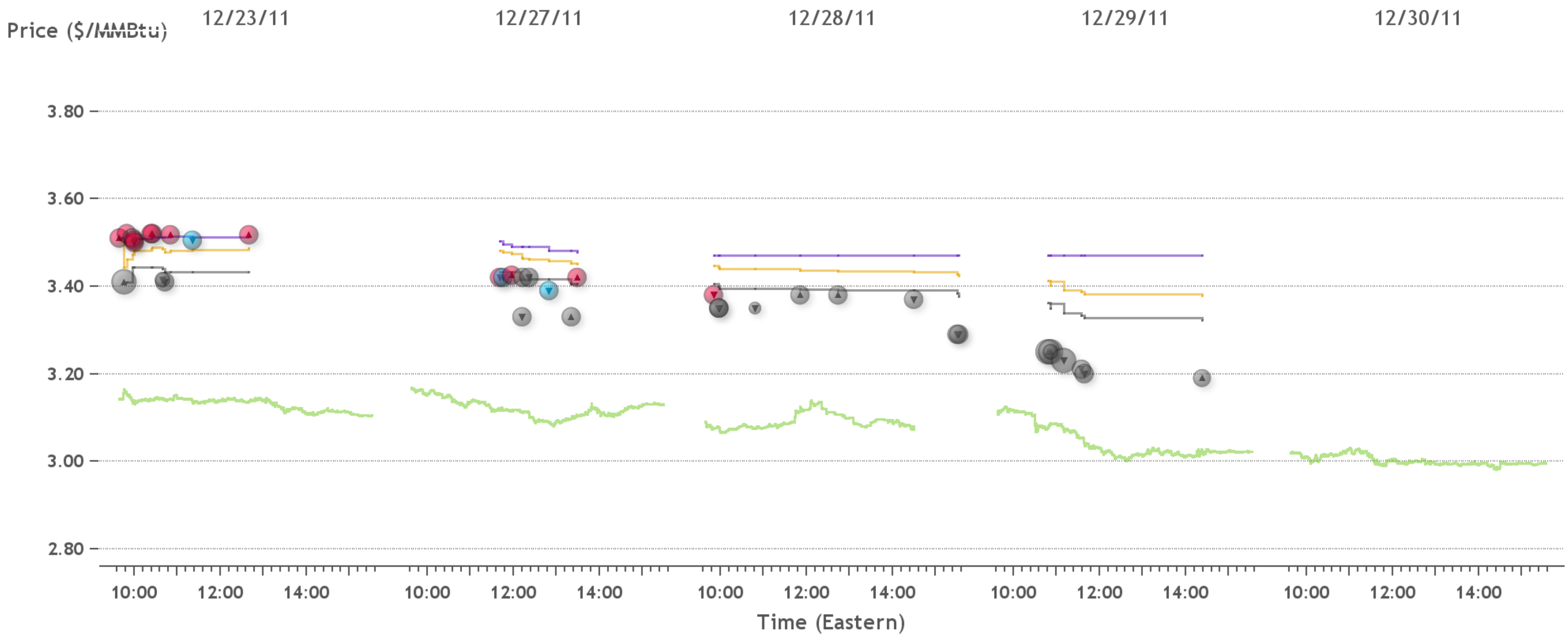
TGPNA's Final VWAP (ICE and Off-ICE): $3.684

Non-TGPNA Final ICE VWAP: $3.643

NGI Print: $3.67

**Data Sources: ICE, TGPNA, and NGI**

## Physical Fixed-Price Trades at SoCal during Bidweek for January 2012



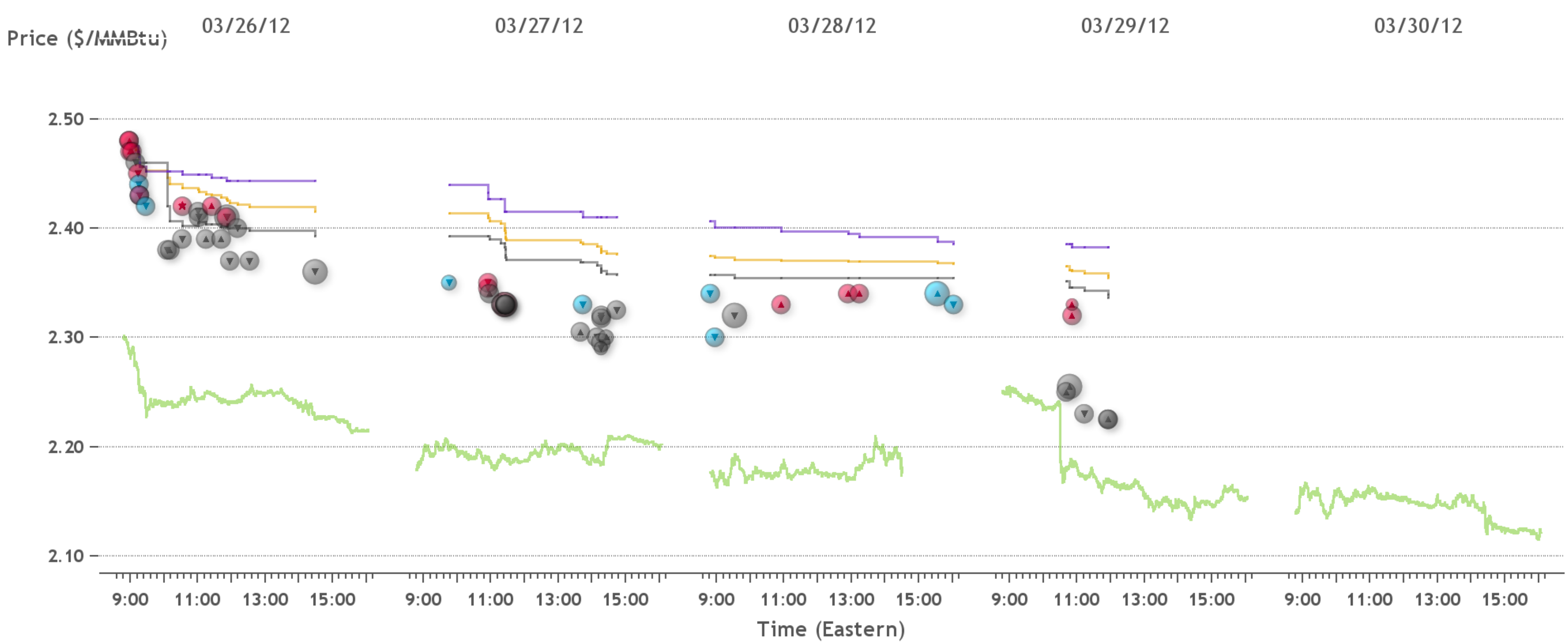

Legend:
- Non-TGPNA Trade ● TGPNA Buy ● TGPNA Sale
▼ ICE Consummated Bid ▲ ICE Consummated Offer ★ TGPNA Off-ICE Trade
ICE VWAP — TGPNA ICE VWAP — Non-TGPNA ICE VWAP — Nymex

Note: The circle size reflects the relative trade size.

