

155 FERC ¶ 61,204
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

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

Coaltrain Energy, L.P., Peter Jones, Shawn Sheehan,
Robert Jones, Jeff Miller, Jack Wells, and Adam Hughes

Docket No. IN16-4-000

ORDER ASSESSING CIVIL PENALTIES

(Issued May 27, 2016)

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1. In this Order, we find that Coaltrain Energy, L.P. (Coaltrain), Coaltrain’s co-owners Peter Jones and Shawn Sheehan, and Coaltrain traders Robert Jones, Jeff Miller, and Jack Wells (collectively, Respondents) violated section 222 of the Federal Power Act (FPA)¹ and section 1c.2 of the Commission’s regulations,² which prohibit energy market manipulation, through a scheme to engage in fraudulent Up-To Congestion (UTC) transactions in PJM Interconnection, L.L.C.’s (PJM) energy markets to garner excessive amounts of certain credit payments to transmission customers.³ We also find that in the course of responding to the Commission’s Office of Enforcement Staff’s (OE Staff) investigation about its UTC trading conduct, Coaltrain violated section 35.41(b) of the

¹ 16 U.S.C. § 824v(a) (2012).

² 18 C.F.R. § 1c.2 (2015) (Anti-Manipulation Rule).

³ On January 6, 2016, the Commission issued an Order to Show Cause, which commenced this public proceeding. *Coaltrain Energy, L.P.*, 154 FERC ¶61,002 (2016) (Order to Show Cause). That order directed Coaltrain’s software engineer, Adam Hughes, to show cause why he should not be found to have violated section 222 of the FPA and the Anti-Manipulation Rule. *Id.* P 1. The Commission declines to find Mr. Hughes in violation of section 222 of the FPA and the Anti-Manipulation Rule.

Commission's regulations,⁴ which, in relevant part, prohibits a seller, such as Coaltrain, from submitting false or misleading information to or omitting material information from Commission staff. In light of the seriousness of these violations, we find that it is appropriate to assess civil penalties pursuant to section 316A(b) of the FPA⁵ in the following amounts: \$26,000,000 against Coaltrain (jointly and severally with Messrs. Peter Jones and Sheehan); \$5,000,000 against Mr. Peter Jones; \$5,000,000 against Mr. Sheehan; \$1,000,000 against Mr. Robert Jones; \$500,000 against Mr. Miller; and \$500,000 against Mr. Wells. The Commission further directs Coaltrain, Mr. Peter Jones, and Mr. Sheehan to disgorge, jointly and severally, unjust profits, plus applicable interest, pursuant to section 309 of the FPA,⁶ in the amount of \$4,121,894.

I. Executive Summary

2. The UTC trading conduct at issue in this proceeding is similar to the behavior the Commission found fraudulent in its *Chen* and *City Power* orders issued last year.⁷ While the trades were not identical in all instances, Respondents' scheme in executing the trades was the same as the respondents' schemes in *Chen* and *City Power*—to trade UTCs not to profit based on price spread arbitrage, as the product was designed, but instead, to profit solely or primarily from a transmission credit that had nothing to do with the underlying product.

3. As in *Chen* and *City Power*, Respondents' scheme involved financial trading in the wholesale electricity market administered by PJM. As discussed in further detail below, PJM operates both a day-ahead market, in which generation is scheduled one-day prior to the relevant operating day, and a real-time market, in which generation is scheduled and dispatched to correct for variations between the day-ahead schedule and actual demand for electricity. PJM's energy market offers products that involve the physical movement of electricity, as well as various financial or virtual products that do not involve the exchange of physical energy, including the UTC product. A UTC product is a type of spread trade that allows market participants to arbitrage the difference

⁴ 18 C.F.R. § 35.41(b) (2015).

⁵ 16 U.S.C. § 825o-1(b) (2012).

⁶ *Id.* § 825h.

⁷ See *Houlian Chen*, 151 FERC ¶ 61,179 (2015) (*Chen*); *City Power Marketing, LLC*, 152 FERC ¶ 61,012 (2015) (*City Power*).

between day-ahead and real-time congestion prices at two different locations.⁸ When the UTC transactions discussed in this proceeding were made, PJM's market rules required market participants to reserve transmission service to successfully place them.⁹ UTC transactions became eligible to receive certain transmission credits, known as Marginal Loss Surplus Allocation (MLSA), if they reserved and used paid transmission service. PJM distributed the MLSA payments on a *pro rata* basis to all customers who paid for transmission service.

4. Between June 15 and September 2, 2010 (Manipulation Period), Respondents designed and implemented a fraudulent UTC trading scheme to receive excessive amounts of MLSA payments. To do this, Respondents knowingly executed high volumes of three categories of UTC trades: (i) trades between two PJM nodes (SouthImp-SouthExp) that are import and export pricing points of the same PJM interface designed to have equivalent prices; (ii) trades between two PJM nodes (NCMPAImp-NCMPAExp) that historically had a very small price spread and in most hours failed to generate spreads greater than the transaction costs associated with the trades; and (iii) trades on 38 other paths between or among PJM nodes that also had small price spreads and in most hours failed to generate spreads greater than the transaction costs. Respondents referred to and identified these three categories of trades as "OCL" Trades, which stands for "Over-Collected-Losses," the term Respondents used to refer to MLSA.¹⁰ Consistent with the terminology used by Respondents, we will refer to these three categories of trades collectively as "OCL Trades," and Respondents' overall strategy to execute these trades for purposes of collecting MLSA as the "OCL Strategy."¹¹ The contemporaneous

⁸ In particular, a UTC bid that clears PJM's market will pay the difference between the day-ahead prices at location A and location B, and receive the difference between the real-time prices at location A and location B.

⁹ Confidential Referral of Potential Violations of FERC Market Rule, at 2, 4 (Aug. 16, 2010) (PJM Referral). A reservation for transmission service that is accepted by PJM provides the market participant with the right to flow electricity on a designated transmission path. Any given transmission path has a limited amount of capacity.

¹⁰ Respondents distinguished their OCL Trades from the legitimate UTC trades they made to arbitrage price differences, which they termed "Spread" Trades, and which we will refer to as Respondents' "Spread Trades" and "Spread Strategy."

¹¹ In addition, we will refer to the trades between SouthImp and SouthExp as "SouthImp-Exp OCL Trades," the trades between NCMPAImp and NCMPAExp as "NCMPAImp-Exp OCL Trades," and the trades on the other 38 paths as "Other OCL Trades."

evidence shows that Respondents knowingly placed these OCL Trades and reserved paid transmission service for them solely or primarily to collect excessive MLSA payments that otherwise would have gone to other market participants.

5. Respondents' OCL Trades were manipulative because they were executed for the sole or primary purpose of targeting and garnering MLSA payments. Additionally, they were manipulative because they falsely appeared to PJM as being placed for the market design purpose of arbitraging price spreads, thus concealing their fraudulent nature and purpose. Respondents placed these trades as if they were routine arbitrage-based UTC trades on nodes that historically had zero, near-zero, or "low-risk" price spreads in order to profit solely, or primarily, from MLSA. Thus, Respondents deceived PJM into disbursing MLSA payments by creating the false impression that Coaltrain was trading to arbitrage price differentials when, in fact, it was engaging in trades solely or primarily to collect MLSA payments to the detriment of other market participants.

6. Based on the totality of the Record in this proceeding,¹² we find that Respondents' OCL Trades during the Manipulation Period violated section 222 of the FPA and the Anti-Manipulation Rule. When used appropriately, UTC trades in PJM permit financial traders to profit by arbitraging market prices between two locations in the day-ahead and real-time markets. Respondents' testimony and the contemporaneous evidence makes clear that Respondents understood this market design purpose, yet intentionally placed fraudulent OCL Trades that did not try to arbitrage price differences. Respondents knew that most of their OCL Trades would net no or a minimal profit based on price spreads alone and that their OCL Trades would overwhelmingly result in losses after considering transaction costs. But they placed the trades in large volumes nonetheless because they knew they would capture MLSA payments that would offset and exceed the transaction costs.

7. Further, we conclude that Respondents engaged in their OCL Strategy knowingly and intentionally. Contemporaneous statements and actions, testimony, trade data, and other evidence demonstrate that Respondents chose to engage in UTC trades solely or primarily to garner excessive MLSA payments in a manner inconsistent with the market design of UTC transactions. In fact, even though it was unnecessary for Respondents to

¹² The Record includes all investigative materials, including documents, screenshots, trade data, and testimony submitted to the Commission by OE Staff and Respondents in this proceeding. The Record contains more than 160 gigabytes of data. In addition, this Order considers the arguments raised by OE Staff and Respondents in nearly 800 pages of pleadings, declarations, and an expert report, as well as certain publicly available materials.

pay for transmission to engage in UTC trades, the evidence reflects that Respondents elected to purchase transmission for all three categories of their OCL Trades specifically to garner MLSA payments. Respondents then increased the volume of their OCL Trades to increase their share of MLSA payments. Respondents understood that, as a consequence of this trading scheme, other market participants would receive a proportionally smaller share of MLSA payments. Moreover, as Respondents' OCL Trades increased, their paid transmission service reservations necessarily increased, thus decreasing the available transmission capacity (ATC) for other eligible market participants. Accordingly, by targeting MLSA payments through these illegitimate, high-volume UTC trades, Respondents fraudulently obtained MLSA payments that otherwise would have been distributed to other market participants and deprived other market participants of ATC while it was reserved in the PJM market.

8. Based on the totality of the Record in this proceeding, we also find that Coaltrain violated section 35.41(b) of the Commission's regulations by submitting false statements and omitting material information in communications with OE Staff. In the course of responding to OE Staff's investigation, we find that Coaltrain intentionally withheld relevant documents from OE Staff while repeatedly representing to OE Staff that its productions were "true, complete, and accurate." Specifically, Coaltrain for two years failed to produce documents recorded on its Spector 360 software application discussing and reflecting its OCL Strategy. Coaltrain knew that these documents existed, but did not produce them until OE Staff discovered their existence on its own.

9. Finally, we conclude that Respondents' actions warrant both civil penalties and disgorgement.¹³

II. Background

A. Relevant Entities

10. Respondents in this case consist of Coaltrain, co-owners Messrs. Peter Jones and Sheehan, and traders Messrs. Robert Jones, Miller, and Wells. Messrs. Peter Jones and Sheehan formed a trading company called Energy Endeavors, Coaltrain's predecessor, in the early 2000s.¹⁴ Subsequently, in 2009, they founded Coaltrain, which traded almost

¹³ 16 U.S.C. § 825o-1(b) (2012); 16 U.S.C. § 825h (2012).

¹⁴ See COALTRAIN0000691; COALTRAIN0000692.

exclusively in PJM.¹⁵ Coaltrain had market-based rate authority when the trading at issue in this matter occurred.¹⁶

11. All of the individual Respondents had significant energy experience prior to the Manipulation Period and first worked for Energy Endeavors. Mr. Peter Jones had a career in nuclear power operations and has been trading UTCs in PJM since approximately 2001.¹⁷ He was a co-owner of Coaltrain and executed some of the trades at issue. Mr. Sheehan has continuously worked as a trader since approximately 2000.¹⁸ Together with Mr. Peter Jones, he co-owned Coaltrain and executed some of the trades at issue.¹⁹ Mr. Miller joined Coaltrain as a trader in 2007 after a career in the nuclear energy industry and has traded in PJM ever since.²⁰ He did not execute any OCL Trades, but was deeply involved in the planning of the OCL Strategy and approved other Respondents' execution of these trades.²¹ Mr. Robert Jones, the son of Mr. Peter Jones,

¹⁵ See COALTRAIN0000602; COALTRAIN0000606; COALTRAIN0000649; COALTRAIN0000651; Testimony of Shawn Sheehan, Volume I Tr. 23:3-6 (Oct. 11, 2012) (Sheehan Test. Vol. I); FERC Docket No. ER09-594.

¹⁶ Coaltrain Energy LP, Docket No. ER09-594-000 (March 31, 2009) (Delegated Letter Order Approving Application for Market-Based Rate Authority). Coaltrain had market-based rate authority until April 15, 2011. *Big Bog Energy LP*, Docket No. ER11-3358-000 (May 18, 2011) (Delegated Letter Order Approving Application for Cancellation of Market-Based Rate Authority).

¹⁷ Testimony of Peter Jones, Vol. I Tr. 18:18-20:16 (Sept. 16, 2010) (P. Jones Test. Vol. I).

¹⁸ Sheehan Test. Vol. I Tr. 14:10-18:24, 15:3-16:18, 51:4-17.

¹⁹ Mr. Sheehan claims that certain trades attributed to him were not labeled OCL by him when he executed them and were re-characterized after the fact by Mr. Robert Jones. Declaration of Shawn Sheehan, Mar. 4, 2016 (Sheehan Decl.), PP 8-9. However, Coaltrain had not yet created the OCL label at the time Mr. Sheehan executed the trades, and in a data response to OE Staff, Coaltrain itself identified Mr. Sheehan as a "trader who conducted OCL trades, or trades pursuant to the OCL strategy, during the Relevant Period." Coaltrain Response to Enforcement's Sixth Data Request, Question No. 7 (Dec. 19, 2012). We find that Mr. Sheehan did execute OCL Trades. See *infra* P 175.

²⁰ Testimony of Jeff Miller Tr. 12:25-13:23 (Dec. 19, 2012) (Miller Test.).

²¹ See, e.g., Miller Spector 360 Chat IM (June 10, 2010 9:04 am); Miller Spector 360 Chat IM (June 10, 2010 9:34 am); Wells Test. Ex. 55.

joined Coaltrain as a market analyst and trader in late 2008 after working in the logistics industry for approximately three years.²² Mr. Wells had a career in the nuclear energy industry and joined Coaltrain as an analyst and trader in late 2008.²³ Messrs. Robert Jones and Wells executed a majority of the OCL Trades.²⁴

12. Coaltrain ceased doing business in April 2011 when Messrs. Peter Jones and Sheehan ended their business partnership and founded separate, new, jurisdictional companies.²⁵ Mr. Robert Jones is part owner of his father's new company. Between August 2010 and August 2014, Messrs. Peter Jones and Sheehan withdrew more than \$33 million from Coaltrain, leaving the company with few remaining assets.²⁶

B. The PJM Market

13. PJM, one of several Commission-regulated Regional Transmission Organizations (RTOs) and Independent System Operators (ISOs), operates a wholesale electricity market, which balances the minute-by-minute supply and demand requirements for

²² Testimony of Robert Jones Tr. 11:13-13:2 (Jan. 9, 2013) (R. Jones Test.).

²³ Testimony of Jack Wells Tr. 12:23-18:7 (July 19, 2013) (Wells Test.).

²⁴ See COALTRAIN003512-3519; COALTRAIN011540; Hourly Loss Credit Allocation data from PJM (3d_DR_Trade_Data_COALTR). These ten data sets, which the Commission cites throughout this Order, contain the complete set of Coaltrain's PJM UTC transactional data from April 2009 through January 2011, including both OCL and Spread Strategy transactions. Information in these data sets includes OCL Trade designation, bid path, Open Access Same-Time Information System (OASIS) reservation information, MW bid and cleared values, bid price, spread values, transmission reservations and charges, and MLSA revenue. The COALTRAIN003512-3519 and COALTRAIN011540 data sets were provided to OE Staff by Coaltrain, while the 3d_DR_Trade_Data_COALTR data set was provided to OE Staff by PJM. We will cite to these ten data sets throughout the order as "Coaltrain and PJM Data."

²⁵ R. Jones Test. Tr. 15:5-12, 19:8-11; Sheehan Test. Vol. I Tr. 25:20-22; 26:15-27:1.

²⁶ COALTRAIN011829; COALTRAIN011849.

electric power, in a 13-state region extending from Illinois to North Carolina.²⁷ PJM uses market-based systems to determine a least-cost solution by optimizing available assets within its territory to meet electricity demand and reliability requirements. Electricity prices in PJM vary based on the specific location, or node, within the market. For this reason, electricity prices at the various locations are called Locational Marginal Prices (LMP). Three components summed together form the LMP: (i) an energy price (which is the same at each node and represents the cost to serve the next increment of load (demand) at a pre-determined reference location); (ii) the cost of congestion (which varies at each node depending on the limitations of the transmission system to move power freely between constrained and non-constrained locations); and (iii) the cost of line losses (which are central to this proceeding and which we discuss in greater detail below).

14. PJM operates a dual settlement market, with both a day-ahead market and a real-time market. PJM determines LMPs through the least-cost solution on an hourly basis in the day-ahead and on a five-minute basis (which can be integrated into an hourly figure) in the real-time for all nodes.

15. In addition to physical transactions, which involve the delivery of electricity, PJM offers various virtual products, including UTCs²⁸ for which no generation is dispatched and no load is served, and obligations are met through cash settlement. Virtual products are designed to, among other things, increase market liquidity, drive convergence between the day-ahead and real-time market prices,²⁹ and provide vehicles for hedging.

²⁷ PJM's footprint includes all or parts of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia, and the District of Columbia. <http://www.pjm.com/about-pjm/who-we-are/territory-served.aspx> (last visited May 12, 2016).

²⁸ A virtual transaction does not require generation to be dispatched or load to be served. Rather, it allows a market participant to arbitrage day-ahead versus real-time prices by either purchasing or selling a position in the day-ahead market, and then doing the opposite in an equal volume at the same location in the real-time market, thereby taking no physical position when the system is dispatched.

²⁹ Convergence in the PJM market is the reduction in the spread between day-ahead and real-time LMPs at a specific node. As indicated by PJM's Independent Market Monitor (IMM), "price convergence does not necessarily mean a zero or even a very small difference in prices between [d]ay-[a]head and [r]eal-[t]ime [e]nergy [m]arkets. There may be factors, from operating reserve charges to risk that result in a competitive, market-based differential." PJM's IMM, *2010 State of the Market for PJM*, vol. 2 (Mar. 10, 2011), *available at*

(continued...)

While virtual products carry no obligation to buy or sell physical power, they serve a direct role in day-ahead price formation as reflected in day-ahead LMPs. As such, virtual products can: (i) be the price setting marginal factor in determining day-ahead LMPs; (ii) affect day-ahead dispatch; and (iii) affect other market participant positions.³⁰

C. PJM's Up-To Congestion Product

16. UTCs were initially created as a tool to hedge congestion price risk associated with physical transactions,³¹ and later became a way for market participants to profit by arbitraging the price differences between two nodes in the day-ahead and real-time markets.³² A UTC bid that clears “will pay the difference between the [d]ay-ahead sink LMP and the source LMP and be paid the difference between the [r]eal-time sink LMP and source LMP.”³³ Thus, “cleared UTC transactions in the direction of congestion are profitable when real-time congestion is greater than day-ahead congestion. In the counter-flow direction, UTC transactions are profitable when real-time congestion decreases or reverses from the counter-flow direction toward the direction of congestion.”³⁴

17. UTC transactions in PJM are designed to serve two purposes. First, market participants use them as a congestion management tool to hedge exposure to real-time congestion charges between the source and sink (which can differ significantly from day-ahead congestion charges) of physical energy transactions in PJM.³⁵ Second,

http://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2010/2010-som-pjm-volume2-sec2.pdf (last visited May 12, 2016).

³⁰ Howard J. Haas, *Spread Bidding: MA Concerns and Mitigation Outline* (Sept. 10, 2009), available at http://www.monitoringanalytics.com/reports/Presentations/2009/Spread_Bidding_MA_Concerns_and_Mitigation_Outline_20090910.pdf.

³¹ *PJM Interconnection, L.L.C.*, 144 FERC ¶ 61,121, at P 3 (2013); see also *Calif. Indep. Sys. Operator Corp.*, 143 FERC ¶ 61,087, at P 6 (2013) (noting that market participants can use virtual transactions to “hedge financial expectations”).

³² *PJM Interconnection, L.L.C.*, 144 FERC ¶ 61,121 at P 19.

³³ *PJM Interconnection, L.L.C.*, 148 FERC ¶ 61,144, at n.8 (2014).

³⁴ *Id.*

³⁵ *PJM Interconnection, L.L.C.*, 144 FERC ¶ 61,121 at P 3.

financial traders use them as a “purely virtual product.”³⁶ Specifically, arbitrageurs can use UTCs to take on directional price risk related to the differences between LMP in the day-ahead and real-time markets. As the Commission has explained:

Under an Up-To congestion price arrangement, arbitrageurs may sell power at point A and buy power at point B in the [d]ay-[a]head market as long as the price differential between these points is no greater than the specified amount. If during the [r]eal-[t]ime market, the spread between these points increases, the arbitrageur makes money; if the spread decreases, it loses money.³⁷

18. UTCs, like other virtual products, can promote market efficiency because, as we have recognized, virtual products may “increase[] market liquidity and [create] price convergence between the day-ahead and real-time markets.”³⁸ Although they are settled financially, virtual (including UTC) transactions can affect prices in the day-ahead market as well as what units are dispatched by PJM to provide energy to the wholesale grid.³⁹

19. In 2010, PJM required that all UTC transactions either source, or sink, at an external interface, or “wheel through” between two external interfaces (a simultaneous sourcing and sinking of power that led to a net MW position of zero). These rules reflected the initial purpose of UTC transactions, which was to provide a congestion hedge for market participants moving power into, out of, or through PJM.

³⁶ *Id.* P 19 (noting the “evolution of the UTC product from a day-ahead financial hedge of a real-time physical transaction to its present primary use as a purely virtual product”).

³⁷ *Black Oak Energy, L.L.C. v. PJM Interconnection, L.L.C.*, 122 FERC ¶ 61,208, at n.85 (2008).

³⁸ *PJM Interconnection, L.L.C.*, 104 FERC ¶ 61,309, at P 20 (2003); *see also ISO New England Inc.*, 110 FERC ¶ 61,250, at P 30 (2005) (“In fact, virtual trading activities provide important benefits to the market, including price convergence between the [d]ay-[a]head and [r]eal-[t]ime markets, price discovery, market liquidity, and increased competition.”).

³⁹ *Black Oak Energy*, 122 FERC ¶ 61,208 at P 38 (noting that there is a “price impact of the virtual transaction on the physical transmission system that forms the basis for both the [d]ay-[a]head and [r]eal-[t]ime [e]nergy [m]arkets”).