TGPNA's ICE Buy Volume Share: 30.0%
TGPNA's ICE Sale Volume Share: 7.5%
TGPNA's Final VWAP (ICE and Off-ICE): $3.471
Non-TGPNA Final ICE VWAP: $3.323
NGI Print: $3.37

**Data Sources: ICE, TGPNA, and NGI**

## Physical Fixed-Price Trades at SoCal during Bidweek for April 2012

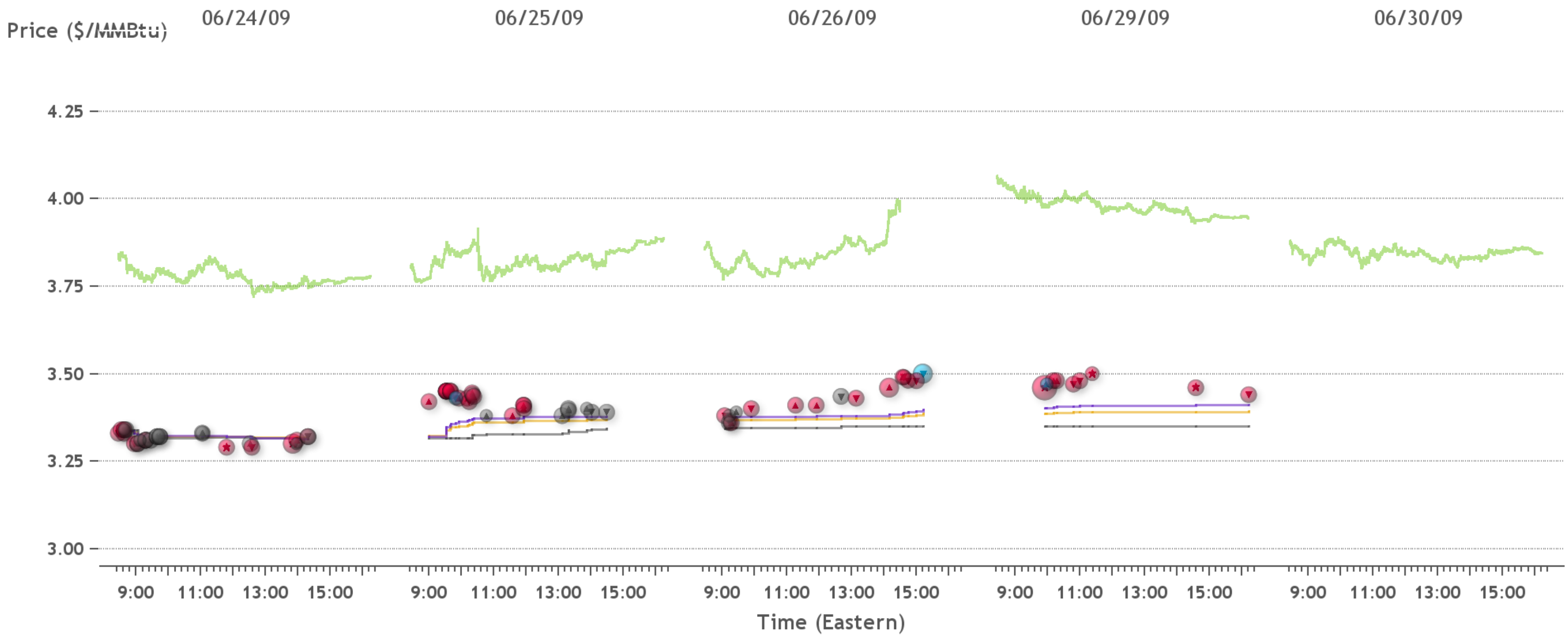



Legend:
● Non-TGPNA Trade ● TGPNA Buy ● TGPNA Sale
▼ ICE Consummated Bid ▲ ICE Consummated Offer ★ TGPNA Off-ICE Trade
ICE VWAP — TGPNA ICE VWAP — Non-TGPNA ICE VWAP — Nymex
Note: The circle size reflects the relative trade size.

TGPNA's ICE Buy Volume Share: 25.5%
TGPNA's ICE Sale Volume Share: 15.0%
TGPNA's Final VWAP (ICE and Off-ICE): $2.383
Non-TGPNA Final ICE VWAP: $2.337
NGI Print: $2.35

**Data Sources: ICE, TGPNA, and NGI**

## Physical Fixed-Price Trades at Waha during Bidweek for July 2009

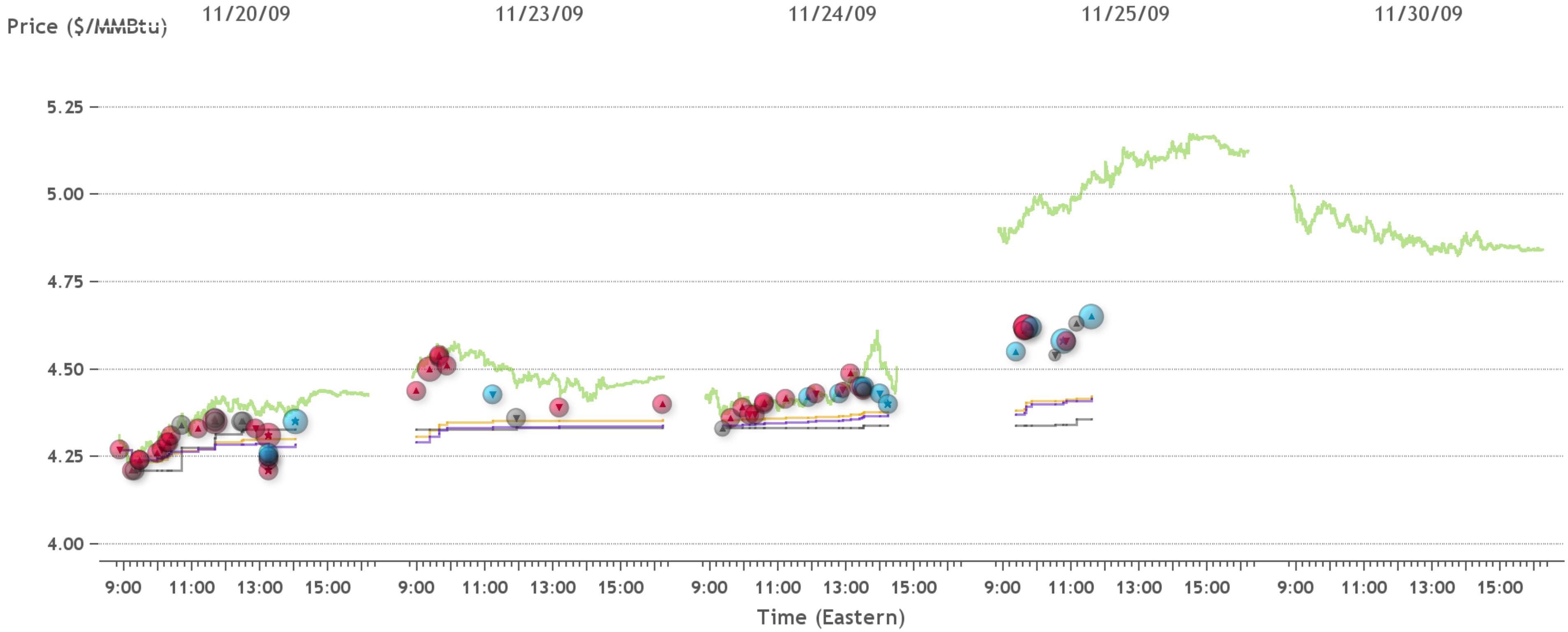



Legend:
● Non-TGPNA Trade ● TGPNA Buy ● TGPNA Sale
▼ ICE Consummated Bid ▲ ICE Consummated Offer ★ TGPNA Off-ICE Trade
ICE VWAP TGPNA ICE VWAP Non-TGPNA ICE VWAP Nymex
Note: The circle size reflects the relative trade size.

TGPNA's ICE Buy Volume Share: 64.3%
TGPNA's ICE Sale Volume Share: 3.9%
TGPNA's Final VWAP (ICE and Off-ICE): $3.411
Non-TGPNA Final ICE VWAP: $3.350
IFERC Print: $3.39

**Data Sources: ICE, TGPNA, and IFERC**

## Physical Fixed-Price Trades at Waha during Bidweek for December 2009

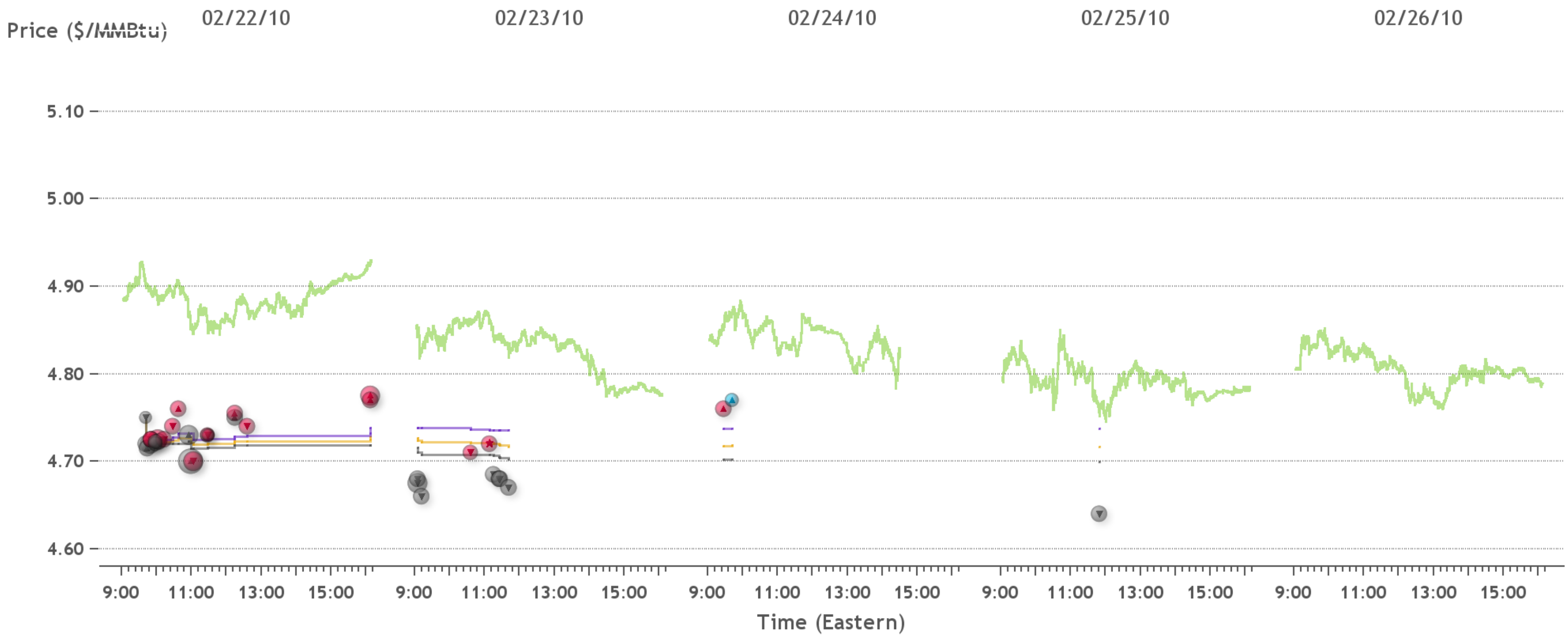



Legend:
● Non-TGPNA Trade ● TGPNA Buy ● TGPNA Sale
▼ ICE Consummated Bid ▲ ICE Consummated Offer ★ TGPNA Off-ICE Trade
ICE VWAP TGPNA ICE VWAP Non-TGPNA ICE VWAP Nymex
Note: The circle size reflects the relative trade size.

TGPNA's ICE Buy Volume Share: 67.1%
TGPNA's ICE Sale Volume Share: 17.9%
TGPNA's Final VWAP (ICE and Off-ICE): $4.416
Non-TGPNA Final ICE VWAP: $4.357
IFERC Print: $4.38

**Data Sources: ICE, TGPNA, and IFERC**

## Physical Fixed-Price Trades at Waha during Bidweek for March 2010

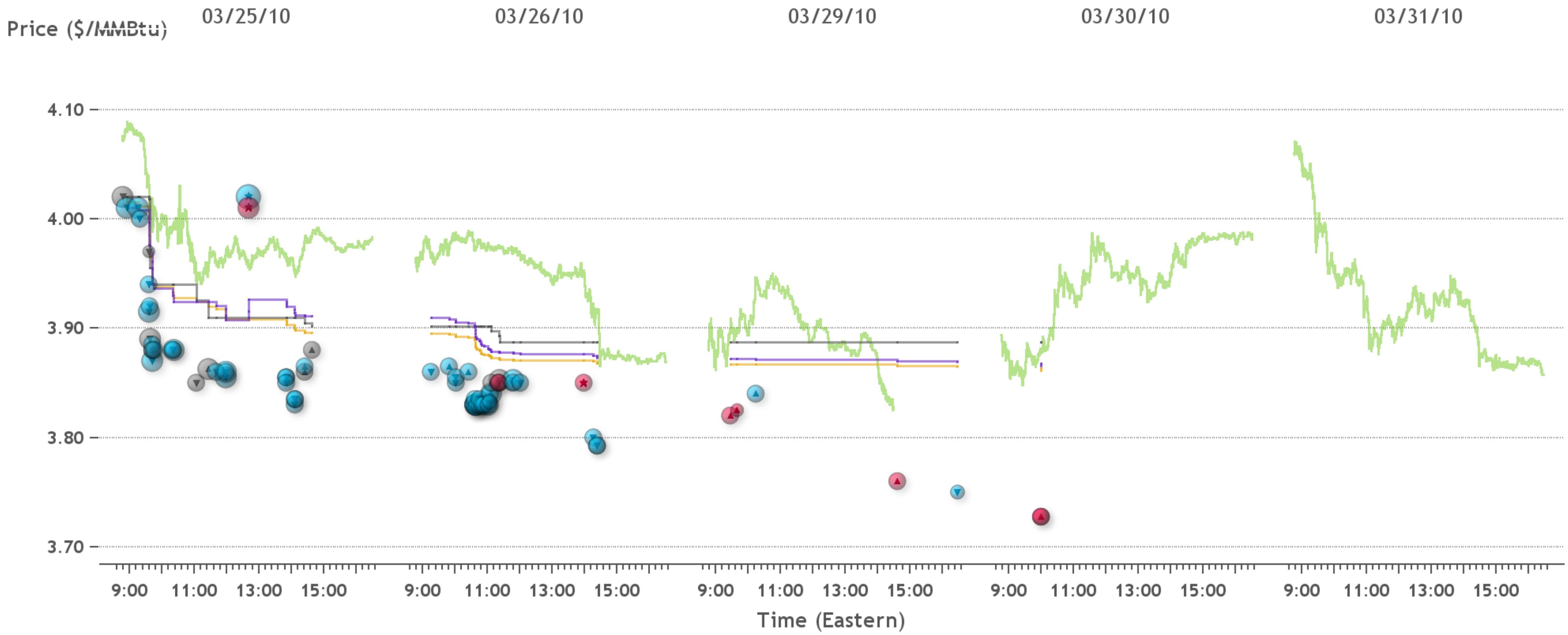



Legend:
● Non-TGPNA Trade ● TGPNA Buy ● TGPNA Sale
▼ ICE Consummated Bid ▲ ICE Consummated Offer ★ TGPNA Off-ICE Trade
ICE VWAP — TGPNA ICE VWAP — Non-TGPNA ICE VWAP — Nymex
Note: The circle size reflects the relative trade size.

TGPNA's ICE Buy Volume Share: 42.0%
TGPNA's ICE Sale Volume Share: 0.9%
TGPNA's Final VWAP (ICE and Off-ICE): $4.738
Non-TGPNA Final ICE VWAP: $4.700
IFERC Print: $4.71