20. At the time Respondents traded the UTCs at issue in this proceeding, PJM required all UTC transactions scheduled into the day-ahead market to be associated with transmission service reservations, which, once obtained, provided the right to flow electricity across the PJM system. PJM assessed certain transmission charges for transmission service reservations.⁴⁰ However, the PJM tariff did not require that the transmission service reservation associated with a UTC be on the same path as the UTC.⁴¹ Moreover, reserved transmission with a Midcontinent Independent System Operator, Inc. (MISO) point of delivery,⁴² unlike other points of delivery, was not assessed any transmission fees,⁴³ but also was not eligible for MLSA. In 2010, Respondents reserved paid, non-firm point-to-point transmission for their OCL Trades. While Respondents were permitted to reserve capacity with a MISO point of delivery for all of the SouthImp-Exp and NCMPIImp-Exp UTC trades they scheduled to avoid being assessed transmission fees, Respondents did not use a MISO point of delivery for any of the trades at issue here and, instead, incurred unnecessary transmission fees.⁴⁴

D. Marginal Loss Surplus Allocations

21. At the time of Respondents' conduct at issue here, all UTC transactions associated with paid transmission service in PJM were eligible to receive a portion of MLSA payments. Respondents referred to these payments as "Over-Collected Losses" or

⁴⁰ PJM Referral at 2, 4.

⁴¹ PJM Response to Enforcement's Fifth Data Request, Question No. 13 (May 2, 2012) ("A trader wishing to schedule an Up-to Congestion transaction during the relevant period for purposes unrelated to hedging a real power flow did not need to reserve transmission on a path geographically proximate or substantially identical to the path between the Up-To Congestion transaction nodes because this is not required by the PJM tariff.").

⁴² MISO, like PJM, is a Commission-jurisdictional wholesale energy market balancing the minute-by-minute supply and demand requirements for electric power in a geographic area that is to the west of PJM's footprint.

⁴³ Monitoring Analytics' PJM Marginal Loss Surplus Allocation and Market Participant Transaction Activity: May 15, 2010 through September 17, 2010, at 7 (Jan. 6, 2011) (IMM Referral).

⁴⁴ For example, for Respondents' NCMPIImp-Exp OCL Trades, they used NYIS or TVA as the point of delivery and paid transmission service reservation fees when free reservations existed. *See* Coaltrain and PJM Data.

“OCL,” and these transactions as “OCL” or “low-risk” trades.⁴⁵ MLSA refers to the PJM-developed and Commission-accepted distribution to market participants of the surplus revenues that PJM collects for transmission line losses.

22. When electricity flows through a transmission line, a certain amount of energy is lost in the form of heat. The farther electricity travels on any given transmission line, the greater the loss. In calculating the cost of line loss, as part of LMP, PJM sets the price at marginal cost, rather than average cost.⁴⁶ Because marginal costs of line losses are greater than average costs, PJM receives more payments than necessary to compensate for actual line losses, resulting in a surplus revenue.⁴⁷

23. The Commission recognized that “a method needs to be determined for disbursing the over collected amounts” of line loss payments.⁴⁸ In September 2009, the Commission accepted PJM’s proposed distribution method, which paid MLSA on a *pro rata* basis to network service users and transmission customers (including virtual traders) in proportion to their ratio shares of the total MWs of energy: (i) delivered to load in PJM; (ii) exported from PJM; or (iii) cleared in a UTC transaction that paid for transmission services during such hour.⁴⁹

24. Mathematically, MLSA was calculated hourly as a market participant’s eligible MWs (i.e., in energy delivered to load or transmission reservations for exports and UTCs) divided by the total PJM eligible MWs (i.e., total energy delivered to load and

⁴⁵ See, e.g., Testimony of Peter Jones Vol. II Tr. 27:10-11, 40:3-8, 62:20-21, 71:6-8 (Sept. 5, 2013) (P. Jones Test. Vol. II); R. Jones Test. Tr. 142:6-17, 152:14-18, 167:8-11, 173:1-174:4; Miller Test. Tr. 76:12-18; Sheehan Test. Vol. I Tr. 123:11-20, 127:8-10; Wells Test. Tr. 154:23-24 (“Q: What were “OCL plays”? A: I believe that’s the low-risk strategies”); 99:22-24 (“In this case ‘OCL’ refers to low-risk strategy runs that we used to do . . .”).

⁴⁶ *Atlantic City Electric Co. v. PJM Interconnection, L.L.C.*, 115 FERC ¶ 61,132, at P 4 (2006).

⁴⁷ *Id.* P 5.

⁴⁸ *Id.* P 24.

⁴⁹ *Black Oak Energy, L.L.C., v. PJM Interconnection, L.L.C.*, 128 FERC ¶ 61,262, at P 23 (2009). The Commission found that PJM’s proposed method of distributing line loss surplus to those that pay to support the fixed costs of the transmission grid is reasonable. *Id.*

transmission reservations). Under this distribution mechanism, as a market participant's cleared UTC transactions increased, its transmission reservations increased, and if those transmission reservations were for paid transmission, its share of the available MLSA also increased (while inversely decreasing the available MLSA for other market participants).

E. PJM and IMM Referrals, Office of Enforcement Investigation, and Order to Show Cause

25. On August 16, 2010, PJM sent OE Staff a referral related to Coaltrain's UTC trades. The PJM referral was prompted by a market participant who contacted PJM on July 23, 2010, complaining about unusually high volumes of paid transmission reservations on PJM's OASIS and wondering whether Coaltrain and another market participant "were 'trying to game the system in some way' by 'trying to lock people out of transmission purchases.'"⁵⁰ PJM confirmed that several market participants purchased large quantities of transmission and discovered that such reservations were associated with high volumes of UTC bids, beginning on June 1, 2010.⁵¹ PJM stated that "[t]he participants involved in this behavior intentionally submitted large volumes of [UTC] transactions for no purpose other than to illegitimately collect larger allocations of the marginal loss surplus."⁵²

26. PJM described Coaltrain's trades as being UTC trades "between pricing points that had little or no price separation."⁵³ PJM explained, for instance, that SouthImp-Exp "had the exact same definition during the time period when this behavior was observed, and therefore by definition the prices at those points were identical."⁵⁴ "As a result," PJM advised, "the participant was able to clear large MWh volumes of [UTC] transactions with no risk of any settlement in either the day-ahead or balancing markets, but the cleared MWh on the reserved transmission service resulted in an allocation of the marginal loss surplus based on the large MWh quantity of cleared transactions."⁵⁵ PJM

⁵⁰ PJM Referral at 1. Another market participant contacted PJM on July 28, 2010, with a similar complaint. *Id.*

⁵¹ *Id.*

⁵² *Id.* at 2.

⁵³ *Id.*

⁵⁴ *Id.*

⁵⁵ *Id.*

asked OE Staff to investigate the conduct and to require Coaltrain to disgorge any of the revenue it received as a result of this scheme.⁵⁶

27. On August 25, 2010, the Commission issued an order formalizing OE Staff's investigation of Coaltrain and other market participants.⁵⁷ In that order, we noted PJM's allegations that "trades were undertaken with the intent of manipulating PJM market rules so as to gain an allocation of marginal loss surplus revenue without any corresponding usage of the transmission system," and authorized OE Staff to conduct an investigation "regarding violations of the Commission's . . . Prohibition of electric energy market manipulation, that may have occurred in connection with, or related to, certain [UTC] transactions in PJM."⁵⁸ We also directed OE Staff to report the results of that investigation to the Commission.⁵⁹ On January 6, 2011, PJM's IMM submitted a similar referral to OE Staff (IMM Referral).

28. On September 25, 2014, OE Staff issued a Preliminary Findings Letter to Respondents explaining the factual and legal bases for its preliminary findings of violations. Respondents replied to the Preliminary Findings Letter on May 15, 2015. After the Commission issued its orders in *Chen* and *City Power*, Respondents provided a supplemental presentation to OE Staff on September 10, 2015, and submitted a supplemental response to the Preliminary Findings Letter on September 11, 2015. The Office of the Secretary issued a Notice of Alleged Violations on September 11, 2015. After settlement discussions proved unavailing, OE Staff provided notices under section 1b.19 of the Commission's regulations⁶⁰ of its intent to recommend the initiation of a public proceeding against Respondents. On October 19, 2015, Respondents provided their responses to OE Staff's section 1b.19 notice, and Coaltrain alone supplemented its response on October 30, 2015.

29. On January 6, 2016, the Commission issued an Order to Show Cause, which commenced this public proceeding.⁶¹ In the OE Staff Report attached to the Order to

⁵⁶ *Id.* at 6.

⁵⁷ *PJM Up-To Congestion Transactions*, 132 FERC ¶ 61,169 (2010).

⁵⁸ *Id.* PP 1-2 (citation and internal quotations omitted).

⁵⁹ *Id.* at Ordering Paragraph.

⁶⁰ 18 C.F.R. § 1b.19 (2015).

⁶¹ Order to Show Cause, 154 FERC ¶ 61,002.

Show Cause (Staff Report), OE Staff alleges that Respondents violated the Commission's Anti-Manipulation Rule during the Manipulation Period and that Coaltrain violated section 35.41(b) of the Commission's regulations during the course of the investigation.⁶² OE Staff recommends that the Commission assess: (i) disgorgement of \$4,121,894 against Coaltrain and Messrs. Peter Jones and Sheehan jointly and severally and (ii) civil penalties in the following amounts:

- Coaltrain: \$26,000,000;
- Mr. Peter Jones: \$5,000,000;
- Mr. Sheehan: \$5,000,000;
- Mr. Robert Jones: \$1,000,000;
- Mr. Miller: \$500,000;
- Mr. Wells: \$500,000; and
- Mr. Hughes: \$250,000.⁶³

30. In the Order to Show Cause, the Commission directed Respondents to file an answer within 30 days showing cause why they should not be found to have violated section 222 of the FPA and the Anti-Manipulation Rule by engaging in fraudulent UTC transactions in PJM's energy markets.⁶⁴ The Commission also directed Coaltrain to show cause why it should not be found to have violated section 35.41(b) of the Commission's regulations by making false and misleading statements and material omissions during the course of the investigation.⁶⁵ In addition, the Commission directed Respondents to show cause why the proposed penalties should not be assessed.⁶⁶

31. On January 7, 2016, OE Staff filed a Notice of Submission of Non-Public Materials along with various non-public and investigative materials.

32. On February 5, 2016, Respondents submitted a joint notice of their election under section 31(d)(3)(A) of the FPA and the Order to Show Cause,⁶⁷ thereby electing an

⁶² See generally Staff Report.

⁶³ Order to Show Cause, 154 FERC ¶ 61, 002 at P 1.

⁶⁴ *Id.* at Ordering Paragraph (A).

⁶⁵ *Id.* at Ordering Paragraph (B).

⁶⁶ *Id.* at Ordering Paragraph (D).

⁶⁷ *Id.* at Ordering Paragraph (F).

immediate penalty assessment if the Commission finds a violation. OE Staff responded on February 17, 2016. On February 18, OE Staff filed a Supplemental Submission of Non-Public Investigative Materials along with various investigative materials. On March 4, 2016, the following documents were submitted: (i) Answer of Coaltrain Energy, L.P. and the Individual Respondents to Order to Show Cause and Notice of Proposed Penalty (Answer of Coaltrain and Individual Respondents) attaching the Expert Report of Dr. Jonathan A. Lesser (Lesser Report), an appendix of disputed material facts, and the Declarations of Messrs. Hughes, Peter Jones, Robert Jones, Miller, Sheehan, Wells, and Gary Wrinn; (ii) Answer of Peter Jones, Robert Jones, and Jack Wells to Order to Show Cause and Notice of Proposed Penalty (Answer of P. Jones, R. Jones, and Wells); (iii) Answer of Shawn Sheehan, Jeff Miller and Adam Hughes to Order to Show Cause and Notice of Proposed Penalty (Answer of Sheehan, Miller, and Hughes); and (iv) a cover letter submitting cited materials along with those materials. On April 1, 2016, OE Staff filed a reply to Respondents' Answers (Staff Reply). On April 4, 2016, OE Staff filed a Supplemental Submission of Materials along with additional investigative material. On April 14, 2016, OE Staff filed a Notice of Supplemental Authority, attaching a copy of a slip opinion. On April 28, 2016, Respondents filed a Motion for Leave to Respond and Response to the Staff Reply.⁶⁸ On May 4, 2016, OE Staff filed an Answer to Respondents' Motion for Leave to Respond.

33. As part of our adjudication of this matter, we have reviewed and considered all accepted pleadings and attachments, which totaled close to 800 pages, as well as the voluminous Record in this proceeding.

III. Discussion

34. Section 222 of the FPA makes it unlawful for any entity to use a deceptive or manipulative device in connection with the purchase or sale of electric energy or the transmission of electric energy subject to the Commission's jurisdiction.⁶⁹ Order No. 670

⁶⁸ The Commission's Order to Show Cause in this proceeding directed Respondents to submit answers in response to the Order and allowed OE Staff to submit a reply within 30 days of Respondents' answer. The Order to Show Cause did not authorize a second answer in response to OE Staff's reply. Additionally, Rule 213(a) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a) (2015), prohibits an answer to a protest or an answer, unless otherwise permitted by the decisional authority. We are not persuaded to exercise our discretion and, accordingly, we reject Respondents' second answer. We similarly reject OE Staff's Answer to Respondents' Motion for Leave.

⁶⁹ 16 U.S.C. § 824v(a) (2012).

implemented this prohibition, adopting the Anti-Manipulation Rule. That rule, among other matters, prohibits any entity from: (i) using a fraudulent device, scheme, or artifice, or making a material misrepresentation or a material omission as to which there is a duty to speak under a Commission-filed tariff, Commission order, rule, or regulation, or engaging in any act, practice, or course of business that operates or would operate as a fraud or deceit upon any entity; (ii) with the requisite scienter; (iii) in connection with the purchase, sale or transmission of electric energy subject to the jurisdiction of the Commission.⁷⁰ Under the Anti-Manipulation Rule, fraud includes, but is not limited to, “any action, transaction, or conspiracy for the purpose of impairing, obstructing, or defeating a well-functioning market.”⁷¹

35. Section 35.41(b) of the Commission’s regulations requires that a Seller⁷² “provide accurate and factual information and not submit false or misleading information, or omit material information, in any communication with the Commission, Commission-approved market monitors ... [or] Commission-approved independent system operators ... unless Seller exercises due diligence to prevent such occurrences.”⁷³ At the time of the conduct at issue here, Coaltrain was a Seller as that term is defined in section 35.36(a)(1) of the Commission’s regulations⁷⁴ because it had authorization to engage in sales for resale of electric energy, and had in fact made such sales.

36. As discussed below, we find that Respondents violated section 222(a) of the FPA and the Anti-Manipulation Rule by engaging in fraudulent UTC transactions in the PJM energy market to receive large shares of MLSA payments that otherwise would have been allocated to other market participants, and that Coaltrain violated section 35.41(b) of

⁷⁰ *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); 18 C.F.R. § 1c.2 (2015); *see also Barclays Bank PLC*, 144 FERC ¶ 61,041 (2013) (*Barclays*).

⁷¹ Order No. 670, FERC Stats. & Regs. ¶ 31,202 at P 50.

⁷² *Coaltrain Energy, LP*, Docket No. ER09-594-000 (March 31, 2009) (Delegated Letter Order Approving Application for Market-Based Rate Authority). Coaltrain had market-based rate authority until April 15, 2011. *Big Bog Energy LP*, Docket No. ER11-3358-000 (May 18, 2011).

⁷³ 18 C.F.R. § 35.41(b) (2015).

⁷⁴ *Id.* § 35.36(a)(1).

the Commission's regulations by making false and misleading statements and material omissions during the course of the investigation related to Spector 360 data.

A. Findings of Fact

1. Relevant UTC Trading Conduct

a. Respondents' Spread Strategy

37. Respondents understood that UTC trades are aimed at making a profit by predicting price differences (known as "spreads") between the day-ahead and real-time markets on a pair of nodes.⁷⁵ For several years prior to the Manipulation Period, Coaltrain (and its predecessor Energy Endeavors) executed UTC transactions in PJM aimed at making a profit by predicting changes in price spreads between the day-ahead and real-time markets on a pair of nodes (the Spread Strategy).

38. One of the principal features of Respondents' success with the Spread Strategy was their focus on constraints.⁷⁶ Respondents understood that constraints create price divergence between nodes, thus creating an opportunity for arbitrage via UTCs. Indeed, Mr. Wells explained, "[t]hat's why we're interested in constraints, because constraints move prices."⁷⁷ Respondents identified certain constraints and then labeled them in their computer applications as "primary constraints," which, as Mr. Wells explained, "would

⁷⁵ See, e.g., P. Jones Test. Vol. I Tr. 33:4-13 (describing a UTC as a spread value and explaining that "[i]f in the real-time the spread value exceeds the cost of the day-ahead price, then you'll make money on it. . . . If it's less than the cost of the day-ahead, then you lose money on it"); R. Jones Test. Tr. 20:1-2 ("The difference between the day-ahead and real-time LMP, between the two points."); Miller Test. Tr. 22:15-18 ("You would make a profit based on the Real-Time spread being more positive if you paid for the Congestion than it was what you paid in the Day-Ahead."); Sheehan Test. Vol. I Tr. 51:23-24 ("An up-to congestion project is essentially a spread bid between two points"); Wells Test. Tr. 30:25-32:24; 32:18-24 (describing a UTC as a "delta between a day-ahead and a real-time price that may be based on congestion or something else").

⁷⁶ P. Jones Test. Vol. I Tr. 39:17-40:5, 148:18-24; P. Jones Test. Vol. II Tr. 14:19-20; R. Jones Test. Tr. 102:19-25; Miller Test. Tr. 50:1-16, 51:17-52:19.

⁷⁷ Wells Test. Tr. 49:19-50:13.

be a constraint that we have identified as we think may occur as a result of the analysis that we did on outages, transmission changes, whatever.”⁷⁸

39. Respondents also knew how to avoid or reduce transaction costs on their trades to increase their profits. As discussed above, at the time of Respondents’ conduct, PJM’s market rules required UTC trades to include reserved transmission service, but did not require those reservations to reflect the geographic path of the virtual power flow.⁷⁹ There was a charge associated with reserving transmission, which would decrease the profits earned from UTCs.⁸⁰ However, transmission could also be reserved without incurring this charge by using a MISO point of delivery for the transmission.⁸¹ In addition, Respondents used a method of “overscheduling” transmission for their Spread Strategy in order to avoid transmission charges.⁸² When trading pursuant to their Spread Strategy, Respondents used these two ways to avoid or reduce their costs to reserve transmission.⁸³

40. During the Manipulation Period, Respondents executed 38,262 Spread Trades on 236 paths for a total volume of approximately 2.1 million MWh. The average Spread Trade during the Manipulation Period was for approximately 70 MWh (including the overscheduled volumes). Respondents used paid transmission for approximately 18 percent (by volume) of their Spread Trades (which made approximately 18 percent of the

⁷⁸ *Id.* Tr. 61:17-20.

⁷⁹ PJM Response to Enforcement’s Fifth Data Request, Question No. 13 (May 2, 2012).

⁸⁰ Miller Test. Tr. 34:19-22; P. Jones Test. Vol. I Tr. 46:16-18, 87:13-18; P. Jones Test. Vol. II Tr. 44:5-11, 44:23-45:1; R. Jones Test. Tr. 22:19-23,7, 95:15-19; Wells Test. Tr. 38:19-39:13.

⁸¹ IMM Referral at 7; PJM Referral at 2.

⁸² Respondents used “overscheduling” to enter into a different volume of UTCs than they reserved on OASIS, although only the MWh volumes with paid reservations on OASIS qualified for MLSA payments. *See* R. Jones Test. Tr. 31:13-32:9.

⁸³ *Id.* Tr. 23:8-24:17; Sheehan Test. Vol. I Tr. 57:1-5. Prior to June 15, 2010, approximately 69 percent of Coaltrain’s transactions by volume designated MISO as the sink. It used overscheduling for approximately 35 percent of its transactions by volume. In 15 percent of the transactions by volume, Coaltrain used both transmission with a MISO sink and overscheduling. *See* Coaltrain and PJM Data.

MWh in these transactions eligible and 82 percent ineligible for MLSA), obtained a clearance rate of approximately 78 percent, had an average spread of approximately \$0.82 per MWh, and made an average per MWh gain of approximately \$0.62 on the spread. Overall, their Spread Trades earned approximately \$1.85 million on the spread value, paid more than \$434,000 in transaction costs, and received more than \$558,000 in MLSA payments.⁸⁴

b. Respondents' OCL Strategy

41. In addition to their Spread Trades, in June 2010 Respondents began making trades that they referred to as "OCL" Trades, which stands for "Over-Collected-Losses," the term Respondents used to describe the trades they made for the sole or primary purpose of collecting MLSA payments. Respondents first became interested in and focused on MLSA after PJM filed a *Report of Refund* on June 1, 2010, detailing the amount of MLSA it paid or charged to each market participant.⁸⁵ Following PJM's issuance of this report, Respondents performed significant research and analysis on MLSA payments, began devising their OCL Strategy, and started developing software applications to track and find OCL Trades. For example, on June 7, 2010, Mr. Sheehan exchanged an instant message with Mr. Hughes to discuss MLSA.⁸⁶ The same day, Mr. Hughes and another employee provided information and analyses used to calculate that Respondents would have made more money had they voluntarily increased their transmission costs in order to be eligible for MLSA payments.⁸⁷ Also on June 7, 2010, Mr. Miller searched PJM's website for information about over-collected losses, and the next day he performed several Google searches for the term "OCL."⁸⁸ On June 9, 2010, Mr. Miller reviewed an internal spreadsheet that contained an assortment of UTC paths and their respective day-ahead and real-time price spreads, as well as information about the standard deviation

⁸⁴ See Coaltrain and PJM Data.

⁸⁵ Testimony of Shawn Sheehan, Volume II Tr. 216:17-22 (Oct. 12, 2012) (Sheehan Test. Vol. II); P. Jones Test. Vol. II Ex. 22.

⁸⁶ COALTRAIN007889.

⁸⁷ COALTRAIN007202; Testimony of Adam Hughes Ex. CT-10 (Oct. 10, 2012) (Hughes Test.).