**Data Sources: ICE, TGPNA, and IFERC**

## Physical Fixed-Price Trades at Waha during Bidweek for April 2010

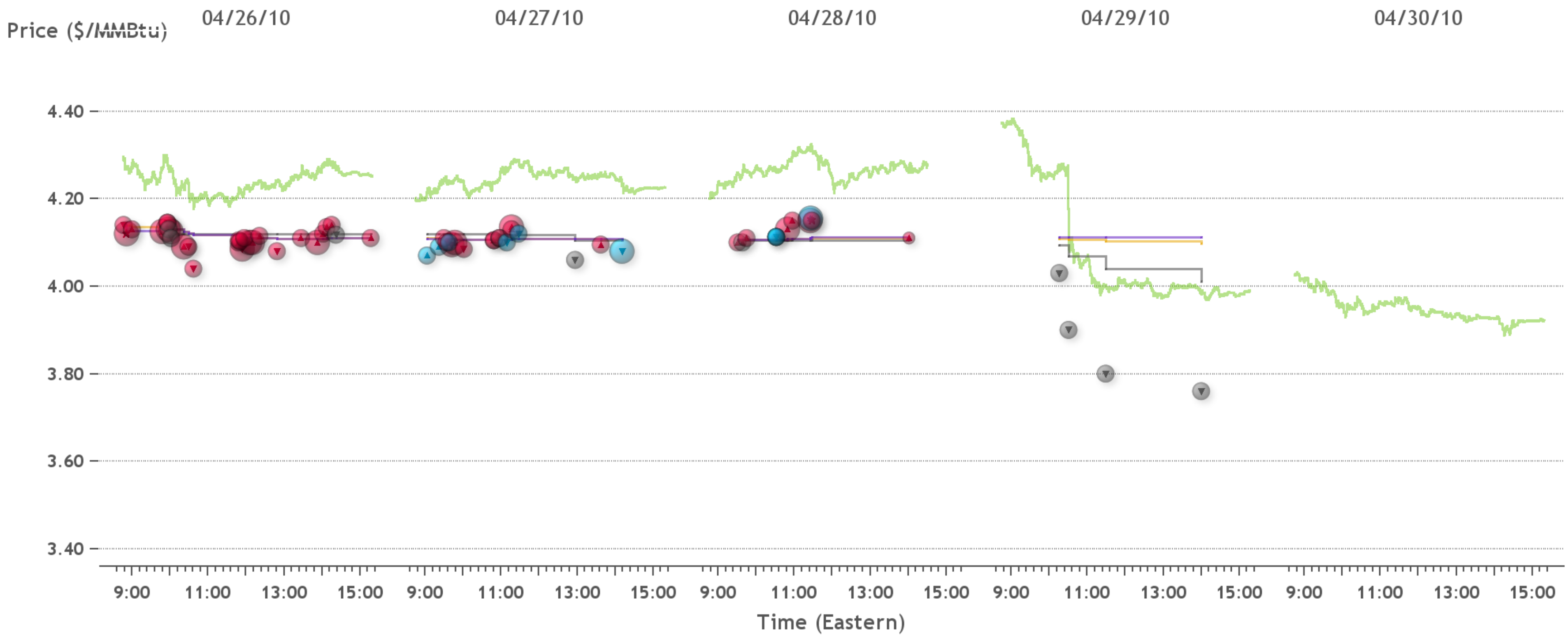



Legend:
● Non-TGPNA Trade ● TGPNA Sale ● TGPNA Buy
▼ ICE Consummated Bid ▲ ICE Consummated Offer ★ TGPNA Off-ICE Trade
ICE VWAP — TGPNA ICE VWAP — Non-TGPNA ICE VWAP — Nymex
Note: The circle size reflects the relative trade size.

TGPNA's ICE Buy Volume Share: 6.2%
TGPNA's ICE Sale Volume Share: 77.1%
TGPNA's Final VWAP (ICE and Off-ICE): $3.866
Non-TGPNA Final ICE VWAP: $3.887
IFERC Print: $3.88

**Data Sources: ICE, TGPNA, and IFERC**

## Physical Fixed-Price Trades at Waha during Bidweek for May 2010

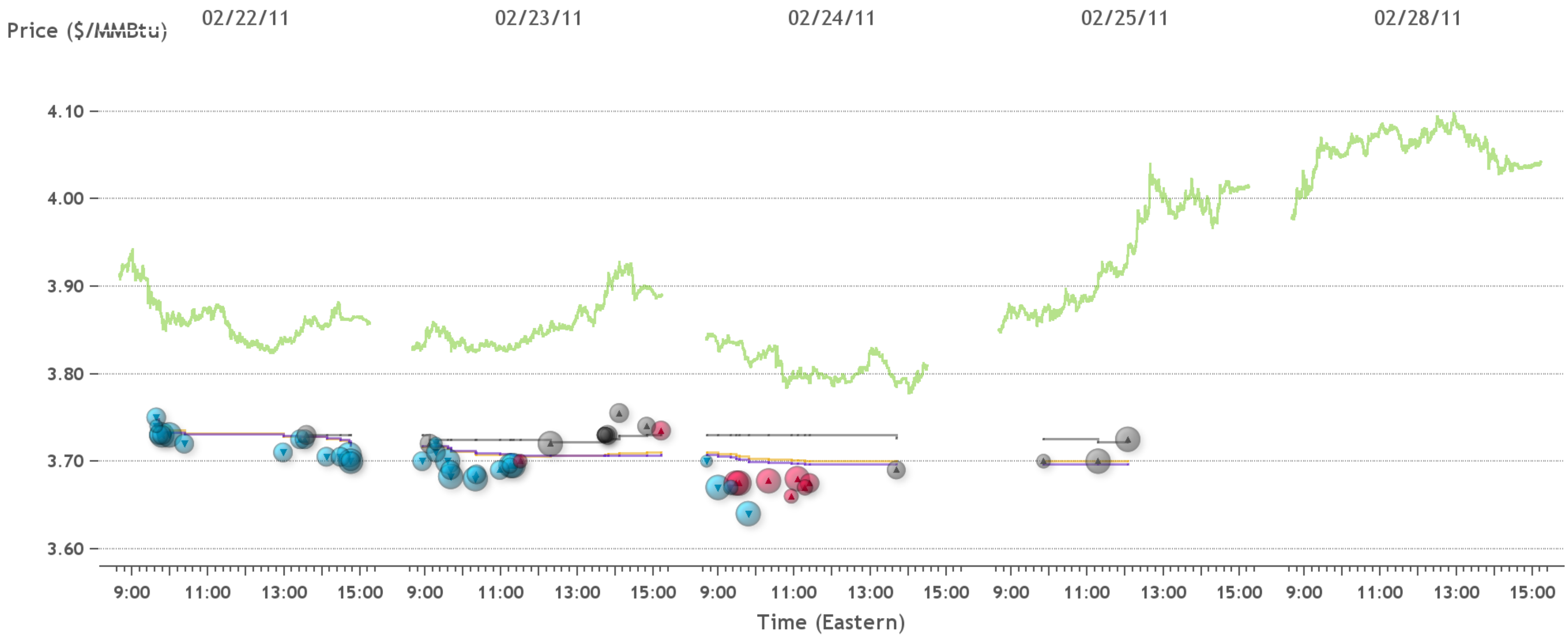



Legend:
● Non-TGPNA Trade ● TGPNA Buy ● TGPNA Sale
▼ ICE Consummated Bid ▲ ICE Consummated Offer ★ TGPNA Off-ICE Trade
ICE VWAP — TGPNA ICE VWAP — Non-TGPNA ICE VWAP — Nymex
Note: The circle size reflects the relative trade size.

TGPNA's ICE Buy Volume Share: 71.2%
TGPNA's ICE Sale Volume Share: 15.7%
TGPNA's Final VWAP (ICE and Off-ICE): $4.112
Non-TGPNA Final ICE VWAP: $4.012
IFERC Print: $4.10