⁸⁸ Miller Test. Ex. CTJM-18 (Google searches); Sheehan Test. Ex. CTS-5.

associated with the day-ahead and real-time markets for each path.⁸⁹ Mr. Robert Jones recalls becoming aware of and discussing MLSA in June 2010 and researching it as well.⁹⁰

42. On June 7, 2010, Mr. Hughes designed a software application to find and analyze potential OCL Trades, and included the following terms in the programming code: “LossStrategy,” “LossFilter,” “LossSorter,” and “LossTester.”⁹¹ On June 15, 2010, he wrote “create application to find deals for loss credits” in Pivotal Tracker, a web-based software tool used for task management.⁹²

43. After this initial period of research and software development, Respondents first began executing OCL Trades during the Manipulation Period on a variety of paths. For example, between June 17, 2010 and July 10, 2010, Coaltrain started scheduling a large volume of UTCs on the East Bend 2-Miami Fort 7 paths.⁹³ During that time, Respondents lost more than \$3,000 on the spreads. However, Coaltrain still earned approximately \$94,000 on these trades because it received more than \$153,000 in MLSA while incurring more than \$55,000 in transaction costs.⁹⁴

44. Over the course of the Manipulation Period, Respondents placed high volumes of the three categories of OCL Trades. When they discovered the SouthImp-Exp and NCMPImp-Exp paths, they turned their focus to those transactions, although they

⁸⁹ Miller Test. Exs. CTJM-30, CTJM-32. Standard deviation is a measure of variation among a set of data points. Higher values indicate more dispersion from the mean, while lower values indicate the data points are, on average, closer to the mean.

⁹⁰ R. Jones Test. Tr. 88:19-25, 140:16-23, 179:12-180:13.

⁹¹ COALTRAIN012638, rows 1216, 1227, 1229.

⁹² *Id.* at row 1951.

⁹³ *See* Coaltrain and PJM Data. This path is an example of a combination trade which permitted Respondents to place a trade between two points that would otherwise be an invalid UTC trade by inserting an interface between the two points, creating two separate trades: A to B placed at the same time as a trade from B to C was the equivalent of a trade from A to C as the two trades at node B canceled each other out. *See infra* PP 59, 178-179.

⁹⁴ *See* Coaltrain and PJM Data.

continued to execute Other OCL Trades as well.⁹⁵ After the IMM raised concerns with Respondents' trading on the SouthImp-Exp and NCMPImp-Exp paths, Respondents returned to focusing on their Other OCL Trades.⁹⁶

45. Unlike Respondents' Spread Trades, which principally relied on constraint analyses to identify opportunities to profit from arbitraging price differences, Respondents' OCL Trades were "not really congestion-based trades."⁹⁷ They focused on paths with little or no price spread between the day-ahead and real-time market.⁹⁸ Instead, Respondents created a series of "secondary constraint" labels in their computer applications that they often associated with OCL Trades.⁹⁹ These labels were not created to identify congestion.¹⁰⁰ Rather, Respondents used the secondary constraint labels to identify paths with little to no changes in price.¹⁰¹ Mr. Wells explained that the "secondary constraint" label was "kind of a misnomer."¹⁰² Specifically, he explained that while primary constraints were "written to identify potential problems between two points," secondary constraints were used where "we've identified points that are

⁹⁵ See generally COALTRAIN003512-3519; COALTRAIN011540.

⁹⁶ See generally COALTRAIN003512-3519; COALTRAIN011540.

⁹⁷ Wells Test. Tr. 32:25-34:17.

⁹⁸ See *id.* Tr. 50:14-22 (testifying that consideration of constraints was an important part of the analysis "for up-to trades that are based on congestion," but explaining that "[a]n up-to trade that is based on low risk has no concern with this at all"). See also *id.* at 61:15-62:6, 170:18-171:12, 209:20-210:5 (describing primary and secondary constraints).

⁹⁹ See, e.g., Wells Test. Ex. 63 ("Not a true constraint, this was selected for the Export OCL plays which all go to OVEC."); Wells Test. Tr. 162:9-19; Coaltrain Suppl. Response to Enforcement's Sept. 9, 2013 Subpoena, Question No. 1 (Aug. 5, 2015) (conceding that the PJM OCL constraint "was not an actual transmission constraint on the PJM system"); Miller Test. Tr. 169:2-18; P. Jones Test. Vol. II Tr.19:14-15, 20:2-11, 34:18-35:7, 47:4-48:3 (stating that the PJM OCL constraint does not relate to constraint analysis); Wells Test. Tr. 99:16-102:7, 179:22-25.

¹⁰⁰ See Wells Test. Tr. 168:4-16.

¹⁰¹ *Id.* Tr. 167:23-168:16; Ex. 68.

¹⁰² *Id.* Tr. 100:16.

returning some type of payout, more so than what it's costing to buy them. But we were doing so with a low risk filter strategy run that was just showing us the points were paying.”¹⁰³

46. Unlike their Spread Strategy, for example, Respondents did not choose to avoid incurring transmission costs by using transmission paths that sunk into MISO. Instead, Respondents increased their transaction costs for the overwhelming majority of the OCL Trades by using paid transmission.¹⁰⁴ During the summer of 2010, Respondents used paid transmission for approximately 100 percent (by volume) of their OCL Trades whereas they used paid transmission for only approximately 18 percent (by volume) of the Spread Trades.¹⁰⁵

47. During the Manipulation Period, Respondents executed more than 11,700 OCL Trades on 40 paths for a total volume of approximately 4.6 million MWh.¹⁰⁶ The average OCL Trade during the Manipulation Period was for approximately 397 MW. Respondents used paid transmission for approximately 99 percent (by volume) of their OCL Trades (which made approximately 99 percent of the MWh in these transactions eligible for MLSA), obtained a clearance rate of approximately 99.5 percent, had an average spread of approximately negative \$0.05 per MWh, and had an average per MWh loss of approximately \$0.84 on the spread value after deducting transaction costs. Overall, their OCL Trades lost more than \$96,000 on the spread value, experiencing approximately \$3.93 million in spread losses after the deduction of transaction costs, but received approximately \$8.05 million in MLSA payments, for a net profit of

¹⁰³ *Id.* Tr. 100:16-22.

¹⁰⁴ Given the ability in PJM to schedule transmission that was not geographically proximate to the UTC path being traded, any of Respondents' OCL Trades could have been placed using free or paid transmission. *See* PJM Response to Enforcement's Fifth Data Request, Question No. 13 (May 2, 2012).

¹⁰⁵ *See* Coaltrain and PJM Data. On June 20-21, 2010, for approximately 2 percent of their SouthImp-Exp OCL Trades, Respondents did not use paid transmission. *Id.* Coaltrain later stated that they believe this had been a mistake and that they had intended to pay demand charges for these trades. Coaltrain Response to Enforcement's Fourth Data Request, Question No. 10 (Jul. 3, 2012).

¹⁰⁶ *See* Coaltrain and PJM Data. To put this volume into perspective, in the previous year – between June 1, 2009 and June 14, 2010 - Respondents cleared approximately 6.66 million MWh of UTCs. *Id.* In other words, in only ten weeks during the summer of 2010, they cleared 69 percent of the previous year's entire volume.

approximately \$4.12 million, after accounting for more than \$3.83 million in transaction costs.¹⁰⁷ Below, we discuss our findings related to each category of OCL Trade.

i. SouthImp-Exp OCL Trades

48. Respondents' largest set of OCL Trades involved trading UTCs between two nodes called SouthImp and SouthExp.¹⁰⁸

49. On June 17, 2010, Mr. Hughes identified for Respondents the zero-spread performance of the SouthImp-Exp path. He did so by using Coaltrain applications including Node Analyzer, which showed that the path consistently had zero day-ahead spreads, an average zero price spread, and minimal, overwhelmingly negative hourly price spreads on one day, for the periods analyzed.¹⁰⁹ Mr. Hughes found similar results using the Lost and Found application which showed the path having an average zero-spread for the period analyzed.¹¹⁰ The same day, Mr. Hughes sent a message to Mr. Sheehan about the SouthImp-Exp path, and Mr. Sheehan responded, "da da perfectly 0."¹¹¹

¹⁰⁷ See Coaltrain and PJM Data.

¹⁰⁸ SouthImp and SouthExp are import and export pricing points of the same PJM interface which have equivalent prices in both the day-ahead and real-time markets. *City Power*, 152 FERC ¶ 61,012 at PP 127-129. Respondents experienced no day-ahead or real-time spreads on this path. See Coaltrain and PJM Data.

¹⁰⁹ See Hughes Test. Ex. CT-47 (June 17, 2010 2:31 PM) (screenshot of Node Analyzer with SouthImp-Exp selected and showing a consistent day-ahead spread of zero, an average price spread of zero and consistently zero hourly price spreads on all days except one day, for the days analyzed); Hughes Test. Tr. 121:7-122:19. See also Hughes Test. Ex. CT-48, COALTRAIN012639, rows 689, 691, 697, 702, 744. Because SouthImp-Exp can be traded in only one direction (from Imp to Exp), a negative price spread means that anyone trading on that path would have lost money when considering only the price spread and transaction costs. Hughes Test. Ex. CT-47.

¹¹⁰ Hughes Test. Ex. CT-46 (Lost and Found screenshot from June 17, 2010, showing zero average spread, as well as a zero average day-ahead and real-time spread and extremely narrow "constraint risk" for the days analyzed).

¹¹¹ *Id.* Ex. CT-55 (June 17, 2010, IM between Messrs. Hughes and Sheehan).

50. Despite observing a lack of spreads on the path, Coaltrain placed 12,000 MWh of trades on the path the next day.¹¹² By the end of June, Respondents' SouthImp-Exp trading had grown to more than 70,000 MWh per day, and frequently exceeded 100,000 MWh per day in July.¹¹³

51. During the Manipulation Period, Respondents, who had never traded on SouthImp-Exp prior to June 2010, executed 6,612 OCL Trades on this path for a total volume of approximately 2.81 million MWh. The average SouthImp-Exp OCL Trade was for approximately 425 MWh. With the exception of two days where they mistakenly did not do so, Respondents used paid transmission for approximately 99 percent (by volume) of their SouthImp-Exp OCL Trades (which made approximately 99 percent of the MWh in these transactions eligible for MLSA), and obtained a clearance rate of approximately 100 percent. They earned \$0 on the SouthImp-Exp spreads, but received approximately \$5.07 million in MLSA payments, for a net profit of approximately \$2.6 million after accounting for \$2.43 million in transaction costs. They continued to trade in this manner for 34 days between June 19 and July 27, 2010 despite the fact that they never made any money from price spread differentials because there was a zero-spread each day they traded the SouthImp-Exp path and the only source of profits was from MLSA.¹¹⁴

52. Respondents stopped executing trades on SouthImp-Exp on July 27, 2010, when PJM's IMM raised concerns with such trading. In a call with the IMM, Mr. Peter Jones agreed that the SouthImp-Exp OCL Trades without price deltas were "inappropriate."¹¹⁵ However, Respondents did not stop their OCL Strategy generally, as they thereafter increased their average daily volume by almost three times on NCMPAImp-Exp.¹¹⁶

¹¹² See Coaltrain and PJM Data.

¹¹³ See *id.*

¹¹⁴ See *id.*

¹¹⁵ COALTRAIN011541 (voice recording) at 6:27 – 6:57 (Aug. 6, 2010).

¹¹⁶ See COALTRAIN003512-3519; COALTRAIN011540.

ii. NCMPAImp-Exp OCL Trades

53. Respondents' second largest set of OCL Trades involved trading UTCs between two nodes called NCMPAImp and NCMPAExp.¹¹⁷

54. Mr. Hughes identified for Respondents the historically minimal price spread on the NCMPAImp-Exp path on June 17, 2010 using the same Node Analyzer and Lost and Found applications used to discover the SouthImp-Exp path.¹¹⁸ He determined from these applications that the NCMPAImp-Exp path yielded minimal price spreads that were well below the transaction costs for such trades.¹¹⁹ After discovering this path, Mr. Hughes alerted Mr. Sheehan about it, just as he had done with SouthImp-Exp.¹²⁰ As Mr. Wells testified, NCMPAImp-Exp was “[a] perfect example of a low-risk trade” because “[i]t looks like it has very little risk.”¹²¹

55. Prior to executing any NCMPAImp-Exp OCL Trades, Respondents proposed testing the path on a “high load/high loss credit day” to see if trades on the path would clear.¹²² After the test proved successful and knowing there was little historical price

¹¹⁷ NCMPAImp and NCMPAExp are import and export pricing points of the same PJM interface, and for which the LMPs were “close to equal.” IMM Referral at 16-17; *see also City Power*, 152 FERC ¶ 61,012 at PP 142-143. While there were sometimes small positive price spreads on this path, they exceeded transaction costs in only 17 out of 230, or 7 percent, of hours Respondents transacted. *See Coaltrain and PJM Data*.

¹¹⁸ *See Hughes Test. Exs. CT-44, CT-45, and CT-46*.

¹¹⁹ *See id. Ex. CT-45 (June 17, 2010 2:29 PM) (screenshot of Node Analyzer with NCMPAImp-Exp selected and showing a negative \$0.03 per MWh average spread for the period analyzed); id. Tr. 117:9-118:1 (recognizing that the data he viewed on June 17, 2010, showed a negative \$0.03 per MWh average spread on NCMPAImp-Exp)*.

¹²⁰ *See id. Ex. CT-55; COALTRAIN012639, row 750*.

¹²¹ Wells Test. Tr. 132:2-13; Wells Test. Ex. 49. *See also Sheehan Test. Vol. II Tr. 242:9-244:11, 260:13-22 (testifying that the firm’s analytical software indicated that the path had a “1-cent difference between the LMP prices” and was “fairly low risk”)*.

¹²² R. Jones Test. Ex. CT-RJ 126 (On July 2, 2010, Mr. Robert Jones proposed conducting a “meg tester for a high load/high loss credit day” on NCMPAImp-Exp.). As Robert Jones explained, a “meg tester” involves “[b]idding to see if we could clear megs between the two interfaces.” R. Jones Test. Tr. at 203:21-24.

spread risk on these trades and little opportunity for the spread to exceed the transaction costs especially including paid transmission, Respondents began executing trades using paid transmission, trading on the path for 17 days between July 8 and July 31, 2010.¹²³

56. On July 8, 2010, the first day they executed trades on NCMPAImp-Exp, Respondents executed 13,000 MWh of trades.¹²⁴ During the 17 days they traded on the path, they averaged 64,000 MWh per day, and exceeded 110,000 MWh per day on each of the last four days in July.¹²⁵

57. During the Manipulation Period, Respondents, who had never traded on NCMPAImp-Exp prior to July 2010, executed 1,649 OCL Trades on this path for a total volume of approximately 1.088 million MWh. The average NCMPAImp-Exp OCL Trade was for approximately 660 MWh. Respondents used paid transmission for approximately 100 percent (by volume) of their NCMPAImp-Exp OCL Trades (which made approximately 100 percent of the MWh of these transactions eligible for MLSA) and obtained a clearance rate of approximately 100 percent. They had an average spread of approximately \$0.11 per MWh, and had an average per MWh loss of approximately \$0.71 when transaction costs are included (without MLSA).¹²⁶ They paid approximately \$893,000 in transaction costs, but received approximately \$1.79 million in MLSA payments, for a net profit of approximately \$1.02 million. They continued to trade in this manner for 230 hours between July 8 and July 31, 2010 despite the fact that they lost more than \$700,000 based on the spreads and transaction costs from their NCMPAImp-Exp OCL Trades.¹²⁷

58. Respondents stopped executing trades on NCMPAImp-Exp on July 31, 2010, when PJM's IMM raised concerns with such trading.¹²⁸ As with the SouthImp-Exp OCL Trades, the IMM's call prompted Respondents to stop trading NCMPAImp-Exp, but they did not stop their OCL Strategy entirely, as they thereafter increased their average daily

¹²³ See COALTRAIN003512-3519; COALTRAIN011540.

¹²⁴ See Coaltrain and PJM Data.

¹²⁵ See *id.*

¹²⁶ See *id.*

¹²⁷ See *id.*

¹²⁸ COALTRAIN000319 (Coaltrain notes regarding a July 30, 2010 call with the IMM).

volume on the Other OCL Trades. Prior to August 1, 2010, Respondents' average volume on OCL Trade paths other than SouthImp-Exp and NCMPAImp-Exp was 11,000 MWh per day. Between August 1 and September 2, 2010, their average volume on the Other OCL Trades doubled to 22,000 MWh per day.¹²⁹

iii. Other OCL Trades

59. Respondents' remaining OCL Trades involved placing trades on 38 other paths (Other OCL Trades). Like their SouthImp-Exp and NCMPAImp-Exp OCL Trades, Respondents marked these paths "OCL." The trades were similar to the SouthImp-Exp and NCMPAImp-Exp OCL Trades in that they were placed for the purpose of garnering MLSA payments, but they had two distinctions. First, while the SouthImp-Exp and NCMPAImp-Exp nodes had perfectly zero price spreads and minimal average price spreads respectively,¹³⁰ the Other OCL Trades had larger absolute price spreads; nonetheless, on average the price spread was negative \$0.30 per MWh.¹³¹ They lost money overall on the price spread on this group of trades, which losses were increased by transaction costs.¹³² Second, while the SouthImp-Exp and NCMPAImp-Exp nodes involved single path trades (i.e., A to B), some of the Other OCL Trades involved combination trades (i.e., A to B and then B to C) which would cancel out parts of each leg of the combined trade.¹³³

¹²⁹ COALTRAIN003512-3519.

¹³⁰ See Coaltrain and PJM Data.

¹³¹ See *id.*

¹³² See *id.*

¹³³ A combination trade, also called a "combo mombo" by Respondents, involves selecting a path between two nodes—"A" and "C"—and then splitting it into two separate trades using a common interface—"B"—so that the trade appears as two transactions, A to B and B to C. Miller Test. Tr. 126:22-127:8 ("We had a term called 'combo-mombo,' just a made-up term. One of the traders I believe made it up. In order to do [UTC] at this time, you always had to have an Interface. So say you wanted to go from this Up-To point to this Up-To point, you would have to have the same interface in between. You would maybe go, say this is Rockport to, he says, Southwest. And then you would do Southwest to AK Steel, when you'd really be doing Rockport to AK Steel."); P. Jones Test. Vol. II 77:21-78:4.

60. As with the SouthImp-Exp and NCMPImp-Exp OCL Trades, MLSA payments were the focus of Respondents' analysis for the Other OCL Trades. For example, on August 15, 2010, Mr. Wells stated that a trade from CPLEImp to NCMPEmp, which showed average UTC spreads of negative and positive \$0.02 per MWh on the last two days was "definitely worth playing" because "[l]ooking at like days for tomorrow I get 6-21 which posted a 1.5 loss credit."¹³⁴ On August 22, 2010, although his own analysis showed UTC losses based on the average negative spreads of \$0.19 per MWh and \$0.12 per MWh for the last two days, respectively, Mr. Wells proposed an "OCL play" for a combination trade at OVEC-Miami Fort 8, commenting that a "like day" limiting the hours to 10 through 22 showed that "[l]oss Credits were 1.5 which is reasonable."¹³⁵

61. During the Manipulation Period, Respondents executed 3,457 Other OCL Trades for a total volume of approximately 749,146 MWh. The average Other OCL Trades transaction was for approximately 217 MWh. Respondents used paid transmission for approximately 99 percent (by volume) of their Other OCL Trades (which made approximately 99 percent of the MWh of these transactions eligible for MLSA), and obtained a clearance rate of approximately 97 percent. They had an average spread of approximately negative \$0.30 per MWh, and had an average per MWh loss of approximately \$0.98 (without MLSA). They lost approximately \$221,000 from spreads on the Other OCL Trades, paid approximately \$512,000 in transaction costs, but received approximately \$1.18 million in MLSA payments, for a net profit of approximately \$452,000.¹³⁶

2. **Relevant Conduct Related to Coaltrain's False and Misleading Statements and Material Omissions to OE Staff**

62. Coaltrain had documents from a software application called Spector 360¹³⁷ that it knew about, but failed to produce to OE Staff in response to OE Staff's Second Data

¹³⁴ Wells Test. Ex. 89. Mr. Wells testified that a "like day would be a similar day, say, load wise, similar day temperature wise. You think that the electricity usage is going to be comparable." Wells Test. Tr. 197:16-19. In this screenshot, Mr. Wells concludes a like day to proposed trade day August 16, 2010 is June 21 and he notes on that like day MLSA was \$1.50 per MWh.

¹³⁵ Wells Screenshot 99 (Snapshot 72655 Aug. 22, 2010 10:21:26 am).

¹³⁶ See Coaltrain and PJM Data.

¹³⁷ Spector 360 is a software monitoring application that automatically recorded everything employees did on their work and home computers including typing IMs and

(continued...)

Request and subsequent data requests.¹³⁸ This software was loaded on the work and home computers of everyone at Coaltrain except Messrs. Peter Jones and Sheehan.¹³⁹ Despite knowing about this data, Mr. Peter Jones repeatedly attested that Coaltrain's responses (withholding the data) were "true, complete, and accurate."¹⁴⁰ OE Staff learned about Spector 360 from a reference in a document produced by Coaltrain¹⁴¹ and then specifically requested Spector 360 documents in its Fifth Data Request.¹⁴²

63. Coaltrain employees were very familiar with Spector 360 during the general period when it withheld documents from OE Staff. For example, prior to receiving OE Staff's Second Data Request asking for relevant documents, Messrs. Peter Jones and Sheehan used the detailed information obtained from the software to terminate an employee in 2010.¹⁴³ Mr. Peter Jones updated his access credentials for the software in May 2010.¹⁴⁴

64. On November 19, 2010, after receiving OE Staff's Second Data Request dated November 5, 2010 requesting relevant documents, Mr. Hughes emailed Messrs. Peter Jones and Sheehan "to let [them] know that [he] logged into Spector this morning to view

emails, using applications, and internet activity. It separately made screenshots of employees' monitors approximately every twenty seconds.

¹³⁸ Sheehan Test. Vol. I Tr. 91:19-92:3.

¹³⁹ *Id.* Tr. 84:13-15; P. Jones Test. Vol. II Tr. 132:21-25.

¹⁴⁰ *See, e.g.*, Coaltrain Letter and Affidavit to Response to Enforcement's Amended Second Data Request (Feb. 3, 2011); Coaltrain Letter and Affidavit to Response to Enforcement's Third Data Request (May 25, 2012).

¹⁴¹ COALTRAIN000812 (June 2010 Delaware Department of Labor form in which Mr. Peter Jones justified termination of employee based on information he learned from Spector 360 software).

¹⁴² *See* Enforcement's Fifth Data Request to Coaltrain, Question No. 1 (July 3, 2012) ("Produce complete copies of all data recorded by Coaltrain Energy's . . . Spector 360 security monitoring software." (emphasis in original)).

¹⁴³ *See supra* note 141; Sheehan Test. Vol. I Tr. 85:19-86:2.