**Data Sources: ICE, TGPNA, and IFERC**

## Physical Fixed-Price Trades at Waha during Bidweek for March 2011

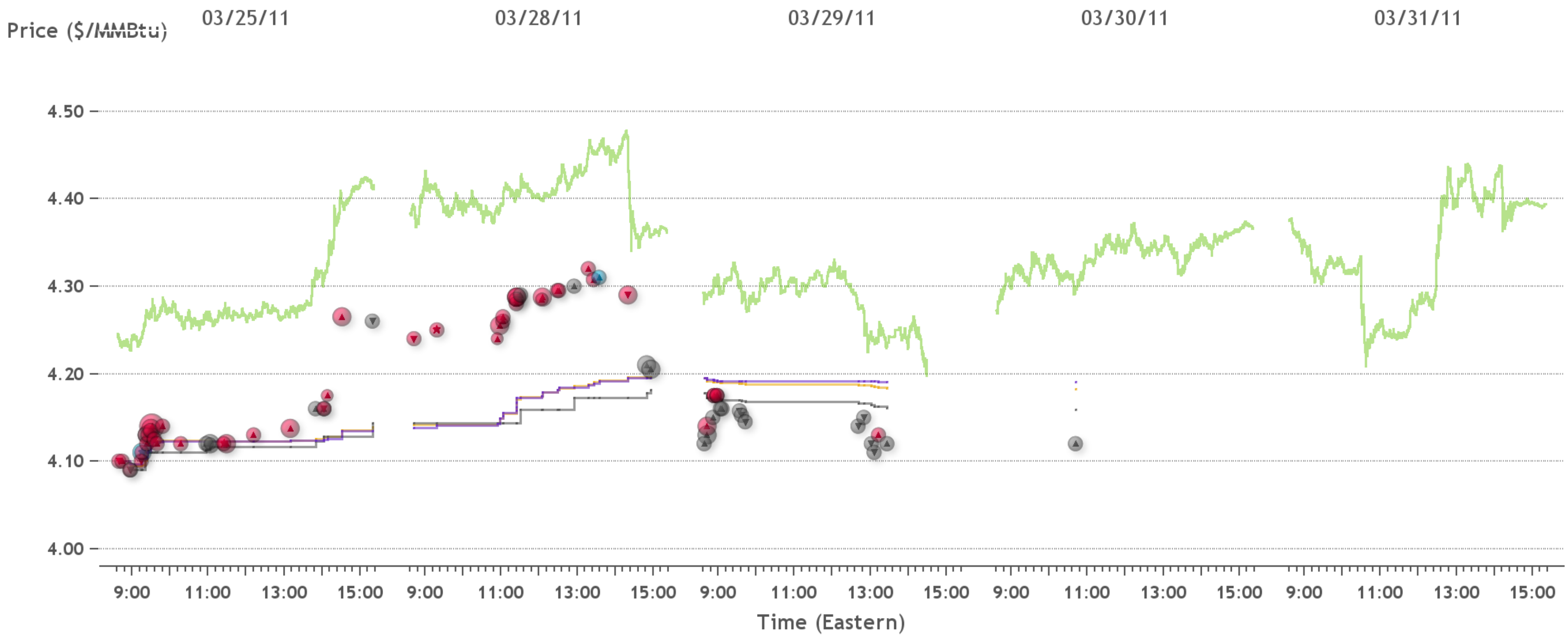



Legend:
● Non-TGPNA Trade ● TGPNA Sale ● TGPNA Buy
▼ ICE Consummated Bid ▲ ICE Consummated Offer ★ TGPNA Off-ICE Trade
ICE VWAP — TGPNA ICE VWAP — Non-TGPNA ICE VWAP — Nymex
Note: The circle size reflects the relative trade size.

TGPNA's ICE Buy Volume Share: 18.4%
TGPNA's ICE Sale Volume Share: 58.5%
TGPNA's Final VWAP (ICE and Off-ICE): $3.697
Non-TGPNA Final ICE VWAP: $3.722
IFERC Print: $3.70

**Data Sources: ICE, TGPNA, and IFERC**

## Physical Fixed-Price Trades at Waha during Bidweek for April 2011

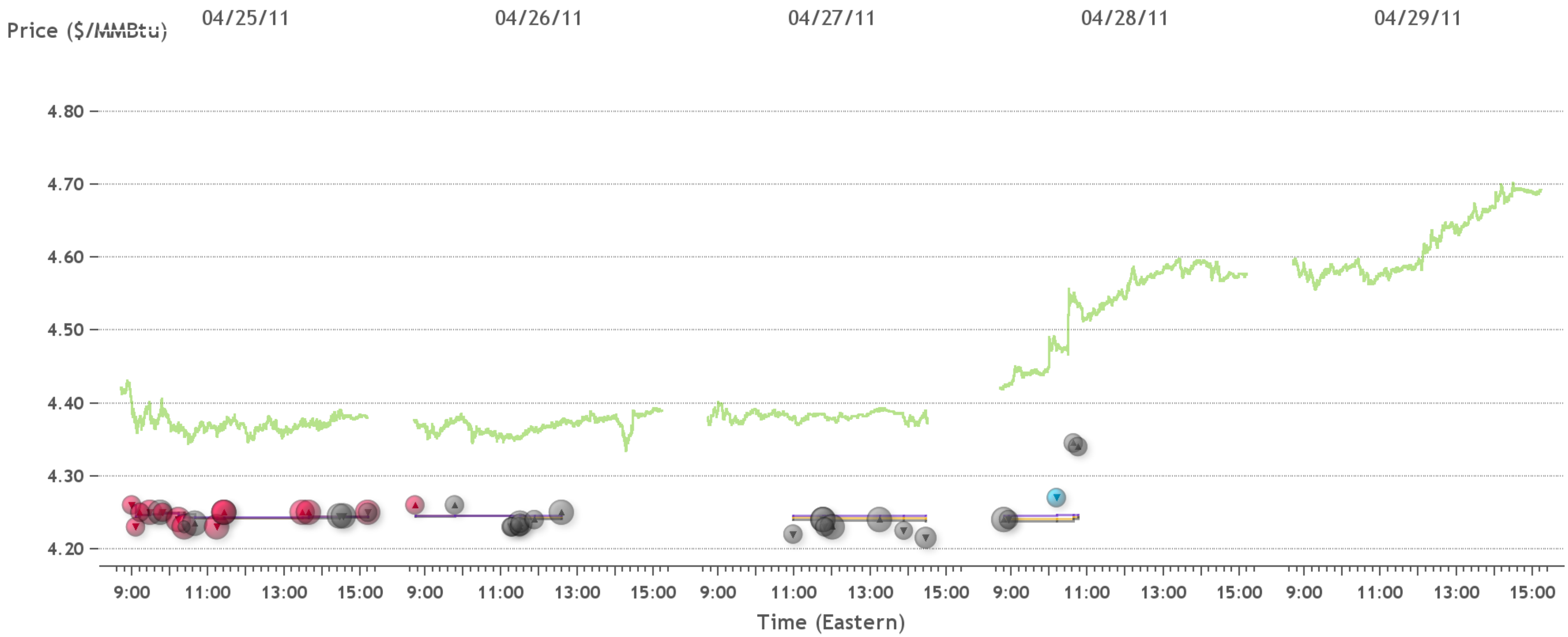



Legend:
● Non-TGPNA Trade ● TGPNA Buy ● TGPNA Sale
▼ ICE Consummated Bid ▲ ICE Consummated Offer ★ TGPNA Off-ICE Trade
ICE VWAP, TGPNA ICE VWAP, Non-TGPNA ICE VWAP, Nymex
Note: The circle size reflects the relative trade size.

TGPNA's ICE Buy Volume Share: 64.2%
TGPNA's ICE Sale Volume Share: 1.2%
TGPNA's Final VWAP (ICE and Off-ICE): $4.191
Non-TGPNA Final ICE VWAP: $4.159
IFERC Print: $4.18

**Data Sources: ICE, TGPNA, and IFERC**

## Physical Fixed-Price Trades at Waha during Bidweek for May 2011




Legend:
● Non-TGPNA Trade ● TGPNA Buy ● TGPNA Sale
▼ ICE Consummated Bid ▲ ICE Consummated Offer ★ TGPNA Off-ICE Trade
ICE VWAP — TGPNA ICE VWAP — Non-TGPNA ICE VWAP — Nymex
Note: The circle size reflects the relative trade size.

TGPNA's ICE Buy Volume Share: 38.0%
TGPNA's ICE Sale Volume Share: 1.7%
TGPNA's Final VWAP (ICE and Off-ICE): $4.247
Non-TGPNA Final ICE VWAP: $4.244
IFERC Print: $4.24

**Data Sources: ICE, TGPNA, and IFERC**

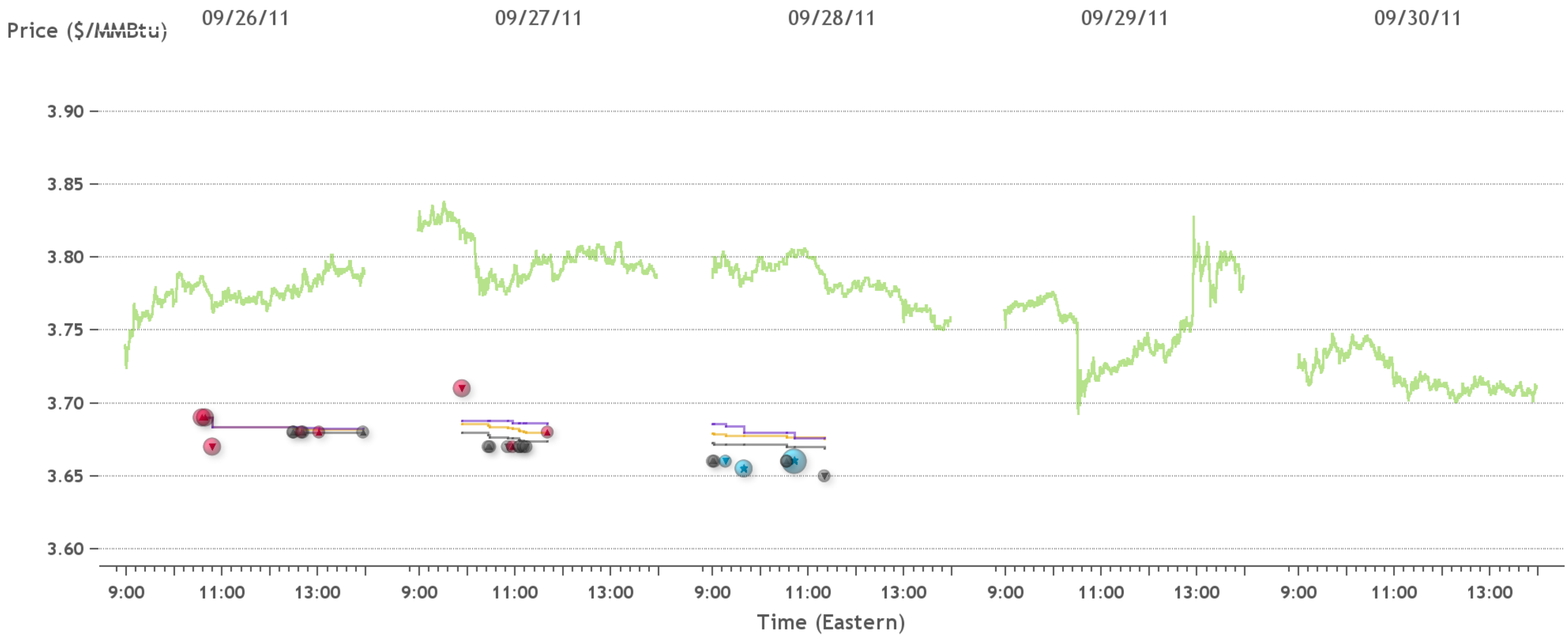
## Physical Fixed-Price Trades at Waha during Bidweek for September 2011


Legend:
● Non-TGPNA Trade ● TGPNA Sale ● TGPNA Buy
▼ ICE Consummated Bid ▲ ICE Consummated Offer ★ TGPNA Off-ICE Trade
ICE VWAP TGPNA ICE VWAP Non-TGPNA ICE VWAP Nymex
Note: The circle size reflects the relative trade size.

TGPNA's ICE Buy Volume Share: 70.6%
TGPNA's ICE Sale Volume Share: 0.8%
TGPNA's Final VWAP (ICE and Off-ICE): $3.909
Non-TGPNA Final ICE VWAP: $3.872
IFERC Print: $3.90

**Data Sources: ICE, TGPNA, and IFERC**

## Physical Fixed-Price Trades at Waha during Bidweek for October 2011

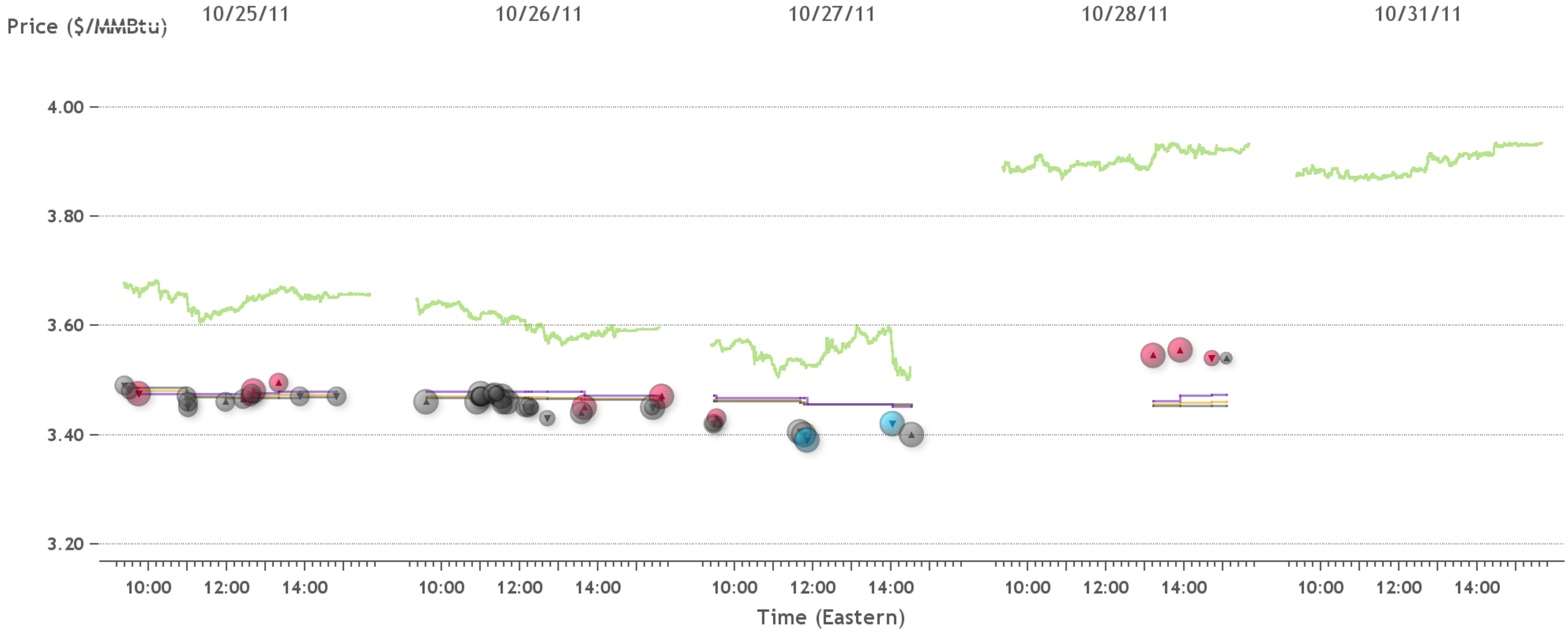



Legend:
Non-TGPNA Trade · TGPNA Buy · TGPNA Sale
▼ ICE Consummated Bid · ▲ ICE Consummated Offer · ★ TGPNA Off-ICE Trade
ICE VWAP · TGPNA ICE VWAP · Non-TGPNA ICE VWAP · Nymex
Note: The circle size reflects the relative trade size.

TGPNA's ICE Buy Volume Share: 41.4%
TGPNA's ICE Sale Volume Share: 3.4%
TGPNA's Final VWAP (ICE and Off-ICE): $3.676
Non-TGPNA Final ICE VWAP: $3.669
IFERC Print: $3.67

**Data Sources: ICE, TGPNA, and IFERC**

## Physical Fixed-Price Trades at Waha during Bidweek for November 2011




Legend:

Non-TGPNA Trade · TGPNA Buy · TGPNA Sale

▼ ICE Consummated Bid ▲ ICE Consummated Offer ★ TGPNA Off-ICE Trade

ICE VWAP · TGPNA ICE VWAP · Non-TGPNA ICE VWAP · Nymex

Note: The circle size reflects the relative trade size.