¹⁴⁴ *See* COALTRAIN008250.

the activity on the computer in the team room.”¹⁴⁵ In addition, Mr. Hughes, who was responsible in part for responding to OE Staff’s data requests, communicated with Spector 360 support staff in January 2011.¹⁴⁶ Messrs. Peter Jones and Sheehan installed Spector 360 or programs similar to Spector 360 at their new companies.¹⁴⁷ When Mr. Hughes joined Mr. Sheehan at Mr. Sheehan’s new company in April 2011, they coordinated with the IT employees who had joined Mr. Peter Jones at his new company to backup and migrate the Spector 360 data to Mr. Peter Jones’ new company.¹⁴⁸

65. And even after receiving OE Staff’s Fifth Data Request, which specifically demanded the Spector 360 documents,¹⁴⁹ Coaltrain still tried to withhold the documents by falsely claiming that it could not access the Spector 360 data because it no longer had a license to it.¹⁵⁰ Coaltrain, however, had downloaded and reviewed data from Spector 360 only two weeks prior to making that response.¹⁵¹ Thus, regardless of the status of its license, Coaltrain had begun exporting Spector 360 data as late as July 5, 2012—two days after receiving OE Staff’s data request—but failed to produce that information. Coaltrain did not agree to produce Spector 360 materials until OE Staff secured for Coaltrain a copy of the software license.¹⁵²

¹⁴⁵ COALTRAIN0011640.

¹⁴⁶ SpectorSoft0002-0003.

¹⁴⁷ See Second Amended Complaint at ¶ 17, ECF No. 18, *XO Energy LLC v. Zhao*, No. 4:15-CV-00599 (S.D. Tex. April 5, 2015).

¹⁴⁸ COALTRAIN011610.

¹⁴⁹ See *supra* note 142.

¹⁵⁰ Coaltrain Response to Enforcement’s Fifth Data Request, Question No. 1 (July 20, 2012).

¹⁵¹ COALTRAIN011649 (July 5, 2012 email between Gary Wrinn and Peter Jones regarding Wrinn’s efforts to export the Spector 360 data and store it on Coaltrain servers).

¹⁵² Coaltrain Response to Enforcement’s Fifth Data Request, Question No. 1 (July 20, 2012).

B. Determination of Violations

66. This matter involves allegations that Respondents violated section 222 of the FPA, which states that:

It shall be unlawful for any entity . . . directly or indirectly, to use or employ, in connection with the purchase or sale of electric energy or the purchase or sale of transmission 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 or appropriate in the public interest or for the protection of electric ratepayers.¹⁵³

67. The Commission implemented this broad statutory language in the Anti-Manipulation Rule, which makes it unlawful “(1) [t]o use or employ any device, scheme, or artifice to defraud, (2) [t]o make any untrue statement of a material fact or to omit 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) [t]o engage in any act, practice, or course of business that operates or would operate as a fraud or deceit upon any entity.”¹⁵⁴ As discussed below, we find, based on the totality of the evidence, that Respondents’ conduct during the Manipulation Period satisfies each element of the Anti-Manipulation Rule and that Respondents violated section 222 of the FPA and the Anti-Manipulation Rule. Below, we describe the evidence establishing each element and address Respondents’ arguments.

1. Fraudulent Device, Scheme or Artifice or Course of Business that Operated as a Fraud

68. Fraud is the first element necessary to establish a violation of the Commission’s Anti-Manipulation Rule.¹⁵⁵ Fraud is a question of fact that must be determined based on the particular circumstances of each case.¹⁵⁶ The Commission has explained that, under the Anti-Manipulation Rule, fraud includes, but is not limited to, “any action, transaction,

¹⁵³ 16 U.S.C. § 824v(a) (2012).

¹⁵⁴ 18 C.F.R. § 1c.2 (2015).

¹⁵⁵ Order No. 670, FERC Stats. & Regs. ¶ 31,202 at P 49.

¹⁵⁶ *Id.* P 50.

or conspiracy for the purpose of impairing, obstructing, or defeating a well-functioning market.”¹⁵⁷

69. In light of the broad language of section 222 of the FPA and the Anti-Manipulation Rule, our use of the term “well-functioning market” is not limited just to consideration of price or economically efficient outcomes in a market.¹⁵⁸ Instead, we view the term to also broadly include consideration of “such rules and regulations as the Commission may prescribe as necessary or appropriate,”¹⁵⁹ which necessarily includes the rates, terms, and conditions of service in a market. Here, as we have in prior orders involving similar conduct, we find that intentionally subverting the allocation of payments provided by a Commission-approved tariff constitutes interference with a “well-functioning market.”¹⁶⁰

70. OE Staff alleges that during the Manipulation Period, Respondents engaged in a series of practices that operated as a fraud or deceit on PJM and PJM market participants and that Respondents’ actions constituted a course of business that operated as a fraud, or a fraudulent device, scheme, or artifice, thereby violating FPA section 222 and the Anti-Manipulation Rule.¹⁶¹

71. As discussed below, based on the totality of evidence, we find that Respondents’ OCL Strategy during the Manipulation Period operated as a course of business to defraud and a device, scheme, or artifice to defraud the PJM market and market participants.¹⁶² The evidence demonstrates that Respondents placed high-volume UTC trades in

¹⁵⁷ *Id.*

¹⁵⁸ See *Chen*, 151 FERC ¶ 61,179 at P 49; *City Power*, 152 FERC ¶ 61,012 at P 59.

¹⁵⁹ 16 U.S.C. § 824v(a) (2012).

¹⁶⁰ See *Chen*, 151 FERC ¶ 61,179 at P 49; *City Power*, 152 FERC ¶ 61,012 at P 59.

¹⁶¹ See, e.g., Staff Report at 18-63, 72-102; see generally Staff Reply *passim*.

¹⁶² While OE Staff alleges that Respondents’ actions constituted both a “course of business to defraud” and a scheme to defraud—each in violation of section 222 of the FPA and the Anti-Manipulation Rule—OE Staff’s submissions frequently address the acts solely as a scheme. We find both occurred and rely on the same evidence to support each finding.

furtherance of the OCL Strategy without regard to market fundamentals and with the intent to benefit not from the spread on those UTC trades but solely or primarily from the MLSA payments, and we find those actions to constitute fraud. We make this finding with respect to each Respondent and find that each Respondent participated in this scheme by participating in a substantial way in the scheme and acts of fraud against the PJM market and its market participants. In addition, we find that Respondents had notice that the type of trading at issue here is fraudulent and violates FPA section 222 and the Anti-Manipulation Rule.

a. **Course of Business to Defraud and Device, Scheme or Artifice to Defraud**

i. **Respondents' Answers**

72. Respondents argue that their OCL Trades were not fraudulent for many reasons, including: their OCL Strategy was not deceptive;¹⁶³ they had no knowledge of the workings of the SouthImp-Exp nodes and they had observed price divergences;¹⁶⁴ none of the OCL Trades were wash trades;¹⁶⁵ the OCL Trades possessed risk, including volatile price spreads, volatile MLSA credits, and transaction risk;¹⁶⁶ market fundamentals drove their OCL Strategy decisions;¹⁶⁷ they hedged against trade risk;¹⁶⁸ the OCL Trades were not made for the purpose of collecting MLSA and were consistent with Commission precedent;¹⁶⁹ and the OCL Trades did not impact ATC, dispatch, or

¹⁶³ Answer of Coaltrain and Individual Respondents at 2, 18-19.

¹⁶⁴ *Id.* at 53-55; Answer of P. Jones, R. Jones, and Wells at 18-19.

¹⁶⁵ Answer of Coaltrain and Individual Respondents at 2, 5, 19-20.

¹⁶⁶ *Id.* at 25-32; Answer of P. Jones, R. Jones, and Wells at 15-16, 34-36.

¹⁶⁷ Answer of Coaltrain and Individual Respondents at 3, 24-32, 37-40; Answer of P. Jones, R. Jones, and Wells at 12-14, 33-34.

¹⁶⁸ Answer of Coaltrain and Individual Respondents at 32; Answer of P. Jones, R. Jones, and Wells at 12-14, 33-34.

¹⁶⁹ Answer of Coaltrain and Individual Respondents at 35-36; Answer of P. Jones, R. Jones, and Wells at 4-5, 20, 32-33, 37-38.

market prices.¹⁷⁰ In addition, Respondents argue they had no notice of any potential violation¹⁷¹ and their trading was not contrary to any tariff provision.

73. Respondents describe their OCL Strategy as one in which “low-risk,” low reward trades were pursued and submitted in comparatively large volumes relative to trades with more risk.¹⁷² Respondents state that “low-risk” trading is not manipulative under section 222 of the FPA or section 10(b) of the Securities Exchange Act.¹⁷³

74. Respondents allege that the OCL Trades possessed real risk and therefore are not manipulative. They note in support thereof that OE Staff’s calculations demonstrate the OCL Trades “lost money on 25% of the paths” and “turned a profit on the UTC price spreads on 13 of the 40 paths (33%) before accounting for MLSA.”¹⁷⁴ Among the risks Respondents claim their OCL Trades were exposed to was price spread volatility.¹⁷⁵ Respondents allege that OE Staff improperly focuses on “average” price spreads of the trades rather than volatility of those price spreads. They state that the greater the volatility and, thus, variance in outcomes, the greater the financial risk.¹⁷⁶

75. Respondents assert that their trades also were exposed to risk related to the volatility of MLSA credit values. They criticize OE Staff for instead focusing on MLSA averages.¹⁷⁷ They assert that the evidence demonstrates that Coaltrain could neither estimate nor anticipate MLSA credits with a high degree of accuracy.¹⁷⁸ Respondents

¹⁷⁰ Answer of Coaltrain and Individual Respondents at 63-67; Answer of P. Jones, R. Jones, and Wells at 35-37.

¹⁷¹ Answer of Coaltrain and Individual Respondents at 5, 22-24, 36, 53-55; Answer of P. Jones, R. Jones, and Wells at 16-17.

¹⁷² Answer of Coaltrain and Individual Respondents at 12-13.

¹⁷³ *Id.* at 21-23.

¹⁷⁴ *Id.* at 25-26.

¹⁷⁵ *Id.* at 27-30.

¹⁷⁶ *Id.* at 27.

¹⁷⁷ *Id.* at 30-31.

¹⁷⁸ *Id.*

also allege that the OCL Trades were exposed to transaction risk of the trade not clearing.¹⁷⁹ To substantiate their position that Coaltrain viewed the OCL Trades as being subject to risk, Respondents claim that they executed other trades to hedge risk.¹⁸⁰

76. Respondents argue that market fundamentals, not MLSA, drove Coaltrain's OCL Trades and that this, in turn, demonstrates that Coaltrain viewed the trades as possessing risk.¹⁸¹ In support thereof, Respondents cite evidence showing their examination of constraints related to OCL Trades.¹⁸² They also rely on testimony by Messrs. Sheehan and Peter Jones denying that the OCL Trades were conducted for the sole or driving purpose of gaining MLSA and instead asserting that various market fundamentals were considered.¹⁸³

77. Respondents claim that designating certain trades as "OCL" in Coaltrain's internal systems means the trades were considered "low-risk strategies" eligible for MLSA credits¹⁸⁴ not that they were manipulative. They also claim that OE Staff wrongly applies a definition of OCL Trades that includes trades that were not labeled by Coaltrain as OCL.¹⁸⁵ Respondents argue that this contradicts OE Staff's claim that all the trades at issue were identified by Respondents as OCL Trades and calls into question OE Staff's theory concerning which trades were manipulative.

78. Respondents allege that it was "economically rational" to take all costs and credits into account, including MLSA credits, when placing their OCL Trades and that to "the extent possible, economically rational traders will incorporate all available information to evaluate the costs, benefits and risks of trades."¹⁸⁶ Respondents argue that when the Commission approved the MLSA allocation methodology proposed by PJM in 2010, the

¹⁷⁹ *Id.* at 31-32.

¹⁸⁰ *Id.* at 32.

¹⁸¹ *Id.* at 13-14, 32, 37-45.

¹⁸² *Id.* at 13-14, 37-40.

¹⁸³ *Id.* at 38-39.

¹⁸⁴ *Id.* at 37.

¹⁸⁵ *Id.* at 46-47.

¹⁸⁶ *Id.* at 24-25, 32.

Commission did not state that MLSA could not be considered when entering a UTC trade.¹⁸⁷ Moreover, Respondents argue that Coaltrain's OCL Strategy was consistent with behavior that the Commission has found acceptable.¹⁸⁸

79. Respondents argue that it was economically rational to pay for transmission and that doing so was contemplated by the PJM tariff.¹⁸⁹ Respondents also reject OE Staff's argument that the small spreads and high volume of the OCL Trades equate with a finding that the trades were meant to capture MLSA.¹⁹⁰

80. Respondents also argue that it is a violation of the Due Process Clause to pursue "low-risk" trading as manipulative due to the lack of "fair notice" that such trading is unlawful.¹⁹¹ They allege that no reasonable person could have predicted that the Commission would retroactively outlaw UTC trades "associated with MLSA, executed in compliance with a tariff, when the Commission in *Black Oak* specifically required PJM to revise its tariff to provide MLSA in connection with UTCs associated with paid transmission reservations."¹⁹²

81. Messrs. Miller and Sheehan argue that they did not commit fraud for reasons specific to their own actions, including: they never executed OCL Trades; they cannot be held accountable for any alleged bad acts because the Commission does not have aiding and abetting authority and the individuals were not primary actors; and certain of Mr. Sheehan's trades were only later reclassified on internal systems as OCL.¹⁹³

¹⁸⁷ *Id.* at 32.

¹⁸⁸ *Id.* at 35-37 (citing *N.Y. Indep. Sys. Operator, Inc.*, 128 FERC at 61,255 (2009); *MISO Virtual and FTR Trading*, 146 FERC ¶ 61,072, at P 9 (2014); *Deutsche Bank Energy Trading, LLC*, 142 FERC ¶ 61,056 (2013) (*Deutsche Bank*); *Blumenthal v. ISO New England, Inc.*, 132 FERC ¶ 61,017, at P 42 (2010) (Young, J.); *aff'd* 135 FERC ¶ 61,117 (2011), *reh'g denied*, 138 FERC ¶ 61,013 (2012)).

¹⁸⁹ Answer of Coaltrain and Individual Respondents at 51-52.

¹⁹⁰ *Id.* at 34-35.

¹⁹¹ *Id.* at 22-24.

¹⁹² *Id.* at 23-24.

¹⁹³ Answer of Sheehan, Miller, and Hughes at 1, 5-6, 7, 14-22.

82. Respondents make allegations that various data, screenshots, and communications were misapprehended or misrepresented by OE Staff as to them individually and Respondents as a whole.¹⁹⁴

ii. OE Staff Report and Reply

83. OE Staff alleges that the OCL Strategy was manipulative, because, like those schemes addressed in the Commission's *City Power* and *Chen* Orders, it constituted a scheme to engage in fraudulent UTC transactions "to garner excessive amounts of certain credit payments to transmission customers."¹⁹⁵ OE Staff alleges that all of the trades at issue in the Staff Report were placed pursuant to a "single, overarching OCL Strategy to make low-cost, zero or near-zero risk trades in which the risk (and profit) associated with arbitrage based on price differentials was effectively nullified."¹⁹⁶

84. OE Staff alleges that Respondents' OCL Trades were fraudulent because they were aimed not at profiting from the spreads on the underlying trades but rather at collecting MLSA payments and that the large profits derived from these trades were "entirely driven by MLSA payments."¹⁹⁷ OE Staff asserts that the OCL Trades "consistently (and predictably)" lost money on the price spread net transaction costs and that Respondents knew that the trades would do so.¹⁹⁸ OE Staff alleges that, nonetheless, Respondents repeatedly and continually placed large volumes of OCL Trades day-after-day during the Manipulation Period in order to garner MLSA payments. OE Staff states that Respondents elected to purchase transmission for most of the OCL Trades, thereby increasing their transaction costs, but also ensuring the trades qualified for MLSA.¹⁹⁹

85. OE Staff asserts that Respondents called this fraudulent strategy the "OCL Strategy"²⁰⁰ and that the fraudulent trades were divided into three categories, trades on:

¹⁹⁴ Answer of Coaltrain and Individual Respondents at 40, 45; Answer of Sheehan, Miller, and Hughes at 1-2, 11, 15; Answer of P. Jones, R. Jones, and Wells at 5-14.

¹⁹⁵ Staff Report at 72.

¹⁹⁶ *Id.*

¹⁹⁷ *See, e.g., id.* at 3, 18.

¹⁹⁸ *See, e.g., id.* at 3, 18-19.

¹⁹⁹ *See, e.g., id.* at 19.

²⁰⁰ *Id.* at 3, 18.

(1) the SouthImp-Exp path, which OE staff alleges had a “consistent, and predictable, zero spread,” (2) the NCMPAImp-Exp path, which OE Staff alleges had “a consistent, predictably negligible spread far too small to constitute price arbitrage,” and (3) 38 “Other” OCL paths, which OE Staff alleges “also had negligible or even negative price spreads.”²⁰¹ OE Staff also alleges that the volume of OCL Trades greatly exceeded Respondents’ Spread Trades during the summer of 2010, even after Respondents stopped trading SouthImp-Exp and NCMPAImp-Exp.²⁰²

86. OE Staff alleges that each Respondent played a critical role in the scheme. According to OE Staff, Messrs. Peter Jones, Robert Jones, Wells, and Sheehan each executed OCL Trades and Mr. Miller played important roles in identifying, planning, devising, and directing the scheme.²⁰³

(a) **The Learning Phase**

87. OE Staff alleges that when Respondents began implementing the OCL Strategy on June 15, 2010, they did so with small volumes while “learning what paths worked best . . .”²⁰⁴ OE Staff asserts that during this early period, Respondents tried to identify trades for the OCL Strategy that were low-cost, had zero or negligible risk, and promised to return more in MLSA payments than the net of the price spread and the transaction costs.²⁰⁵

(b) **Respondents’ Three Categories of OCL Trades**

88. OE Staff alleges that Respondents’ SouthImp-Exp, NCMPAImp-Exp, and Other OCL Trades were fraudulent and manipulative trades and part of Respondents’ manipulative OCL Strategy.²⁰⁶ OE Staff alleges that SouthImp-Exp was a path between

²⁰¹ *Id.* at 3, 72-73.

²⁰² *Id.* at 36.

²⁰³ *See, e.g., id.* at 40, 75, n.299, 76, 82, 86.

²⁰⁴ *Id.* at 41-42.

²⁰⁵ *Id.* at 41-42.

²⁰⁶ *Id.* at 42, 75, 50, 53-54.

the same two points on which price spreads were not possible except by human error.²⁰⁷ They argue that Respondents analyzed this path and knew that it would not produce profits from arbitraging price differentials but Respondents understood that if a price divergence appeared, they would not lose much money.²⁰⁸ During the time Respondents traded SouthImp-Exp, OE Staff asserts they experienced neither profits nor losses on the spread. Nonetheless, OE Staff alleges, Respondents continued to reserve hundreds of thousands of MWh of paid transmission for the trades, day-after-day, for more than six weeks.²⁰⁹

89. OE Staff alleges that Respondents' NCMPAImp-Exp OCL Trades were the "next best" category of Respondents' OCL Trades, after the SouthImp-Exp OCL Trades.²¹⁰ OE Staff alleges that while the NCMPAImp-Exp path often had tiny price spreads because of the way the import and export portions of the interface were defined, these spreads were unprofitable.²¹¹ OE Staff observes that Respondents began placing the NCMPAImp-Exp OCL Trades after they had been placing their SouthImp-Exp and Other OCL Trades for some time, and then trebled their trading volume on this path (to nearly 140,000 MWh per day) after the IMM asked them to stop placing their SouthImp-Exp OCL Trades.²¹² OE Staff notes that Respondents' NCMPAImp-Exp OCL Trades made a small amount of money in spread gains, but that those profits were not enough to cover basic transaction costs.²¹³ By paying for transmission, OE Staff states that Respondents increased their losses on the NCMPAImp-Exp OCL Trades.²¹⁴

90. OE Staff alleges that the Other OCL Trades, while not as successful as the SouthImp-Exp and NCMPAImp-Exp OCL Trades, were executed pursuant to the same overarching scheme and had a slightly negative spread on average. However, despite the

²⁰⁷ *Id.* at 75.

²⁰⁸ *Id.* at 75-76.

²⁰⁹ *Id.* at 75-76.

²¹⁰ *Id.* at 81-85.

²¹¹ *Id.* at 81.

²¹² *Id.* at 81-83.

²¹³ *Id.* at 81-82.

²¹⁴ *Id.* at 82.

repeated losses, OE Staff alleges Respondents continued to trade on these paths, demonstrating that the trades were designed to capture MLSA.²¹⁵

91. OE Staff argues that these three categories of OCL Trades were fraudulent because they were inconsistent with the fundamentals of supply and demand,²¹⁶ there existed a marked difference between Respondents' non-manipulative Spread Strategy and the three categories of OCL Trades,²¹⁷ and Respondents' three categories of OCL Trades were uneconomic and contrary to the PJM UTC market design purpose.²¹⁸

92. OE Staff continues by stating that each Respondent participated in the three categories of manipulative OCL Trades, for example by executing the trades, identifying and analyzing the trades, planning, researching, devising or supervising the strategy, and/or directing others to execute trades on the path.²¹⁹

(c) **OE Staff's Responses to Respondents' Arguments**

93. OE Staff claims that Respondents' defenses are not persuasive.²²⁰ Specifically, OE Staff counters Respondents' arguments that Coaltrain's OCL Trades were: (i) economically rational;²²¹ (ii) transparent;²²² (iii) devoid of fraud or deceit;²²³ (iv) compliant with tariff requirements;²²⁴ (v) caused no harm to the market;²²⁵ and

²¹⁵ *Id.* at 61, 85-89.

²¹⁶ *Id.* at 76-80, 83, 86-88.

²¹⁷ *Id.* at 80, 84, 88-89.

²¹⁸ *Id.* at 81, 85, 89.

²¹⁹ *Id.* at 76, 82, 86.

²²⁰ *Id.* at 93-102.

²²¹ *See, e.g., id.* at 78-79, 83.

²²² *Id.* at 94.

²²³ *Id.*

²²⁴ *Id.*

²²⁵ *See, e.g., id.* at 95, 102.