TGPNA's ICE Buy Volume Share: 24.6%

TGPNA's ICE Sale Volume Share: 6.3%

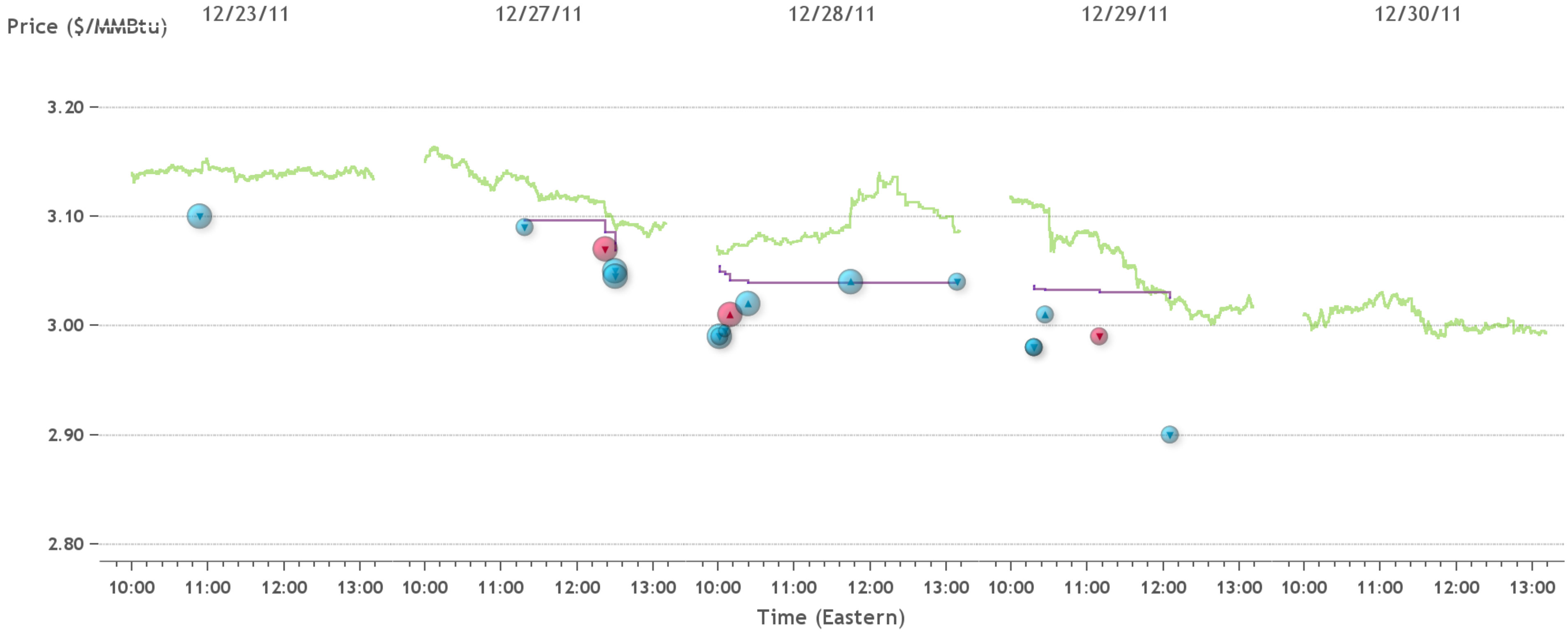
TGPNA's Final VWAP (ICE and Off-ICE): $3.474

Non-TGPNA Final ICE VWAP: $3.454

IFERC Print: $3.46

**Data Sources: ICE, TGPNA, and IFERC**

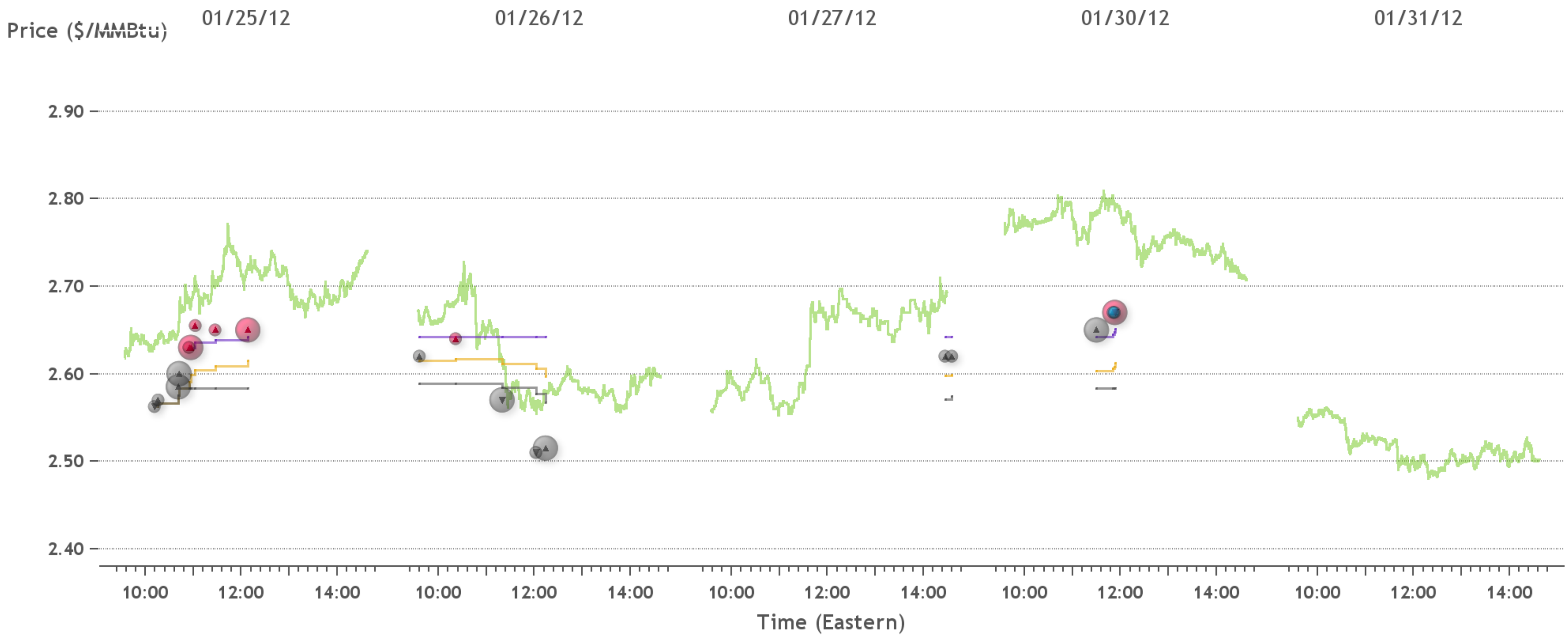
## Physical Fixed-Price Trades at Waha during Bidweek for January 2012




Legend:
Non-TGPNA Trade TGPNA Sale TGPNA Buy
▼ ICE Consummated Bid ▲ ICE Consummated Offer ★ TGPNA Off-ICE Trade
ICE VWAP TGPNA ICE VWAP Nymex
Note: The circle size reflects the relative trade size.