(vi) not uneconomic because some of the paths, like NCMPAImp-Exp, made some profit on the price spread.²²⁶ In addition, OE Staff takes issue with Respondents' claim that they were unaware that SouthImp-Exp was electrically equivalent until the IMM told them in late July 2010.²²⁷

94. OE Staff denies that it applies a novel definition of market manipulation, arguing that it did not allege that low-risk trades were manipulative per se. Instead, OE Staff states the issue is whether the trades were made in accordance with market fundamentals and it did not make a manipulation determination based on a quantum of risk.²²⁸ OE Staff further alleges that Respondents' OCL Trades were uneconomic with little upside or downside, and that Respondents knew this.²²⁹

95. OE Staff refutes Respondents' argument that the universe of alleged OCL Trades exceeds those identified by Respondents in a data response. OE Staff notes that the trades identified by Respondents as OCL Trades were modified by OE Staff to exclude trades ineligible for MLSA and to include MLSA-eligible trades made during the Manipulation Period on paths Respondents identified as OCL paths.²³⁰ OE Staff also alleges that the arguments raised by Respondents' economic expert are incorrect.²³¹

96. OE Staff counters Respondents' arguments that their OCL trading incorporated constraints, hedges, and market fundamentals by pointing out that OE Staff did not allege that Respondents failed to conduct fundamentals research.²³² OE Staff asserts, for example, that some research would be necessary to identify paths attractive for the scheme.²³³

²²⁶ *Id.* at 93-94,

²²⁷ *Id.* at 93-94; Staff Reply at 15.

²²⁸ Staff Reply at 16-18, 44-45.

²²⁹ *Id.* at 18-20.

²³⁰ *Id.* at 5-7.

²³¹ Staff Report at 94-95; Staff Reply at 21-44.

²³² Staff Reply 7-13, 45-53.

²³³ *Id.*

97. Moreover, OE Staff argues that the Commission rejected similar arguments that the OCL trades were not deceptive in *Chen* and *City Power*.²³⁴ OE Staff also counters Respondents' arguments that the Commission's orders in *Chen* and *City Power* are inapplicable to their trading.²³⁵ Specifically, OE Staff notes that the manipulative purpose involved in the *Chen* and *City Power* trading was precisely the same as Respondents' manipulative purpose: to engage in sham UTC trades in order to collect MLSA payments.²³⁶

98. OE Staff also argues that notice arguments similar to Respondents' were rejected by the Commission in *City Power*.²³⁷ and that the evidence here demonstrates that Respondents knew that they were engaging in fraudulent and manipulative conduct.²³⁸ OE Staff further notes that Respondents concealed their plans and made misleading statements to the Commission in the *Black Oak* proceeding, demonstrating that they knew their OCL Trades were "outside the bounds of legitimate trading."²³⁹

99. OE Staff rejects Respondents' argument that certain of the named individual Respondents should not be liable because they did not execute any of the OCL Trades and because one executed those trades before they were labeled as OCL Trades.²⁴⁰ OE Staff contends that this is an incorrect statement of the law, and, points to the Commission's holding in *Silkman* that "market manipulation is a scheme, and anyone who actively participates in the manipulative scheme – not just those who actually execute the trades – may be held liable."²⁴¹ According to OE Staff, each of the

²³⁴ Staff Report at 94 (citations omitted).

²³⁵ *Id.* at 97-100; Staff Reply at 17, 46-48.

²³⁶ Staff Report at 97-99; Staff Reply at 17, 46-48.

²³⁷ Staff Report at 100-101; Staff Reply at 17-19 (citing *City Power*, 152 FERC ¶ 61,012).

²³⁸ Staff Report at 100-101; Staff Reply 17-19.

²³⁹ Staff Reply at 17-19.

²⁴⁰ Staff Report at 101-102.

²⁴¹ *Id.* (citing *Richard Silkman*, 144 FERC ¶ 61,164, at PP 43-45, 71-74 (2013)).

Respondents acted and should be held liable as a primary violator and not as an aider and abettor in the scheme.²⁴²

100. OE Staff also argues that the Commission has already rejected the argument that trades identical to the OCL Trades do not “impair[], obstruct[], or otherwise defeat[] a well-functioning market.”²⁴³ Furthermore, OE Staff asserts that the Commission also rejected the argument that loss trades did not prevent others from obtaining transmission.

iii. Commission Determination

101. Based on the totality of the Record, we find that Respondents engaged in a course of business to defraud and a device, scheme, or artifice to defraud the PJM market. As discussed in greater detail below, we find that: (i) there is sufficient evidence that Respondents’ actions constituted fraud under section 222 of the FPA and the Anti-Manipulation Rule; and (ii) Respondents’ contrary arguments are not persuasive. Specifically, the evidence demonstrates that Respondents engaged in their OCL Strategy not to hedge or arbitrage price spreads but instead to receive large shares of MLSA payments that otherwise would have been allocated to other market participants. Moreover, Respondents’ high volumes of OCL Trades had wide ranging impacts on the market, as will be described in greater detail below.²⁴⁴

102. This is the third Commission order assessing civil penalties issued in the past year finding that respondents engaged in a course of business and a device, scheme, or artifice to defraud the PJM market related to fraudulent, manipulative, and improper UTC trading.²⁴⁵ While Respondents attempt to distinguish their trading from the trading we found fraudulent in *Chen* and *City Power* and argue that those orders do not have precedential value here, we find these arguments to be without merit. As we set forth in greater detail below, while Respondents did not engage in “round-trip” trades, which were considered in *Chen* and *City Power*, Respondents’ scheme to defraud the PJM market by trading UTCs with MLSA payments as their sole or primary price signal is the same scheme considered in those orders and the manner in which Respondents pursued that scheme is substantially similar to the schemes at issue in those orders. Moreover,

²⁴² Staff Reply at 60-64.

²⁴³ Staff Report at 102 (citing *City Power*, 152 FERC ¶61,012 at P 166; *Chen*, 151 FERC ¶61,179 at P 118).

²⁴⁴ See *infra* PP 303-309.

²⁴⁵ *Chen*, 151 FERC ¶ 61,179; *City Power*, 152 FERC ¶ 61,012.

two of Respondents' largest and most successful OCL Strategy trading paths—SouthImp-Exp and NCMPAImp-Exp—are identical to those we considered in *City Power* and there is overlap in Respondents' and City Power's trade dates at those locations.

103. In *Chen* and *City Power* we found:

the UTC products' history and purpose demonstrate that engaging in . . . UTC trades with the MLSA payments as the sole or primary price signal is improper. Speculative UTC trades placed to arbitrage price spreads will have as their sole or primary price signal the price risk of the underlying UTC spread and will be placed with the purpose of profiting based on the direction of the spread.²⁴⁶

104. As discussed below, we conclude Respondents engaged in their OCL Strategy trading with the MLSA payments as the sole or primary price signal and we, for the third time, reiterate: this behavior is fraudulent.

(a) The OCL Strategy

105. We find Respondents' OCL Strategy to be part of a concerted scheme to obtain MLSA payments by placing large volumes of UTC trades—using paid transmission in order to qualify for MLSA and thereby voluntarily incurring greater transaction costs—on nodes that Respondents analyzed, selected, and targeted for having zero, near-zero, or “low-risk” spreads.²⁴⁷ Specifically, in the development, implementation, and furtherance of their scheme, Respondents: (i) studied how MLSA payments were awarded in order to efficiently garner large sums in MLSA payments;²⁴⁸ (ii) reviewed UTC nodes in search

²⁴⁶ *Chen*, 151 FERC ¶ 61,179 at P 80 (with respect to round-trip trades); *City Power*, 152 FERC ¶ 61,012 at P 103 (with respect to round-trip trades), *see also City Power*, 152 FERC ¶ 61,012 at P 139 (with respect to SouthImp-Exp trades), P 158 (with respect to NCMPAImp-Exp trades).

²⁴⁷ When we refer to the “spread,” we mean the spread which is calculated as follows: (Sink Node RT LMP – Source Node RT LMP) – (Sink Node DA LMP – Source Node DA LMP). We conclude that this spread determines whether or not the UTC trade will make or lose money, independent of any costs or expenses incurred as a result of the trade and thus is the appropriate reference point for our analysis here. To the extent that we refer in this order to the spread between the day-ahead to day-ahead price or the real-time to real-time price, we will affirmatively state that.

²⁴⁸ *See infra* PP 108-109.

of zero, near-zero, or “low-risk” spread paths in an attempt to remove as much price risk as they could from the underlying UTC trade;²⁴⁹ and (iii) set up internal trade systems to select, segregate, and track their OCL Strategy trading.²⁵⁰ We conclude these actions demonstrate that the OCL Strategy was a well-planned undertaking and that Respondents’ sole or primary purpose in developing the OCL Strategy and placing the OCL trades was to profit from the collection of MLSA payments rather than to benefit from the arbitrage of the price spreads. We also conclude that Respondents’ pursuit of this scheme resulted in fraud within jurisdictional markets.

106. We find that Respondents devised the OCL Strategy in 2010 after the *PJM Report of Refund* was issued.²⁵¹ As described in that report, among the market participants receiving MLSA payments was Energy Endeavors, Coaltrain’s predecessor company, which received approximately \$6 million.²⁵² That Respondents were well aware of and impressed by the size of the MLSA payments distributed by PJM is demonstrated by the June 1, 2010 instant message Mr. Peter Jones sent to his former Conectiv Energy colleague and then City Power principal, Stephen Tsingas, congratulating Mr. Tsingas on the nearly \$16 million in MLSA payments City Power had received.²⁵³

107. Until that time, Respondents had engaged in Spread Trades. The testimony makes clear the difference between the Spread and OCL Strategies: the Spread Strategy focused on constraint-based or congestion-based trading²⁵⁴ whereas the OCL Strategy had “no

²⁴⁹ See *infra* PP 110-111, 125-126.

²⁵⁰ See *infra* P 111.

²⁵¹ See *infra* PP 130, 158, 183; Jones Test. Vol. II Ex. 22 (PJM, Report of Refund, filed on June 1, 2010, in Docket No. E14-08-007).

²⁵² P. Jones Test. Vol. II Ex. 22 at Attachment A, Part 1.

²⁵³ *Id.* Ex. 23 (COALTRAIN00775) (“yo bubba, you around?? ok, well I just added up the company refunds for the line losses - looks like you guys got about 16M - wow!! good for you!!! I’m really happy for you and will surely take you up on the offer for dinner when I’m in your area! later.”); P. Jones Test. Vol. II Tr. 108:25-109:14; P. Jones Test. Vol. I 170:12-19.

²⁵⁴ See, e.g., Wells Test. Tr. 32:18-24, 34:3-17, 49:18-50:13; Miller Test. Tr. 22:15-18. When Mr. Wells refers in his testimony to “low-risk” trades, we find that he refers to OCL Trades. See, e.g., Wells Test. Tr. 154:23-24 (“Q: What were “OCL plays”? A: “I believe that’s the low-risk strategies”); 99:22-24 (“In this case ‘OCL’ refers to low-risk strategy runs that we used to do . . .”).

concern . . . at all” with constraints or congestion.²⁵⁵ Said differently, the Spread Strategy focused on the profitability of the price spread of the UTC whereas the OCL Strategy focused on MLSA and sought a “low-risk” UTC spread as a result. Indeed, we find the OCL Strategy sought to minimize exposure to the price spread²⁵⁶ so as not to detract from the size of the MLSA payment.²⁵⁷ On the other hand, Respondents’ testimony reflects their affirmative understanding that UTC trades—or, Spread Trades—were trades whose profit depended on the arbitrage of the day-ahead and real-time price spreads.²⁵⁸ Further proof of the difference between the Spread and OCL Strategies is seen in the magnitude, pattern, and performance of trading for each respective strategy.²⁵⁹ The difference between the Spread and OCL Strategies, as recognized by Respondents in testimony and highlighted in the trade data, supports our conclusion that the OCL Strategy had as its sole or primary price signal the MLSA payments and that those trades were thus improper and fraudulent.

108. We conclude from the evidence that after the release of PJM’s *Report of Refund*, Respondents took a pointed interest in MLSA and began to develop their OCL Strategy. For example, Coaltrain’s Chief Financial Officer reviewed PJM’s website and

²⁵⁵ Wells Test. Tr. 50:20-22; *see also id.* 49:18-50:19.

²⁵⁶ *See* Coaltrain and PJM Data. Respondents’ assertion that by OE Staff’s calculation Coaltrain turned a profit on the UTC price spreads on 13 of 40 paths before accounting for MLSA is misleading. Answer of Coaltrain and Individual Respondents at 26 (citing Staff Report at 34). Respondents rely on the total number of times the price spread on a path was positive. They do not account for the cost of placing those trades, which was needlessly increased due to Respondents’ voluntary use of paid transmission in order to access MLSA. The total number of paths on which the spread experienced a profit net of transaction costs is only two. *See* Coaltrain and PJM Data.

²⁵⁷ Mr. Wells also testified that Respondents’ OCL Trades were not identified using a constraint-based analysis but by using a database filter that identified trades based on a small price spread, lack of risk, and those trades which consistently paid more than the cost of the trade. Wells Test. Tr. 167:23-168:16.

²⁵⁸ P. Jones Test. Vol I Tr. 33:8-13, 67:12-13; Sheehan Test. Vol. I Tr. 51:23-24; Miller Test. Tr. 22:15-18; R. Jones Test. Tr. 20:1-2; Wells Test. Tr. 32:18-24.

²⁵⁹ *See supra* PP 37-47 (comparing Spread and OCL Strategies; *see infra* PP 130-134, 158-162, 183-187 (discussing pattern of SouthImp-Exp, NCMPIImp-Exp, and Other OCL Trades).

downloaded data related to the MLSA.²⁶⁰ Mr. Hughes created and analyzed charts and graphs for Respondents using PJM data demonstrating, among other things, that in May 2010 Coaltrain would have earned more money in MLSA payments if it had increased its transaction costs to be eligible for MLSA.²⁶¹ We find that the column headings of “Losses Missed” and “Trans[mission] Saved” in a spreadsheet created by Mr. Hughes, along with the analysis,²⁶² demonstrates Respondents’ interest in pursuing MLSA and their desire to implement the scheme to garner MLSA payments.

109. We find that Respondents continued to study, review, and analyze the PJM market and MLSA payments and to revise and improve their internal systems in furtherance of their scheme. The Spector 360 data includes examples of these various studies, reviews, analyses, revisions and improvements.²⁶³ For example, Mr. Hughes developed software applications for Respondents in which he used terminology showing that the context of the programming endeavors was to focus on garnering MLSA payments.²⁶⁴ On June 15, 2010, Mr. Hughes wrote that he was working to “create [an] application to find deals for loss credits.”²⁶⁵

110. Mr. Hughes also developed a software program called “Lost and Found” that verified UTC paths and permitted traders to sort the paths according to criteria that

²⁶⁰ Charette Spector 360 Screenshots (June 3, 2010 ca. 10:40 a.m.).

²⁶¹ Hughes Test. Exs. CT-9, CT-10 (Mr. Hughes’ graphs and tables showing loss credit data from May 2010); *see also* COALTRAIN007202 (Mr. Hughes receiving “New loss credit table” with PJM data on loss credits).

²⁶² Hughes Test. Ex. CT-10. Mr. Hughes’ analysis is conducted from the perspective of determining Net Profits Lost: Transmission Saved – Losses Missed = Net Profits Lost. The resulting figure is “[\$(343,323.61).” *Id.* The manner in which the calculation was made (subtracting “losses missed” by not purchasing transmission from the cost of transmission “saved” by not purchasing transmission) makes clear the point of the analysis was to determine how much MLSA money had been left on the table by not buying transmission.

²⁶³ *See generally* Spector 360 Data.

²⁶⁴ COALTRAIN012638, rows 1216, 1227, 1229 (using the terms “LossStrategy,” “LossFilter,” LossSorter,” and “LossTester).

²⁶⁵ *Id.* at row 1951.

demonstrated potential MLSA eligibility.²⁶⁶ Mr. Hughes used this application on June 17, 2010, to identify, as directed, UTC paths that had little price risk, including the SouthImp-Exp path.²⁶⁷ This Lost and Found program permitted Mr. Hughes to review not only the average day-ahead and real-time values across the analyzed time span, but also average spreads, average charges, and graphs of the constraint risks and sparklines.²⁶⁸

111. Moreover, Mr. Hughes integrated Respondents' OCL Strategy into their internal systems by "[a]dd[ing] PJM Loss Credits to Node Analyzer."²⁶⁹ The Node Analyzer tool permitted Coaltrain's traders to "select nodes and analyze either the individual nodes or the difference between the nodes over historical basis."²⁷⁰ In other words, the Node Analyzer permitted the analysis of UTC spreads and on July 15, 2010 PJM loss credits were added to that tool. Additional enhancements related to the OCL Strategy were made to Respondents' internal systems. For example, screenshots demonstrate that Respondents labeled their trading strategies as "OCL" or "Spread" in Coaltrain's internal systems which permitted them to track the performance of the two different UTC trading strategies.²⁷¹ By way of additional example, the daily Profit and Loss application permitted Respondents to keep track of their OCL payments and their profits net of all

²⁶⁶ Hughes Test. Ex. CT-16; Hughes Test. Tr. 95:23-97:11. We reject Respondents' contention that the software did not permit sorting for MLSA eligibility. Answer of Sheehan, Miller, and Hughes at 9. The software, which later became known as "Daily Strategy," identified whether or not the transactions were imports or exports, which implicates potential MLSA eligibility with the addition of paid transmission. *Id.*; Hughes Test. Exs. CT-124, CT-125.

²⁶⁷ Hughes Test. Ex. CT-46; Hughes Test. Tr. 123:13-124:6.

²⁶⁸ *See, e.g.*, Hughes Test. Ex. CT-46.

²⁶⁹ Hughes Test. Ex. CT-31; Hughes Test. Tr. 107:6-108:3.

²⁷⁰ Hughes Test. Tr. 72:4-7.

²⁷¹ *See, e.g.*, Miller Test Ex. CTJM-92; *see also* R. Jones Test. Ex. CT-RJ-95.

charges.²⁷² We conclude these actions and enhancements were made in furtherance of Respondents' scheme to defraud the PJM market.²⁷³

112. Around this time, Respondents communicated with each other concerning loss trading or researched PJM and other data related to developing a strategy to capture MLSA payments.²⁷⁴ On the morning of June 10, 2010, Messrs. Sheehan ("shawnconnectiv") and Miller ("Carlog33") had an IM conversation in which they discussed OCL Trades in a manner which demonstrates that Respondents' scheme to manipulate the PJM market with the OCL Strategy was devised by this date:

²⁷² See, e.g., R. Jones Test. Ex. CT-RJ 128. The evidence demonstrates that Respondents used the software tools created by Mr. Hughes in furtherance of the scheme. For example, Messrs. Miller and Robert Jones used screens that sorted OCL Strategy and Spread Strategy transactions and Mr. Robert Jones made use of screens that tracked OCL profits. See, e.g., Miller Test. Ex. CTJM-92 (Aug. 22, 2010, screenshot of application that identifies trades as "Spread" or "OCL" Trades); R. Jones Test. Ex. CT-RJ 95 (June 29, 2010, screenshot of application designating SouthImp-Exp OCL Trades as "OCL."); R. Jones Test. Ex. CT-RJ 128 (On July 2, 2010, Mr. Robert Jones highlighted total daily MLSA payments in Coaltrain's P&L application). And, Respondents planned for additional IT improvements to ease their ability to submit OCL Trades: around July 21, 2010, Mr. Hughes created a ticket that would permit the development of a tool for traders to "auto-submit" PJM OASIS trades "for ocl." COALTRAIN012641, row 1255. While that tool was ultimately not created, we find this demonstrates Respondents' desire to improve their scheme with continued internal systems enhancements. See, e.g., Answer of Sheehan, Miller, and Hughes at 10.

²⁷³ COALTRAIN012638, row 1951; COALTRAIN012639, row 27.

²⁷⁴ See, e.g., P. Jones Test. Vol. II Ex. 12 (June 5, 2010, 10:12:33-10:13:12 a.m. internal IM communication between Messrs. Peter Jones and Sheehan discussing UTC trade. Mr. Sheehan notes a trade that is "1.14 and we get losses which have been 1-1.15 lately means it's a free trade."); Miller Test. Exs. CJTM-18 (June 8, 2010 3:32:45 p.m. screenshot of Mr. Miller's Google search results for "OCL"), CTJM-12 (June 7, 2010 1:34:38 p.m. screenshot of Mr. Miller's search for the term "OCL" on PJM's website); Sheehan Test. Ex. CTS-5 (June 8, 2010 screenshot of Mr. Miller's Google search for "overcollected losses."); Miller Test. Ex. CTJM-32 (June 9, 2010 screenshot of the LossFinder spreadsheet demonstrates review of various UTC trading paths and the standard deviation day-ahead and real-time for each of those paths).

Carlog33> what price would we expect to make money on for OCLs
Carlog33> pete suggested same prices
shawncnectiv>well the risk is that you if you don't get done you have just paid .67 for trans[mission] for nothing
Carlog33> thats true
Carlog33> but if you pay too much then you may be higher than the OCL number
shawncnectiv> i agree with that ... each trade for ocl will be unique... if its same sorce [sic] sink in and out then its purely the ocl value... but if its just a strict import then it has to be evaluated on its merits as well...just my opinion
Carlog33> thats a good point
shawncnectiv> i woudl [sic] think if we like certain constraints then we should try and see if we can layer on the ocl strategy as well
[...]
Carlog33> but isn't the OCL strategy out the window as soon as you pay more than the OCL number...it is strictly an upto at that point
Carlog33> especially since you buy the OASIS²⁷⁵

113. We conclude that the IM conversation between Messrs. Sheehan and Miller demonstrates that: (i) Respondents had devised, created, and adopted their OCL Strategy by June 10, 2010; (ii) the OCL Strategy was separate and distinct from their Spread Strategy and Respondents understood this;²⁷⁶ and (iii) the OCL Strategy targeted MLSA payments.²⁷⁷ We conclude further that the scheme to manipulate the PJM market with

²⁷⁵ Miller Spector 360 Chat IM (June 10, 2010 9:34 a.m.) (emphasis added). *See also* Miller Spector 360 Chat IM (June 10, 2010 8:48 a.m.) (conversation between Messrs. Peter Jones and Miller in which Jones advises that “average peak losses have been around a bit above 1.50 (depending upon month) and I would expect June losses to be up a bit given higher loads”); Miller Spector 360 Chat IM (June 10, 2010 9:04 a.m.) (conversation between Messrs. Sheehan and Miller in which Sheehan asks about a trade and Miller responds, “I thought that was only for OCL which is higher on peak and for a certain price”).

²⁷⁶ Not only do both Mr. Sheehan and Mr. Miller use the term OCL Strategy, but each distinguishes the OCL Strategy from the Spread Strategy in this conversation.

²⁷⁷ For example, Mr. Sheehan opines that each OCL Trade will be unique, explaining that if an OCL Trade’s source and sink are identical—as they were in the case of the SouthImp-Exp OCL Trades as we find below—then the trade should be evaluated purely from the perspective of the anticipated MLSA payment. Miller Spector 360 Chat

(continued...)

the OCL Strategy was implemented with the first OCL Trade on market day June 15, 2010 and that the OCL Strategy began to earn unjust profits on market day June 16, 2010.²⁷⁸

114. The evidence demonstrates that in the first several days of OCL Strategy trading, Respondents experimented with and refined the paths they selected.²⁷⁹ The evidence further demonstrates that after discovering the SouthImp-Exp and NCMPAImp-Exp paths, Respondents focused their OCL trading activity on these paths—sometimes to the exclusion of any other path—and we conclude that Respondents continued trading in this manner until the IMM raised concerns with their trading on these paths.²⁸⁰ Thereafter, Respondents began again to focus on trading Other OCL Trade paths. We conclude that this evidence demonstrates that Respondents were engaged in their scheme and were assessing the performance of their OCL Trades to further the success of that scheme.

115. As we address in greater detail below with respect to each of the three categories of OCL Trades, we find that the OCL Strategy was fraudulent, inconsistent with non-

IM (June 10, 2010 9:34 a.m.). Mr. Sheehan also distinguishes an OCL Trade from a “strict import” trade, which he states has to be evaluated on its “merits.” *Id.* We conclude those “merits” are the potential for an arbitrage of the price spread which was part of their Spread Strategy. *Id.* Similarly, Mr. Miller recognizes that when a trader pays as much for a trade as the MLSA payment, the only opportunity for gain is the price spread. He understands that this is consistent with their “up-to” or Spread Strategy stating “it is strictly an upto at that point.” *Id.*

²⁷⁸ COALTRAIN011540.

²⁷⁹ For example, for trade day June 15, 2010, Respondents placed trades only on the single path of CPLEImp-DukExp, which with paid transmission qualified for MLSA but resulted in an average spread of negative \$0.70 per MWh and a net loss of almost \$4,100 after accounting for transaction costs and MLSA. Respondents abandoned that path after trying it again on trade day June 18, 2010 (experiencing a loss net of transaction costs and MLSA of approximately \$3,100) and on trade day July 8, 2010 (experiencing a small gain net of MLSA of approximately \$1,900). *See* Coaltrain and PJM Data.

²⁸⁰ *See* Coaltrain and PJM Data; COALTRAIN011541 (voice recording) at 6:27-6:57 (Aug. 6, 2010) (call between IMM and Mr. Peter Jones in which Mr. Peter Jones acknowledges that the SouthImp-Exp OCL Trades without price deltas are inappropriate); COALTRAIN000319 (Coaltrain notes regarding a July 30, 2010 call with the IMM in which IMM raised concerns with Coaltrain’s trading on NCMPAImp-Exp).

manipulative trading patterns, uneconomic, inconsistent with the fundamentals of supply and demand, contrary to the PJM UTC market design purpose, and deceptive.

(b) **SouthImp-Exp OCL Trades**

116. We conclude from the communications, testimony, data, and other evidence in this proceeding that Respondents' trading on the SouthImp-Exp path was part of their OCL Strategy to defraud the PJM market. In support of that conclusion, we find that: (i) there was a zero-spread on the SouthImp-Exp path across each of the 458 hours on the 34 days Respondents traded it during the Manipulation Period;²⁸¹ (ii) Respondents understood from the history of the path that there would be a zero-spread and verified this by monitoring the spread's performance;²⁸² (iii) Respondents voluntarily increased their losses on the SouthImp-Exp OCL Trades by purchasing transmission in order to qualify for MLSA, knowing that paid transmission was not required to place the trades;²⁸³ (iv) Respondents continued to place large volumes of the SouthImp-Exp OCL Trades despite the demonstrated continuity of the zero-spread, thereby further increasing their net spread losses;²⁸⁴ and (v) Respondents engaged in this behavior to further their goal of eliminating or minimizing spread changes to profit solely or primarily from MLSA payments and did not engage in this behavior to pursue arbitrage profits from the spread.²⁸⁵ Moreover, we conclude that Respondents' scheme diverted MLSA payments from other market participants.²⁸⁶

117. We agree with OE Staff's characterization of the SouthImp-Exp OCL Trades as the "most successful" OCL Trades Respondents engaged in. Respondents traded this

²⁸¹ See Coaltrain and PJM Data.

²⁸² See *infra* PP 119, 123-127.

²⁸³ See *infra* PP 128, 131.

²⁸⁴ See *infra* P 132.

²⁸⁵ See, e.g., Coaltrain and PJM Data; Hughes Test. Exs. CT-46 (June 17, 2010 2:31 p.m.), CT-47 (June 17, 2010 2:31 p.m.); CT-55 (June 17, 2010) (Internal communication between Messrs. Hughes and Sheehan, in which Mr. Sheehan recognizes that the spread on SouthImp-Exp was "da da perfectly 0"); R. Jones Test. Ex. CT-RJ 111 (June 30, 2010 3:36 p.m.); Wells Test. Ex. 51 (June 30, 2010 7:51 a.m.). See also *City Power*, 152 FERC ¶ 61,012 at P 127.

²⁸⁶ See *infra* PP 303-305.

path twice as long as the next most active path and, due solely to the MLSA payments, earned the most on this path of any OCL Strategy path traded during the Manipulation Period.²⁸⁷ The success of the SouthImp-Exp OCL Trades was due not only to the zero-spread trades placed on these mathematically equivalent nodes, but also to the repetitive, high volume of Respondents' trades on this path for an extended period of time.²⁸⁸

118. We addressed the mechanics and spread history of the SouthImp-Exp nodes in *City Power*.²⁸⁹ As we explained in *City Power* and as is confirmed by the Record in this matter, the SouthImp-Exp nodes were defined by PJM as mathematically equivalent beginning on April 2, 2007 in the real-time market and April 3, 2007 in the day-ahead market.²⁹⁰ As we also explained in *City Power* and as PJM explained in Record evidence contained in this matter, there were occasions of price divergence on this path due to the

²⁸⁷ Respondents bid in 458 hours across this 34-day period. See Coaltrain and PJM Data.

²⁸⁸ Respondents began their trading of the SouthImp-Exp path on trade date June 19, 2010, with 12,000 MWh. The next day, Mr. Peter Jones informed Mr. Robert Jones “it may be worth trying to put another 1000 on the southimp exp play. [W]e didn’t move prices at all with what we put out for today.” R. Jones Test. Ex. CT-RJ 36. Mr. Robert Jones responded “[W]ill do.” *Id.* Respondents next traded this path on June 22, 2010 and their bids increased to 56,000 MWh. See Coaltrain and PJM Data. In fact, after June 19, 2010, Respondents never traded the SouthImp-Exp path at as low a volume again. Specifically, after June 19 when Respondents traded 12,000 MWs, Respondents’ trading was between 50,000 – 59,999 MWs on 3 days, between 60,000 – 69,999 MWs on 6 days, between 70,000 – 79,999 MWs on 10 days, between 80,000 – 89,999 on 3 days, between 90,000 – 99,999 MWs on 2 days, and in excess of 100,000 MWs on 9 days. COALTRAIN003512-3519.

²⁸⁹ *City Power*, 152 FERC ¶ 61,012 at PP 127-141. Indeed, Respondents’ SouthImp-Exp OCL Trades were placed for some of the same trade days as those placed by the respondents in *City Power*, albeit Respondents placed SouthImp-Exp OCL Trades for a longer duration: here, Respondents placed trades for 34 days between June 19 and July 27, 2010, while in *City Power* the trades were placed for a period of 8 days between July 5 and July 14, 2010. See Coaltrain and PJM Data; *City Power*, 152 FERC ¶ 61,012 at P 127.

²⁹⁰ Record at Response_to_FERC_Fourth_Data_Request_to_PJM_Docket_No_IN10-5-000_Redacted.pdf; see also *City Power*, 152 FERC ¶ 61,012 at P 127.

impact of a de-energized bus.²⁹¹ We performed a historical review of the spread data between SouthImp-Exp here, as we did in *City Power*. To that end, we find that after 2007, there was zero-spread per MWh divergence in June 2008 on average and an approximately negative \$0.01 per MWh spread divergence on average across June 2009 and June 2010.²⁹² An analysis including June to August 2008, June to August 2009, and June 2010²⁹³ results in a zero-spread on average between SouthImp-Exp.²⁹⁴ Thus, our historical analysis of information available to Respondents before they placed their first trade demonstrates that the SouthImp-Exp path had an average zero-spread.

119. We reject Respondents' argument that price divergence on SouthImp-Exp caused them to trade this path.²⁹⁵ This is contrary not only to the data discussed above but to other evidence, including: Mr. Sheehan's observation of the "perfectly 0" performance of the path before a single trade was placed;²⁹⁶ Mr. Hughes' analyses highlighting the

²⁹¹ Record at Response_to_FERC_Fourth_Data_Request_to_PJM_Docket No_IN10-5-000_Redacted.pdf; *City Power*, 152 FERC ¶ 61,012 at P 127.

²⁹² The day-ahead and real-time LMPs were sourced from PJM's public Data Miner tool with Locational Marginal Pricing data, available at <https://dataminer.pjm.com/dataminerui/pages/public/lmp.jsf> (last visited May 12, 2016). We will refer to data from this publicly available cite as "PJM Data Miner LMP Data." As noted, even the small divergence seen in June 2009 and June 2010 produced an average negative actual spread and which therefore resulted in negative profits.

²⁹³ We considered June 2010 because some of the trade results would have been available to Respondents before they began trading on this path.

²⁹⁴ See PJM Data Miner LMP Data. The Commission looked at data for the months of June through August because these months represented a timeframe similar to the June to July, 2010 trade dates at issue here. We even expanded our analysis to include May to provide an additional data point even though we do not consider May to be a similar month. Nonetheless, an analysis including May through August 2008, May through August 2009 and May through June 2010 results in a zero-spread on average between SouthImp-Exp.

²⁹⁵ See Answer of Coaltrain and Individual Respondents at 13-14 ("Coaltrain only executed trades when it anticipated the possibility of a positive DA-RT price spread between source and sink.").

²⁹⁶ Hughes Test. Ex. CT-55 (June 17, 2010, IM Between Messrs. Hughes and Sheehan).

path with its zero-spread;²⁹⁷ and Respondents' decision to continue to trade this path knowing its day-to-day performance earned nothing from the spread.²⁹⁸ Nothing obligated Respondents to continue trading this path after observing its uneconomic performance day-after-day; they could have ceased trading at any time. Yet, Respondents continued to trade this path for 458 hours with no single hour experiencing any profits from the underlying spread.²⁹⁹

120. What we stated in *City Power* concerning the zero-spread SouthImp-Exp trading is equally true here:

there was no substantive price risk and no arbitrage benefit to the market from these zero-spread SouthImp-Exp trades. The underlying SouthImp-Exp trades were by design unprofitable and this lack of profit was exacerbated by the transaction costs associated with the trades.³⁰⁰

121. We conclude that Respondents selected, implemented, and continued to trade the SouthImp-Exp OCL Trades because the price spread on that path was zero, eliminating an important economic risk. We also conclude that Respondents' SouthImp-Exp OCL Trades were: (i) lacking arbitrage or convergence purposes; (ii) uneconomic; (iii) placed without regard to market fundamentals of supply and demand; (iv) placed solely or primarily with the intent to garner MLSA payments; (v) without substantive risk; and (vi) deceptive. We also find that Respondents traded large volumes of these zero-spread trades to target large MLSA payments. We conclude, therefore, that the SouthImp-Exp

²⁹⁷ See *id.* Ex. CT-47 (June 17, 2010 2:31 PM) (screenshot of Mr. Hughes' review of Node Analyzer with SouthImp-Exp selected and showing a consistent day-ahead spread of zero and consistently zero hourly spreads on all days except one day); Hughes Test. Tr. 121:7-122:19.

²⁹⁸ See Coaltrain and PJM Data. Thus, even if, *arguendo*, Respondents entered into these trades because they observed a historic price divergence occurring in months unlike the months of June and July in which they traded, they monitored the performance of their trades, knew that the spread was zero and nonetheless continued to trade large volumes across 34 days. See Hughes Test. Ex. CT-50. Even under this scenario, Respondents knew of the zero-spreads and continued to trade on SouthImp-Exp.

²⁹⁹ See Coaltrain and PJM Data.

³⁰⁰ *City Power*, 152 FERC ¶ 61,012 at P 128.

OCL Trades are fraudulent and violate section 222 of the FPA and the Anti-Manipulation Rule.³⁰¹

(1) **Communications, testimony, and other evidence demonstrate the existence of a scheme to defraud**

122. That Respondents devised, implemented, and engaged in their scheme to defraud the PJM market is evidenced by the Record in this matter, including: (i) trade data; (ii) Respondents' activities recorded by Spector 360 software as they were undertaken; (iii) testimony; and (iv) communications.

123. As discussed above, the evidence demonstrates the scheme was well-planned and carefully implemented.³⁰² Respondents' efforts to plan and implement the scheme led them to identify the SouthImp-Exp path. On June 17, 2010, two days after Respondents began their OCL Strategy, a Spector 360 screenshot demonstrates that Mr. Hughes conducted an analysis he was directed to do, using criteria he was given.³⁰³ Specifically, he used the "Lost and Found" software program he developed to identify UTC paths with little price risk.³⁰⁴ Using the "Lost and Found" program, Mr. Hughes considered the average day-ahead and real-time values across various nodes from June 11 to June 17, 2010 and could see the average spreads, average charges, constraint risks, and sparkline graphs for those paths.³⁰⁵ Of the 30 paths visible on the spreadsheet, however, Mr. Hughes highlighted only SouthImp-Exp—the only path in the analysis that possessed an average day-ahead and real-time spread of zero and an overall spread of zero.³⁰⁶

³⁰¹ See *City Power*, 152 FERC ¶ 61,012 at P 129.

³⁰² See *supra* PP 108-113 (discussing the software and internal systems upgrades and various analyses and conversations between the individual Respondents).

³⁰³ Hughes Test. Tr. 124:2-6.

³⁰⁴ *Id.* Ex. CT-46 (June 17, 2010 2:31:15 p.m.).

³⁰⁵ *Id.*

³⁰⁶ *Id.* Tr. 119:13-21, 120-18-23.

124. The screenshots also demonstrate that Mr. Hughes examined the SouthImp-Exp path on the Node Analyzer at the very same time.³⁰⁷ The Node Analyzer program provided information about the SouthImp-Exp path similar to what Mr. Hughes saw in the “Lost and Found” program: the day-ahead spreads were zero for all 6 days on the screen and the spreads by hour for each of the 10 days on the screen were overwhelmingly zero.³⁰⁸

125. That identifying the zero-spread path was an important moment in Respondents’ pursuit of the OCL Strategy is demonstrated by the fact that Mr. Hughes communicated his discovery to Mr. Sheehan and, less than 2 minutes later, Mr. Sheehan responded: “da da perfectly 0.”³⁰⁹ We are also persuaded in this instance by what Messrs. Hughes and Sheehan do not say to each other in this communication. Specifically, neither mentions that historical information demonstrates the SouthImp-Exp path would result in an uneconomic UTC trade from a price spread arbitrage perspective. In fact, rather than warn against or simply not inform Mr. Sheehan of this uneconomic UTC trade, Mr. Hughes draws the path to Mr. Sheehan’s attention³¹⁰ stating only: “SOUTHIMP-EXP.”³¹¹ And Mr. Sheehan focuses only on the zero day-ahead spread in his response.³¹² We conclude that no explanation was provided by Mr. Hughes and no questions were

³⁰⁷ *Id.* Ex. CT-47 (June 17, 2010 2:31:15 p.m.). Mr. Hughes uses multiple monitors while at work. *Id.* Tr. 121:13-14. As OE Staff explained, the Spector 360 software takes account of what is on each monitor in a single snapshot. *Id.* Tr. 121:10-21. Hughes Test. Exs. 46 and 47 are enlarged portions of the same screenshot.

³⁰⁸ The sole exception was one day when the path had a spread which was negative overall for the day—meaning that the overall spread would have been unprofitable on that day and that losses would have been exacerbated by total transaction costs (including the cost of paid transmission). *Id.* Ex. CT-47 (June 17, 2010 2:31:15 p.m.). In fact, Mr. Hughes described the average spread over this timeframe in testimony as having “[s]lightly negative value that is rounded to zero.” *Id.* Tr. 122:5-6.

³⁰⁹ *Id.* Ex. CT-48 (Mr. Hughes mentioning SouthImp-Exp at 2:31:34 p.m. and Mr. Sheehan responding “da da perfectly 0” at 2:33:15 p.m.).

³¹⁰ Mr. Hughes explicitly admits that this conversation involved UTC trades. *Id.* Tr. 253:6-8.

³¹¹ *Id.* Ex. CT-48.

³¹² Mr. Hughes testified that the day-ahead spread represents “the day-ahead cost to place the transaction is zero.” *Id.* Tr. 123:21-23. *See also id.* Tr. 123:24-124:1.

asked by Mr. Sheehan in this communication because they understood Mr. Hughes was tasked with locating zero or near-zero spread trades in furtherance of Respondents' OCL Strategy and that Mr. Hughes had successfully located exactly that in the SouthImp-Exp path.

126. Mr. Hughes testified that he made Mr. Sheehan aware of the trade because he “was probably directed to do analysis, and that was one of the transactions that met criteria that was given to me.”³¹³ On the very next day after discovering the path—June 18, 2010 for trade date June 19, 2010—Respondents placed the first of 34 days of SouthImp-Exp OCL Trades, increasing the volume of those trades during that timeframe thereby increasing their MLSA-driven profits. This evidence further supports our findings that Respondents sought zero or near-zero spread paths and they placed the SouthImp-Exp OCL Trades expecting that the trades would yield a zero-spread.³¹⁴ We also find that Respondents understood from the zero-spread history that the SouthImp-Exp path would provide Respondents with access to MLSA payments without the risk of offset to those payments by a loss from the UTC spread itself and that they knew this before they placed their first trade on the path. We also conclude this further substantiates our finding that the sole or primary purpose of these trades was to garner MLSA payments.

127. The fact that Respondents' underlying UTC trades on SouthImp-Exp never experienced anything but a zero-spread in any of the 34 days of trading³¹⁵ and that Respondents affirmatively understood this performance record during the course of that trading further demonstrates that the trades had as their sole or primary price signal MLSA payments. The Record demonstrates that Respondents monitored spread performance and MLSA payments for the SouthImp-Exp OCL Trades.³¹⁶ Yet the Record

³¹³ *Id.* Tr. 124:2-6.

³¹⁴ We reject the suggestion that Mr. Hughes' analyses demonstrate that Respondents anticipated divergence on the SouthImp-Exp path. Hughes Test. Ex. CT-50. Given transaction costs of \$0.89 per MWh, the results in this analysis would have been profitable in only 10 hours without MLSA. *See* 2011 01 06 MMU_MLSA_Referral 01 06 2011_Redacted.pdf at n.6; 3d_DR_Trade_Data_COALTR. Moreover, none of these hours was in months similar to Respondents' trading during the Manipulation Period.

³¹⁵ *See* Coaltrain and PJM Data.

³¹⁶ For example, a June 30, 2010 screenshot shows Mr. Wells using the Node Analyzer, which demonstrates that he monitored the day-ahead and overall SouthImp-Exp spreads for select days in June 2010 and demonstrates that those spreads were zero.

(continued...)

demonstrates that Respondents continued to engage in such trades that were consistently uneconomic in and of themselves (but for the MLSA). Moreover, Respondents elected not only to continue to place the trades, but voluntarily to increase the volume of the trades.³¹⁷ By increasing the volume, Respondents also increased the cost of each trade because, as we explain below, with the exception of only two days, they scheduled paid transmission for each MWh in order to be eligible for MLSA.³¹⁸ We conclude the only reason for Respondents to do so was to have the trades qualify for MLSA and thereby garner larger MLSA payments.³¹⁹

128. The fact that Respondents knew they did not need to use paid transmission to place these trades but did so nonetheless is also persuasive evidence that the SouthImp-Exp OCL Trades were placed with the MLSA as their sole or primary price signal. On June 20 and June 21, Respondents scheduled SouthImp-Exp OCL Trades using free transmission, which disqualified those trades from receiving MLSA payments. After those two days, no trade on SouthImp-Exp was placed by Respondents without paid transmission—thereby qualifying the remainder of Respondents’ SouthImp-Exp OCL Trades for MLSA. When Coaltrain later explained why it failed to use paid transmission

See Wells Test. Ex. 51 (June 30, 2010 7:51 a.m.). Also on June 30, 2010, Mr. Robert Jones reviewed the day-ahead spread performance of SouthImp-Exp for Thursdays in June and the Node Analyzer set forth the zero-spread results. R. Jones Test. Ex. CT-RJ 111 (June 20, 2010 3:36 p.m.). The same spreadsheet also provided an analysis of the MLSA loss credits for certain days in June. *Id.* Mr. Robert Jones highlighted the spread results in hours 10-22—the hours in which Respondents most frequently placed SouthImp-Exp OCL Trades in the month of June—and indicated the low and high range of the June 25, 2010 loss credit results for hours 10-22. *Id.*

³¹⁷ *See supra* note 288.

³¹⁸ *See infra* P 131.

³¹⁹ *See* Coaltrain and PJM Data. Specifically, when OASIS transaction costs of \$2,328,268 and EES transaction costs of \$100,953 are taken into account, Respondents lost \$2,429,222 on the SouthImp-Exp OCL Trades during the Manipulation Period. The significant OASIS charge resulted from the approximately 2.78 million MWhs of paid transmission reserved by Respondents: transmission Respondents knew was unnecessary to schedule a UTC trade on SouthImp-Exp, but which they purchased nonetheless in order to access the MLSA. It was only because of the MLSA payments that Respondents experienced a net gain on these trades. Specifically, Respondents earned \$5,077,119 in MLSA, for a net profit of \$2,647,897. *See* Coaltrain and PJM Data.

on June 20 and June 21, it admitted that this was a “mistake” and that Coaltrain intended to pay for transmission.³²⁰

129. Finally, we conclude that Respondents understood and considered these trades to be part and parcel of the OCL Strategy because the Record demonstrates that they accounted for these trades as “OCL” trades in their internal systems³²¹ and because Respondents identified this path as part of their OCL Strategy in response to a Data Request made by OE Staff.³²² For all of these reasons, we conclude Respondents placed these uneconomic SouthImp-Exp OCL Trades in furtherance of their scheme to defraud the PJM market to obtain MLSA payments that otherwise would have been paid to other market participants.