TGPNA's ICE Buy Volume Share: 20.4%
TGPNA's ICE Sale Volume Share: 79.6%
TGPNA's Final VWAP (ICE and Off-ICE): $3.026
Non-TGPNA Final ICE VWAP: .
IFERC Print: $3.04
**Data Sources: ICE, TGPNA, and IFERC**

## Physical Fixed-Price Trades at Waha during Bidweek for February 2012

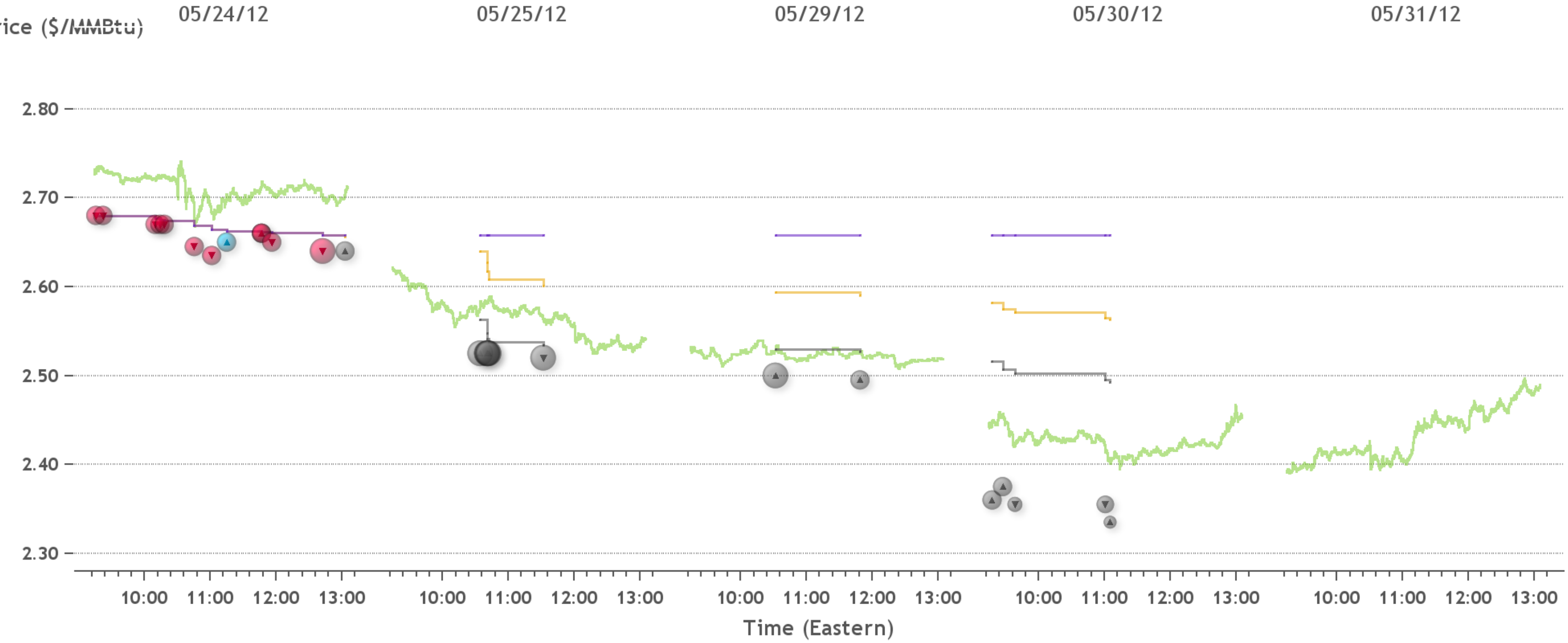



Legend:
● Non-TGPNA Trade ● TGPNA Buy ● TGPNA Sale
▼ ICE Consummated Bid ▲ ICE Consummated Offer ★ TGPNA Off-ICE Trade
ICE VWAP — TGPNA ICE VWAP — Non-TGPNA ICE VWAP — Nymex
Note: The circle size reflects the relative trade size.

TGPNA's ICE Buy Volume Share: 35.7%
TGPNA's ICE Sale Volume Share: 7.1%
TGPNA's Final VWAP (ICE and Off-ICE): $2.651
Non-TGPNA Final ICE VWAP: $2.584
IFERC Print: $2.60

**Data Sources: ICE, TGPNA, and IFERC**

## Physical Fixed-Price Trades at Waha during Bidweek for June 2012

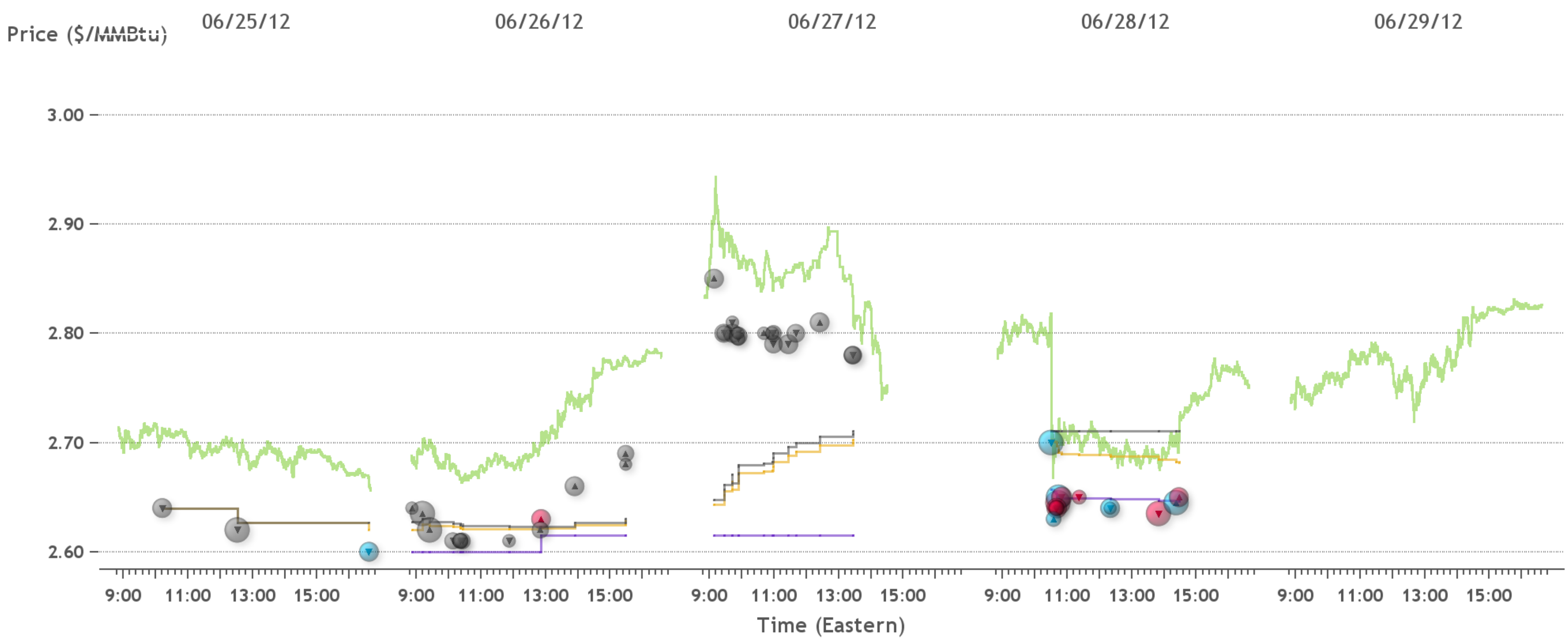



Legend:
● Non-TGPNA Trade ● TGPNA Buy ● TGPNA Sale
▼ ICE Consummated Bid ▲ ICE Consummated Offer ★ TGPNA Off-ICE Trade
ICE VWAP — TGPNA ICE VWAP — Non-TGPNA ICE VWAP — Nymex
Note: The circle size reflects the relative trade size.

TGPNA's ICE Buy Volume Share: 39.2%
TGPNA's ICE Sale Volume Share: 3.3%
TGPNA's Final VWAP (ICE and Off-ICE): $2.658
Non-TGPNA Final ICE VWAP: $2.493
IFERC Print: $2.59

**Data Sources: ICE, TGPNA, and IFERC**

## Physical Fixed-Price Trades at Waha during Bidweek for July 2012




Legend:
● Non-TGPNA Trade ● TGPNA Sale ● TGPNA Buy
▼ ICE Consummated Bid ▲ ICE Consummated Offer ★ TGPNA Off-ICE Trade
ICE VWAP — TGPNA ICE VWAP — Non-TGPNA ICE VWAP — Nymex
Note: The circle size reflects the relative trade size.

TGPNA's ICE Buy Volume Share: 23.8%
TGPNA's ICE Sale Volume Share: 21.3%
TGPNA's Final VWAP (ICE and Off-ICE): $2.647
Non-TGPNA Final ICE VWAP: $2.711
IFERC Print: $2.66

**Data Sources: ICE, TGPNA, and IFERC**