(2) **Pattern**

130. The timing of Respondents’ SouthImp-Exp OCL Trades reflects their fraudulent nature. For several years before they began making OCL Trades, Respondents engaged in successful Spread Trades which appeared to have promoted price convergence consistent with the UTC product’s purpose.³²³ Respondents devised and implemented the OCL Strategy only after having reviewed PJM’s June 1, 2010 *Report of Refund* and becoming aware of the MLSA payments awarded to market participants.³²⁴ This led to the June 17, 2010 discovery of the SouthImp-Exp path and its zero-spread history—

³²⁰ Coaltrain Response to Enforcement’s Fourth Data Request, Question No. 10 (July 3, 2012).

³²¹ See, e.g., R. Jones Test. Ex. CT-RJ 95 (June 29, 2010 7:29 a.m.); Wells Test. Ex. 51 (June 30, 2010 7:51 a.m.).

³²² COALTRAIN011540.

³²³ See *supra* PP 37-40, 107. Respondents did so successfully: Coaltrain (and Energy Endeavors) earned profits on PJM UTC trades of approximately \$12.8 million in 2008, \$880,000 in 2009, and \$18.7 million in 2010. COALTRAIN000001-9.

³²⁴ See *supra* PP 41, 106. For example, we explained it was after PJM released the *Report of Refund* that Respondents began to study, review, and analyze the PJM market and the award of MLSA payments and to revise and improve their internal systems in furtherance of their scheme to defraud the PJM market.

which was shared with Mr. Sheehan—and the placement of the first of Respondents’ SouthImp-Exp OCL Trades on June 18, 2010 for the June 19, 2010 trade day.³²⁵

131. The pattern of the SouthImp-Exp OCL Trades similarly reflects their fraudulent nature: the pattern of Respondents’ Spread Strategy trading is qualitatively and intrinsically different from the pattern of Respondents’ SouthImp-Exp OCL Trades.³²⁶ For example, when Respondents placed their Spread Trades, they used methods to avoid or reduce their transmission costs, including: (1) scheduling UTC exports with an associated OASIS reservation that used MISO as the sink (which used free transmission); (2) scheduling wheel-through UTC transactions with an associated OASIS reservation that used MISO as the sink (thus using free transmission); and (3) by “overscheduling”³²⁷ UTC trades that needed to use paid transmission.³²⁸ This reflects the nature of the Spread Strategy trade: maximizing the profit of the price spread. For SouthImp-Exp OCL Trades, on the other hand, Respondents consistently purchased transmission and when they failed to purchase transmission for two days of their trades, they described that failure as a “mistake.”³²⁹ An analysis of the trade data quantifies this difference: Respondents purchased transmission for only approximately 18 percent of their Spread Trades (by volume), whereas they purchased transmission for approximately 99 percent of their SouthImp-Exp OCL Trades (by volume).³³⁰ This reflects the fraudulent nature of the OCL Trades: by using paid transmission, Respondents increased transaction costs on their SouthImp-Exp OCL Trades that because of their zero-spread would therefore

³²⁵ See *supra* PP 110-111. Respondents had never before traded the SouthImp-Exp path. See Coaltrain and PJM Data.

³²⁶ See *supra* P 37-40, 107.

³²⁷ Overscheduling involved clearing more MWh of UTC trades than had been reserved for in OASIS. See R. Jones Test. Tr. 31:13-32:9.

³²⁸ See Coaltrain and PJM Data.

³²⁹ See *supra* P 128 n.320 (citing Coaltrain Response to Enforcement’s Fourth Data Request, Question No. 10 (July 3, 2012)).

³³⁰ See Coaltrain and PJM Data. The figures for the SouthImp-Exp OCL Trades were calculated over the timeframe Respondents traded that path: June 19-July 27, 2010. The figures for the Spread Trades were calculated for the timeframe Respondents engaged in their OCL Strategy trading overall: June 15-September 2, 2010. These are the timeframes used for all comparisons between the Spread and SouthImp-Exp OCL Trades in this section of this Order.

necessarily experience greater net spread losses, in order to maximize their share of MLSA payments because the OCL Trades were placed with MLSA payments as their sole or primary price signal.

132. Moreover, the volume of Spread Trades was lower than that of the SouthImp-Exp OCL Trades.³³¹ Respondents engaged in approximately 6,600 SouthImp-Exp transactions from June 19 to July 27, 2010, and the cleared volume associated with those transactions was approximately 2.8 million MWh. This results in an average of 424 MWh per transaction. On the other hand, over the longer timeframe of June 15, 2010 through September 2, 2010, while Respondents engaged in approximately 38,262 Spread Strategy transactions—over five times more than the OCL Strategy transactions—the cleared volume was only approximately 2.1 million MWh—about 25 percent less than the SouthImp-Exp OCL Trades. The result is an average of approximately 55 MWh per transaction. Thus, while there were fewer SouthImp-Exp OCL Trades by number, the average volume of each transaction was almost 8 times greater.³³² Again, the different patterns are consistent with the very different purposes of the trades: there was a price spread risk attached to the Spread Trades³³³ which was essentially nullified by the SouthImp-Exp OCL Trades.³³⁴ For example, the arbitrage price spread associated with the Spread Trades from June 15 through September 2, 2010 was \$0.82 per MWh.³³⁵ Thus, Respondents approached the riskier Spread Trades with lower volumes. In contrast, the SouthImp-Exp OCL Trades had a zero-spread and were wholly dependent for their profitability on the MLSA. Respondents increased that profitability by increasing trade and paid transmission volume to increase MLSA payments.

133. The difference in the patterns between the two strategies is also observed in the average profit per MWh without consideration of MLSA payments. The SouthImp-Exp

³³¹ And, the SouthImp-Exp OCL Trades were only one of three categories of the OCL Trades. The overall volume of the OCL Trades was approximately 4.6 million MWh compared to the approximately 2.1 million MWh of Spread Trades. *See* Coaltrain and PJM Data.

³³² *See id.*

³³³ The average spread associated with the Spread Trades from June 15 through September 2, 2010 was \$0.82 per MWh. *See id.*

³³⁴ As we noted above, the spread on these trades was zero in each hour of each day Respondents traded SouthImp-Exp.

³³⁵ *See* Coaltrain and PJM Data.

OCL Trades earned \$0.00 per MWh on the spread (before the deduction of transaction costs) while the Spread Trades earned \$0.82 per MWh on the spread (before the deduction of transaction costs). After the deduction of transaction costs, the SouthImp-Exp OCL Trades lost \$0.86 per MWh across the Manipulation Period while the Spread Trades gained \$0.62 per MWh.³³⁶ Again, this is consistent with the different purpose of each strategy: having as its sole or primary price signal the MLSA, the OCL Strategy was not focused on profit from the underlying spread but instead from MLSA payments, whereas the Spread Strategy sought to profit from the underlying spread and was not focused on MLSA profits.

134. The trading patterns of each strategy demonstrate to us that the Spread Trades were entered to arbitrage price spreads whereas the OCL Strategy involved the use of zero-spread, near-zero spreads or “low-risk” UTC trading to maximize MLSA payments through high volume trading.³³⁷ For these reasons, we conclude that the timing and pattern of the SouthImp-Exp OCL Trades compared to their Spread Trades highlight the fraudulent nature of them.

(3) **The SouthImp-Exp OCL Trades were uneconomic and contrary to the PJM UTC market design purpose**

135. As we held in *City Power*, we find that Respondents’ SouthImp-Exp OCL Trades were routinely uneconomic and contrary to the market design purposes for which PJM offered the UTC product.³³⁸ Specifically, we find that not only were Respondents’ SouthImp-Exp OCL Trades routinely unprofitable when measured from a price arbitrage perspective,³³⁹ but zero-spread trades were the expected result because these trades had no substantive economic risk. As we concluded in *City Power*, we conclude here that

³³⁶ *See id.*

³³⁷ We observed similar patterns in both *City Power* and *Chen* and found those patterns to be evidence of manipulation in those matters. *See City Power*, 152 FERC ¶ 61,012 at PP 97-99, 136, 155-156; *Chen*, 151 FERC ¶ 61,179 at PP 74-75.

³³⁸ *See City Power*, 152 FERC ¶ 61,012 at PP 137-139; *see also Chen*, 151 FERC ¶ 61,179 at PP 76-77; *City Power*, 152 FERC ¶ 61,012 at PP 100-104, 157-159.

³³⁹ The price spread was zero in each hour traded, but the path was affirmatively unprofitable after transaction costs were deducted.

“[t]his lack of profit from economic fundamentals was an anticipated by-product of Respondents’ trading between two points with a zero spread.”³⁴⁰

136. Further, like the traders in *City Power* and as we noted above, even though Respondents were not required under the PJM tariff to schedule paid transmission to place the trades, we conclude they did so in order to make their SouthImp-Exp OCL Trades eligible for MLSA.³⁴¹ Due to the charge for transmission service and the other costs associated with the trades, the profit and loss calculation associated with the zero-spread SouthImp-Exp OCL Trades, absent MLSA payments, necessarily resulted in a net loss to Respondents.³⁴² Taking into account both transmission charges and other costs, Respondents’ SouthImp-Exp OCL Trades lost approximately \$2.4 million.³⁴³ However, with MLSA payments, Respondents’ SouthImp-Exp OCL Trades generated a profit of approximately \$2.65 million.³⁴⁴ We agree with the IMM and PJM referrals that these trades lacked “economic rationale” and that they had “no risk of any settlement in either the Day-ahead or balancing markets.”³⁴⁵

137. Moreover, the evidence demonstrates that Respondents deliberately selected the SouthImp-Exp path because it had a zero-spread historically, knew the path maintained that zero-spread during the time Respondents traded this path, and knew the trades would not be and were not profitable from a price arbitrage perspective.³⁴⁶ Thus, we find that Respondents’ SouthImp-Exp OCL Trades were knowingly uneconomic and only profitable due to their receipt of MLSA payments, which supports the conclusion that a course of business and scheme to defraud existed. As the Commission has twice found, “that the MLSA payments were not, and should not be considered, part of the underlying

³⁴⁰ See *City Power*, 152 FERC ¶ 61,012 at P 137.

³⁴¹ *City Power*, 152 FERC ¶ 61,012 at P 137; see *supra* PP 116, 131.

³⁴² *City Power*, 152 FERC ¶ 61,012 at P 137 (citing *Chen*, 151 FERC ¶ 61,179 at P 76).

³⁴³ Because Respondents voluntarily and unnecessarily used paid transmission—except on the two days they mistakenly did not do so—the SouthImp-Exp OCL Trades were made more unprofitable by Respondents’ own actions.

³⁴⁴ See Coaltrain and PJM Data.

³⁴⁵ IMM Referral at 3, 13; PJM Referral at 2.

³⁴⁶ See *supra* PP 119, 123-127.

UTC trade is clear: UTCs were created as a tool for hedging congestion price risk associated with physical transactions, and later became a way for market participants to profit by arbitraging the price differences between two nodes in the day-ahead and real-time markets.”³⁴⁷

138. The Commission has twice previously found that the UTC product’s history and purpose demonstrate that engaging in UTC trades with the MLSA payments as the sole or primary price signal is improper:

Speculative UTC trades placed to arbitrage price spreads will have as their sole or primary price signal the price risk of the underlying UTC spread and will be placed with the purpose of profiting based on the direction of the spread.³⁴⁸

Given the design of the SouthImp-Exp points and the resulting \$0 spread per MWh, we find that the pursuit of a price risk on this path was not possible. In sum, the SouthImp-Exp OCL Trades were inconsistent with how the UTC product historically traded and unaligned with the arbitrage purposes of those trades. Respondents engaged in the SouthImp-Exp OCL Trades for the sole purpose of collecting MLSA payments and the SouthImp-Exp OCL Trades only became profitable because of the MLSA payments. However, the MLSA payments were not, and should not be considered, part of the underlying UTC trade. Engaging in UTC trades where the MLSA payments are the sole or primary price signal, as Respondents did here, is improper. For each of these reasons, Respondents’ SouthImp-Exp OCL Trades were fraudulent.³⁴⁹

139. The Commission has also previously noted that while “profitability is not determinative on the question of manipulation and does not inoculate trading from any potential manipulation claim, it is an indicium to be considered among the overall facts that the Commission examines when considering a potential violation of its Anti-Manipulation Rule, but standing alone it is neither necessary nor dispositive.”³⁵⁰ Here,

³⁴⁷ *Chen*, 151 FERC ¶ 61,179 at P 78; *City Power*, 152 FERC ¶ 61,012 at P 102 (citations omitted).

³⁴⁸ *Chen*, 151 FERC ¶ 61,179 at P 80; *City Power*, 152 FERC ¶ 61,012 at PP 103, 139.

³⁴⁹ *City Power*, 152 FERC ¶ 61,012 at P 139.

³⁵⁰ *Chen*, 151 FERC ¶ 61,179 at P 77 (citations and internal quotations omitted). See also *City Power*, 152 FERC ¶ 61,012 at P 101.

we find Respondents' underlying SouthImp-Exp trading (i.e., from the spread product, not the MLSA payment) was uneconomic, which supports the conclusion that a course of business and a scheme to defraud existed.

140. We reject Respondents' reliance on prior Commission orders to claim that any profit-driven actions in response to pricing incentives are not fraudulent.³⁵¹ As we found in *City Power*,³⁵² the *Lake Erie Loop Flow* and *Blumenthal* orders are distinguishable and involved trading behavior that differed significantly from Respondents' conduct:

The *Lake Erie Loop Flow* matter involved responses to price signals created by market fundamentals that indicated that it was cheaper to schedule energy to flow clockwise around Lake Erie than to flow it in the more direct, counterclockwise path. Those transactions were executed to lower market participants' costs based on market fundamentals for transactions they already sought to engage in, and were not created by any intentional actions of market participants to obstruct an otherwise well-functioning market. . . . Nor does the *Blumenthal* order's mention of "rational economic behavior" absolve Respondents' actions here. That case dealt with capacity suppliers faced with inconsistent scheduling requirements between ISO-New England and the New York Independent System Operator that nevertheless attempted to provide capacity pursuant to their requirements.³⁵³

The transactions in *Lake Erie Loop Flow* and in *Blumenthal* were therefore significantly different from Respondents' zero-spread, uneconomic transactions placed solely or primarily to capture MLSA and they thus provide no support for Respondents' argument.³⁵⁴

³⁵¹ Answer of Coaltrain and Individual Respondents at 35-36.

³⁵² *City Power*, 152 FERC ¶ 61,012 at P 104; *see also Chen*, 151 FERC ¶ 61,179 at P 81.

³⁵³ *City Power*, 152 FERC ¶ 61,012 at P 104 (citations and internal quotations omitted).

³⁵⁴ *See id.* P 116 ("... Respondents' trades were not scheduled via an electronic transmission tag so there was no mechanism by which PJM automatically could recognize their related nature. . . . Moreover, unlike the *Lake Erie Loop Flow* case, here,

(continued...)

141. Respondents also rely on stipulations contained in two separate Stipulation and Consent Agreements (Agreements) in support of this argument.³⁵⁵ The language relied on by Respondents reflects factual stipulations between the parties to Agreements involving Revenue Sufficiency Guarantee costs charged against virtual trades³⁵⁶ and transmission and export costs charged against physical electricity, respectively.³⁵⁷ In contrast to this matter, in both instances the charges at issue were related to the underlying trades.³⁵⁸ We have now repeatedly held that the MLSA is not part of the underlying UTC transaction.³⁵⁹ Thus, setting aside the fact that these stipulations are not Commission precedent, they do not support Respondents' position.

142. Respondents suggest that their OCL Trades were legitimate because: (i) they placed "no trades where the sole profit opportunity was perceived to be MLSA;" (ii) their trades were "capable of achieving favorable price spreads;" (iii) they "pursued trades that [they] believed offered an opportunity for price arbitrage, and simply accounted for MLSA, among all other costs and credits in a comprehensive analysis of those transactions;" and (iv) "the consistent priority in Coaltrain's trading was to focus on price spreads and all of the costs and credits associated with a proposed trade."³⁶⁰ We reject those suggestions as factually inaccurate. As we have set forth above, the Record demonstrates that Respondents affirmatively sought "low-risk" trades and voluntarily and needlessly scheduled paid transmission driving up transaction costs because they had as

Respondents did not simply follow pricing incentives for transactions they were already engaged in, but instead they created a high volume of new fraudulent transactions solely to receive MLSA payments.")

³⁵⁵ *MISO Virtual and FTR Trading*, 146 FERC ¶ 61,072, at attached Agreement at P 9; *Deutsche Bank*, 142 FERC ¶ 61,056, at attached Agreement at P 13.

³⁵⁶ *MISO Virtual and FTR Trading*, 146 FERC ¶ 61,072, at attached Agreement at P 9.

³⁵⁷ *Deutsche Bank*, 142 FERC ¶ 61,056 at attached Agreement at P 13.

³⁵⁸ In fact, we address above the deduction of transmission costs from the profitability of the underlying UTC much like those costs were considered in *Deutsche Bank. Id.*

³⁵⁹ *City Power*, 152 FERC ¶ 61,012 at P 102; *Chen*, 151 FERC ¶ 61,179 at P 78.

³⁶⁰ Answer of P. Jones, R. Jones, and Wells at 4-5; Answer of Coaltrain and Individual Respondents at 24-25, 33, 52.

their sole or primary price signal the MLSA. We are persuaded that the OCL Trades were not “rational” trades in which the traders considered all “relevant information” available to them.³⁶¹ Instead, these trades focused on MLSA and we find that behavior to be fraudulent.

(4) **The SouthImp-Exp OCL Trades were inconsistent with supply and demand**

143. We agree with OE Staff’s position that the SouthImp-Exp OCL Trades were inconsistent with the fundamentals of supply and demand.³⁶² As we set forth above, the SouthImp-Exp nodes were defined by PJM as mathematically equivalent beginning on April 2, 2007 in the real-time market and April 3, 2007 in the day-ahead market.³⁶³ Moreover, as we explained in *City Power* and as PJM explained in Record evidence contained in this matter, the occasions of price divergence on this path were due to the impact of a de-energized bus.³⁶⁴ Thus, the zero-spread performance on the path was to be expected. Our analysis demonstrates the historical information for this path over similar timeframes resulted in a zero-spread performance. The limited non-zero spread experience during that timeframe was not only due to the impact of a de-energized bus, but it was almost always small and negative.³⁶⁵ That is, UTC trades would have overwhelming experienced losses on the price spread based on that historical performance (and even more money given Respondents’ purchase of transmission and other costs applied to the trade). Thus, we conclude there was no rational reason to expect the SouthImp-Exp trade to profit from a price arbitrage perspective. And, these trades were inconsistent with supply and demand fundamentals.

³⁶¹ See, e.g., Answer of Coaltrain and Individual Respondents at 25 n.98 (citing Lesser Report); see also Lesser Report at PP 53, 102-105, 243.

³⁶² Staff Report at 78-80.

³⁶³ See *supra* P 118.

³⁶⁴ See *supra* P 118.

³⁶⁵ See *supra* P 118. Our analysis of June to August 2008, June to August 2009, and June 2010 resulted in nine positive hours in the 5,136 hours examined. None of those nine hours resulted in a spread large enough to profit after average transaction costs of \$0.89 per MWh were deducted.

(5) **Respondents' SouthImp-Exp OCL Trades were deceptive**

144. Respondents argue that their SouthImp-Exp OCL Trades were not deceptive and therefore not fraudulent.³⁶⁶ We disagree for the same reasons we rejected these arguments in *City Power*.³⁶⁷ As we have said previously, “[f]raud is a question of fact that is to be determined by all the circumstances of a case.”³⁶⁸ The market purpose behind speculative UTC trades in PJM is to permit traders to arbitrage price spreads in the market to encourage convergence between the day-ahead and real-time markets.³⁶⁹ Respondents’ fraudulent, zero-spread trades could not and did not provide that benefit to the market. As we noted in *City Power*, however, Respondents placed their trades as market participants would place an arbitrage-based spread trade, except here they knew they would experience no price spread because the two points were consistently trading at the same price throughout the Manipulation Period. The nature and purpose of the trades—obtaining MLSA payments—was concealed and created the illusion of arbitrage trading between these points thereby subverting the PJM market. Specifically, as a result of Respondents’ deception, PJM distributed less in MLSA funds to those market participants who were engaged in behavior supportive of and beneficial to the PJM market and instead provided those MLSA funds to Respondents.³⁷⁰ In short, we find that Respondents defrauded PJM into allocating MLSA payments to Respondents by engaging in high volumes of fraudulent zero-spread UTC trades solely or primarily to collect MLSA payments.³⁷¹

(c) **NCMPAImp-Exp OCL Trades**

145. As we did with respect to City Power’s NCMPAImp-Exp trading and Respondents’ own SouthImp-Exp trading, we conclude that Respondents’ NCMPAImp-

³⁶⁶ See Answer of Coaltrain and Individual Respondents at 2, 18-19.

³⁶⁷ *City Power*, 152 FERC ¶ 61,012 at PP 140-141.

³⁶⁸ Order No. 670, FERC Stats. & Regs. ¶ 31,202 at P 50; see also *Chen*, 151 FERC ¶ 61,179 at P 95; *City Power*, 152 FERC ¶ 61,012 at P 115.

³⁶⁹ *Black Oak*, 122 FERC ¶ 61,208 at n.85.

³⁷⁰ See *infra* PP 303-309.

³⁷¹ *City Power*, 152 FERC ¶ 61,012 at P 141. See also *City Power*, 152 FERC ¶ 61,012 at PP 115, 160; *Chen*, 151 FERC ¶ 61,179 at P 95.

Exp OCL Trades were fraudulent. Like the SouthImp-Exp OCL Trades, Respondents self-identified the NCMPAImp-Exp OCL Trades as “OCL Strategy” trades in a Data Response to OE Staff.³⁷² Also like Respondents’ SouthImp-Exp OCL Trades, the evidence demonstrates that Respondents placed their NCMPAImp-Exp OCL Trades not for the purpose of hedging or arbitraging the price spreads, but instead to receive large shares of MLSA payments that otherwise would have been allocated to other market participants.³⁷³ NCMPAImp-Exp path trades exhibited an average price spread of \$0.01 per MWh in similar historic months including June through August 2009 and June 2010.³⁷⁴ Respondents’ own experience trading the NCMPAImp-Exp OCL Trades resulted in an average spread of \$0.11 per MWh. We are persuaded that pursuing these trades given the historic and actual spread performance of the path is consistent with Respondents’ efforts to minimize the price spread risk associated with UTCs so as not to interfere with their MLSA profits.³⁷⁵ Moreover, we are also persuaded that Respondents’ NCMPAImp-Exp OCL Trades were part of the OCL Strategy to garner MLSA payments because Respondents voluntarily used paid transmission for all such trades, thus making the trades eligible for MLSA.³⁷⁶

³⁷² See COALTRAIN011540 (spreadsheet of OCL Trades produced by Coaltrain on Dec. 19, 2012 in response to OE Staff’s 6th Data Request, identifying every “up-to congestion trade by Coaltrain . . . that constituted part of the OCL Strategy – including all trades that the trader him/herself identified as an OCL trade . . .”).

³⁷³ *City Power*, 152 FERC ¶ 61,012 at P 142; see also *Chen*, 151 FERC ¶ 61,179 at P 69.

³⁷⁴ See PJM Data Miner LMP Data. We analyzed these months because we find them to be similar to the months in which Respondents engaged in their NCMPAImp-Exp OCL Trades. This historic information would have been available to Respondents when they began placing their NCMPAImp-Exp OCL Trades on July 8, 2010. The average price spread from June through August, 2009 was \$0.00 per MWh while the average price spread in June of 2010 was \$0.02 per MWh. *Id.* Thus, the average spread from June through August, 2009 and June 2010 was \$0.01 per MWh. *Id.* While we do not consider May to be a similar month, even adding May 2009 and May 2010 to the analysis results in the same average spread of \$0.01 per MWh. *Id.* Specifically, the spread from May 3 through August 2009 was \$0.00 per MWh and the average spread from May through June 2010 was \$0.03 per MWh. *Id.*

³⁷⁵ *City Power*, 152 FERC ¶ 61,012 at P 143.

³⁷⁶ See Coaltrain and PJM Data.

146. In addition, contemporaneous evidence demonstrates that when Respondents ceased trading SouthImp-Exp on July 27, 2010 in response to the IMM raising concerns about trading that path, Respondents increased their volume of trading on the NCMPAImp-Exp path.³⁷⁷ We find this evidence demonstrates that the NCMPAImp-Exp OCL Trades were not only part of the same OCL Strategy as the SouthImp-Exp OCL Trades, but that after July 28 they became a renewed and greater focus of the scheme.³⁷⁸

147. Finally, as the average cost of a UTC trade including transmission was \$0.89 per MWh,³⁷⁹ we find that the uneconomic nature of these trades (without the addition of MLSA payments) was an anticipated result of trading this path and it is what Respondents experienced. Specifically, across the 230 hours on the 17 days Respondents traded the NCMPAImp-Exp path, it averaged a spread of approximately \$0.11 per MWh and resulted in a cumulative spread gain of approximately \$124,000. However, given the transaction costs associated with the trades, including the cost of Respondents' voluntarily purchasing transmission, Respondents' NCMPAImp-Exp OCL Trades lost approximately \$768,000. Once MLSA was paid to Respondents, however, the profit on the trades totaled approximately \$1.02 million.³⁸⁰

148. Based on this evidence and on communications, data, testimony, and other evidence in this matter we conclude that Respondents engaged in these uneconomic NCMPAImp-Exp OCL Trades to further their scheme to collect MLSA payments. We conclude that the NCMPAImp-Exp OCL Trades were fraudulent and violate section 222 of the FPA and the Anti-Manipulation Rule.

(1) **Communications, testimony, and other evidence demonstrate the existence of a scheme to defraud**

149. The NCMPAImp-Exp path was discovered as part of Respondents' efforts to analyze, select, and target trades for their OCL Strategy on paths with a zero or near-zero

³⁷⁷ See *id.*

³⁷⁸ *City Power*, 152 FERC ¶ 61,012 at P 143.

³⁷⁹ See 2011 01 06 MMU_MLSA_Referral 01 06 2011_Redacted.pdf at n.6 (cost of non-firm transmission is \$0.67 per MWh); 3d_DR_Trade_Data_COALTR (averaging the non-transmission charges paid by Coaltrain results in a figure of just over \$0.22 per MWh); see also PJM Data Miner LMP Data.

³⁸⁰ See Coaltrain and PJM Data.

spread.³⁸¹ On June 17, 2010, the same day that Mr. Hughes discovered and informed Mr. Sheehan of the SouthImp-Exp zero-spread path, he also discovered and informed Mr. Sheehan of the NCMPAImp-Exp path. Screenshots show Mr. Hughes used the Node Analyzer and Lost and Found tools to analyze the NCMPAImp-Exp path proximate in time to his analyses of the SouthImp-Exp path.³⁸² We conclude that since the SouthImp-Exp analyses were conducted on the same day and proximate in time to the NCMPAImp-Exp analyses, both were part of the same overall analyses. The June 17, 2010 Node Analyzer screenshots demonstrated that the NCMPAImp-Exp path had an average spread of negative \$0.03 per MWh for the timeframe Mr. Hughes analyzed it; that is, over that timeframe any trade on this path would have lost money on the spread and, given the underlying costs of Respondents' trades which always used paid transmission, such trades would have lost even more than \$0.03 per MWh.³⁸³

150. Mr. Hughes also considered historic MLSA payments on June 17. A PJM settlement detail screen appears in the foreground of the June 17 screenshot of the Node Analyzer tool applied to the NCMPAImp-Exp path.³⁸⁴ That settlement screen lists "Charge Types" of "Transmission Loss Credits" for a period of days and hours in June 2010.³⁸⁵ While Mr. Hughes could not explain the screen in testimony,³⁸⁶ based on Record data we conclude that (i) the screen supplies transmission loss credits for the days and hours listed; and (ii) awarded MLSA can be calculated with that information.³⁸⁷ We

³⁸¹ See *supra* PP 108-111.

³⁸² Hughes Test. Exs. CT-44, CT-45, CT-46.

³⁸³ We are persuaded that the June 17, 2010 screenshot of the Lost and Found tool demonstrates that Mr. Hughes was focused on the NCMPAImp-Exp path as he highlighted the day-ahead spread on the path. *Id.* Ex. CT-44. This Lost and Found screenshot not only indicates the path's average spread of negative \$0.03 per MWh but also demonstrates the path's "low-risk" nature through the low maximum and minimum constraint values. *Id.*, Tr. 111:11-115:15, 117:22-118:1.

³⁸⁴ *Id.* Ex. CT-45.

³⁸⁵ *Id.* Ex. CT-45, Tr. 115:20-25.

³⁸⁶ *Id.* Tr. 116:1-117:5.

³⁸⁷ Submission of Investigative Material\Data Responses\PJM\PJM 2011 09 20\04.5-DR4-Simulated Loss Credit Rate by type Aug2008-Sept16-2010.xlsx. MLSA for a particular hour would be calculated by multiplying the loss credit figure times the

(continued...)

find historic MLSA payments were considered to determine whether or not the trade fit Respondents' scheme to focus on zero or near-zero spread trades to garner MLSA payments. We are persuaded Mr. Hughes found the NCMPAImp-Exp path to be consistent with the parameters of his assignment because, like the SouthImp-Exp path, he informed Mr. Sheehan about it.³⁸⁸

151. Before placing their first NCMPAImp-Exp trade for trade date July 8, 2010, Respondents again reviewed the spread performance of NCMPAImp-Exp. July 2, 2010 screenshots³⁸⁹ show Mr. Robert Jones analyzed the path and found an average spread of \$0.04 per MWh—a spread that still would be subsumed by the costs associated with the trade.³⁹⁰ Despite the unprofitable historic performance uncovered by both Messrs. Hughes and Robert Jones, Mr. Robert Jones proposed placing a meg-tester trade on NCMPAImp-Exp.³⁹¹ For trade dates July 2 and July 3, Respondents placed meg-testers on the NCMPAImp-Exp path without paid transmission which successfully cleared.³⁹² Both meg-testers resulted in net losses even without the added cost of paid transmission. Nonetheless, Respondents considered this path desirable enough to place 230 hours of

number of MWh. We note that the hours in the PJM spreadsheet are “hour beginning” whereas the hours in Mr. Hughes' screenshot are “hour ending.”

³⁸⁸ Hughes Test. Ex. 55; COALTRAIN012639, row 750. The screenshot depicting Mr. Hughes' communication to Mr. Sheehan was time stamped at 4:58:02 and stated “NCMPAExpNCMPAImp.” Hughes Test. Ex. 55. According to the key-stroke software, Mr. Hughes wrote to Mr. Sheehan: “NCMPA-Imp-Exp (in the correct order this time!)” on June 17, 2010 at 4:58:31 p.m. COALTRAIN012639, row 750. We conclude that Mr. Hughes communicated with Mr. Sheehan about the path on at least one other occasion on that day where he incorrectly reversed the path direction.

³⁸⁹ R. Jones Test. Ex. CT-RJ 118.

³⁹⁰ *See supra* P 147.

³⁹¹ R. Jones Test. Ex. CT-RJ 126; R. Jones Test. Tr. 202:10-203:24. Mr. Robert Jones testified that Respondents completed meg-testers to determine whether a path would clear the PJM software. R. Jones Test. Tr. 203:21-204:18. The screenshot demonstrates that Mr. Robert Jones posted his meg-tester comment on the internal instant messaging system and that Messrs. Peter Jones and Miller each saw and agreed with his proposal. R. Jones Test. Ex. CT-RJ 126.

³⁹² *See* Coaltrain and PJM Data.

trades across 17 days, needlessly increasing their expenses and decreasing the potential for any profit on the underlying trade by scheduling paid transmission in each hour.³⁹³

152. We conclude that Messrs. Robert Jones, Peter Jones, and Miller recommended placing the meg-tester³⁹⁴ and that Respondents engaged in 230 hours of trading on NCMPAImp-Exp using paid transmission because the historical spread information matched the parameters of Respondents' scheme which had as its sole or primary price signal MLSA. Respondents knew they were not required to use paid transmission to trade NCMPAImp-Exp because they placed valid meg-testers without paid transmission. However, only by voluntarily using paid transmission would Respondents' trades be eligible for MLSA payments and, as with the SouthImp-Exp OCL Trades, the data demonstrates that MLSA was the overwhelming source for Respondents' NCMPAImp-Exp profits.³⁹⁵

153. Respondents argue that screenshots on the same day demonstrate Mr. Robert Jones performed market analyses before entering the meg-tester trades.³⁹⁶ In particular, Respondents rely on the Cloverdale Lexington constraint that is highlighted in a list of constraints in a screenshot.³⁹⁷ In testimony, Mr. Jones explained that "Clov Lex" is a constraint known as Cloverdale-Lexington.³⁹⁸ However, in the same entry in which Mr. Robert Jones makes his recommendation to place meg-testers on NCMPAImp-Exp, he states: "not for Clov Lex."³⁹⁹ Mr. Robert Jones explained in testimony that "not for Clov Lex" meant that "the [NCMPAImp-Exp] trade is not in reference to congestion

³⁹³ *See id.*

³⁹⁴ We conclude that the meg-tester was placed in furtherance of Respondents' scheme.

³⁹⁵ *See* Coaltrain and PJM Data.

³⁹⁶ Answer of Coaltrain and Individual Respondents at 39-40 (citing Robert Jones Snapshot 53628, July 2, 2010 8:07:51 a.m.). We address Respondents' argument concerning market fundamentals below. *See infra* P 203.

³⁹⁷ Robert Jones Snapshot 53628, July 2, 2010 8:07:51 a.m.

³⁹⁸ R. Jones Test. Tr. 202:17-19.

³⁹⁹ *Id.* Ex. CT-RJ 126 (screenshot stamped July 2, 2010 11:25:03 a.m., internal messaging conversation stamped July 2, 2010 9:07 a.m.).

caused by Cloverdale-Lexington.”⁴⁰⁰ We are therefore persuaded that Mr. Robert Jones’ meg-tester recommendation was unrelated to a constraint analysis.

154. Our conclusion with respect to the “low-risk,” near-zero spread nature of the NCMPAImp-Exp OCL Trades and their place in Respondents’ scheme is consistent with testimony provided by various Respondents concerning this path. For example, a June 30, 2010 screenshot demonstrates an analysis conducted by Mr. Wells using the Daily Strategy program in which he highlighted the NCMPAImp-Exp path. That analysis showed the NCMPAImp-Exp path with an average \$0.10 per MWh spread for the timeframe he analyzed.⁴⁰¹ During testimony, Mr. Wells reviewed this screenshot and described this analysis as one of his “low risk strategies.”⁴⁰² Mr. Wells testified that the screenshot’s “[con]straint risk”⁴⁰³ column demonstrated that his June 30, 2010 analysis of the NCMPAImp-Exp path showed that the path had almost no risk.⁴⁰⁴ Mr. Wells further described the NCMPAImp-Exp path as the “perfect example of a low-risk trade.”⁴⁰⁵ Mr. Wells’ testimony therefore underscores that the performance Respondents

⁴⁰⁰ *Id.* Tr. 202:17-203:20. We also reject Respondents’ argument that this screenshot refutes OE Staff’s allegation that NCMPAImp-Exp had small price spreads. Answer of Coaltrain and Individual Respondents at 40. Respondents point out that the screenshot indicates positive price spreads, some of which were above \$1 per MWh. *Id.* (citing Robert Jones Snapshot 53628, July 2, 2010 8:07:51 a.m.). Notably, only four days of spread calculations appear on this screenshot. While 25 hours result in positive price spreads across the 82 hours depicted, that number drops to 4 hours when considering only results in hours 10-22. As detailed below, 97 percent of Respondents’ OCL Trades occurred in hours ending 10-22. *See infra* PP 209-210, 229. Moreover, this screenshot indicates the average spread on NCMPAImp-Exp was only \$0.04 per MWh for the days examined. Both observations are consistent with OE Staff’s allegation and with the Commission’s conclusion as to the nature of Respondents’ scheme.

⁴⁰¹ Wells Test. Ex. 49; Wells Test. Tr. 133:12-24.

⁴⁰² *Id.* Ex. 49, Tr. 129:17-139:7.

⁴⁰³ An identical constraint risk for the NCMPAImp-Exp path appears in other screenshots from different time frames as well. R. Jones Test. Ex. 126 (screenshot July 2, 2010); Hughes Test. Exs. CT-44 (screenshot June 17, 2010), CT-46 (screenshot June 17, 2010).

⁴⁰⁴ Wells Test. Ex. 49; Wells Test. Tr. 132:2-7.

⁴⁰⁵ *Id.* Ex. 49, Tr. 132:2-7.

experienced during the Manipulation Period on this path was consistent with the performance Mr. Wells described as a “perfect example of a low-risk trade,” representative of Respondents’ “low-risk” OCL Strategy, and part of their scheme.⁴⁰⁶ The average spread on the NCMPImp-Exp path during the 17 days Respondents traded it was \$0.11 per MWh—only \$0.01 per MWh higher than the “perfect example of a low-risk trade” Mr. Wells described in the screenshot. We are again persuaded that the sole or primary purpose of the NCMPImp-Exp OCL Trades was to garner MLSA payments.

155. Our conclusion is further supported by the financial performance of Respondents’ NCMPImp-Exp OCL Trades. Over the 17 days Respondents engaged in the OCL Strategy on this path, they cleared 100 percent of their bids totaling approximately 1.088 million MWh and experienced approximately \$124,000 in underlying UTC spread revenues.⁴⁰⁷ However, Respondents paid approximately \$893,000 in transaction costs, approximately \$676,000 of which came from the transmission they voluntarily purchased.⁴⁰⁸ These figures, coupled with the fact that the spread revenue less transaction costs was negative in over 93 percent of the hours in which they traded NCMPImp-Exp, predictably resulted in overall losses of approximately \$768,000.⁴⁰⁹ However, Respondents benefited from the approximately \$676,000 they voluntarily paid for transmission as their trades therefore became eligible for MLSA payments of approximately \$1.79 million and resulted in net profits of \$1.02 million on the NCMPImp-Exp path.⁴¹⁰ The data makes clear that this path became profitable only as a result of MLSA payments.⁴¹¹

⁴⁰⁶ See *id.* Ex. 49, Tr. 132:2-7. See also Hughes Test. Tr. 111:19-24 (maximum and minimum constraint values for the NCMPI trade were the smallest of all the trades on the list for the time examined), Hughes Test. Ex. CT-44; Sheehan Test. Vol. II Tr. 260:6-22 (“constraint risk” column for NCMPImp-Exp on the dates covered indicates that there is not much negative or positive price movement and that it appears it is a lower risk/lower reward trade).

⁴⁰⁷ See Coaltrain and PJM Data.

⁴⁰⁸ See *id.*

⁴⁰⁹ See *id.*

⁴¹⁰ See *id.*

⁴¹¹ See *id.*

156. The data also demonstrates that Respondents increased their volume of trading on the path despite the uneconomic financial performance of the spread net transaction costs.⁴¹² For example, even though Respondents did not experience a single day where the underlying spread was profitable net the transaction costs in their first seven days of trading, they increased their daily volume on this path every day.⁴¹³ In the first seven days of trading, they progressed from trading a total of 13,000 MWh per day to a total of 73,450 MWh. In the next six days of trading they traded one day at 37,023 MWh, three days between 44,000 and 47,574 MWh, one day at 65,135 MWh, and one day at 84,500 MWh. Again, Respondents did not experience a net profit on the spread after deducting transaction costs on any of these days.⁴¹⁴ Nonetheless, on their last four days of trading, Respondents cleared over 100,000 MWh a day on this path—clearing 143,780 MWh on their highest day.⁴¹⁵ Again, not one of these days was profitable from the net spread after deducting transaction costs.⁴¹⁶ Every day but the last, however, experienced a profit once the MLSA payments were considered. We conclude this demonstrates MLSA profits were the reason for the increased trading volume.

157. The substantial increase in trading volume during the last four days coincides with the IMM informing Respondents about its concerns with Respondents' SouthImp-Exp OCL Trades. By July 26, 2010 Respondents understood that the IMM was concerned with their SouthImp-Exp OCL Trades. On July 27, Mr. Peter Jones informed the IMM that it was the last day Respondents would trade SouthImp-Exp.⁴¹⁷ On that very same day, Respondents placed NCMPAImp-Exp OCL Trades for the first time in volumes over 100,000 MWh.⁴¹⁸ We are persuaded by this timing and the fact that both paths were part of the OCL Strategy⁴¹⁹ that Respondents increased the volume on the NCMPAImp-Exp

⁴¹² *See id.*

⁴¹³ *See id.*

⁴¹⁴ *See id.*

⁴¹⁵ *See id.*

⁴¹⁶ *See id.*

⁴¹⁷ COALTRAIN000330 Question 10 (1054).wav, Transcript of COALTRAIN000330 (1054).pdf.

⁴¹⁸ *See* Coaltrain and PJM Data.

⁴¹⁹ Respondents identified both paths as being part of their OCL Strategy in a Data Response to OE Staff. COALTRAIN011540.

path beginning on trade day July 28 to make up for the loss of the MLSA payments garnered by their SouthImp-Exp OCL Trades.

(2) **Pattern**

158. As we held with the SouthImp-Exp OCL Trades, we similarly conclude that the timing of Respondents' NCMPAImp-Exp OCL Trades reflect their fraudulent nature.⁴²⁰ For several years before they began trading OCL Trades, Respondents engaged in successful Spread Trades which appeared to have promoted price convergence consistent with the UTC product's purpose.⁴²¹ Respondents devised and implemented the OCL Trades only after having reviewed PJM's June 1, 2010 *Report of Refund* and becoming aware of the size of the MLSA payments being awarded to market participants.⁴²² As a result of efforts to identify trades consistent with Respondents' scheme to garner MLSA payments, the NCMPAImp-Exp path was discovered and shared with Mr. Sheehan. Before placing their first NCMPAImp-Exp OCL Trades, Respondents were aware of the uneconomic historic performance of the trade and their own meg-testers of the path resulted in net losses even without the additional cost of transmission.⁴²³ Nonetheless, Respondents began trading this path on July 8, 2010.⁴²⁴

159. The pattern of the NCMPAImp-Exp OCL Trades similarly reflects their fraudulent nature: the pattern of Respondents' Spread Strategy trading was qualitatively and intrinsically different from the pattern of Respondents' NCMPAImp-Exp OCL trading.⁴²⁵ For example, unlike the Spread Trades where Respondents sought to avoid or reduce the costs associated with transmission and purchased transmission for only 18 percent (by

⁴²⁰ See *supra* PP 107-114, 130-134.

⁴²¹ *Supra* P 107.

⁴²² *Supra* PP 106-107.

⁴²³ See *supra* P 151.

⁴²⁴ See Coaltrain and PJM Data. Moreover, once Respondents determined to stop trading their successful SouthImp-Exp OCL Trades following discussions with the IMM where it expressed concern about them, Respondents increased their NCMPAImp-Exp OCL Trades to over 100,000 MWs per day. See *supra* P 146.

⁴²⁵ *Supra* PP 37-40, 107.

volume) of the trades,⁴²⁶ Respondents voluntarily used paid transmission for 100 percent (by volume) of their NCMPImp-Exp OCL Trades, thereby substantially driving up the cost of the underlying trade.⁴²⁷ We conclude here, as we did with the SouthImp-Exp OCL Trades, this difference reflects the different nature of the Strategies: the Spread Trades attempted to maximize profit from the price spread whereas the OCL Trades were placed with the MLSA payments as the sole or primary price signal and eligibility for those MLSA payments required the use of paid transmission.⁴²⁸

160. Moreover, the volume of the Spread Trades was lower than the NCMPImp-Exp OCL Trades.⁴²⁹ For example, while Respondents engaged in 1,649 NCMPImp-Exp transactions from July 8 to July 31, 2010, the cleared volume associated with those transactions was approximately 1.088 million MWh or approximately 660 MWh per transaction. On the other hand, over the longer timeframe of June 15, 2010 through September 2, 2010, while Respondents engaged in approximately 38,262 Spread Strategy transactions—over 23 times more than the OCL Strategy transactions—the cleared volume of Spread Strategy transactions was approximately 2.1 million MWh or approximately 55 MWh per transaction. Thus, while there were fewer NCMPImp-Exp transactions by number, the average volume of each transaction was 12 times greater. Again, the different patterns are consistent with the very different purposes of the trades: there was a price spread risk attached to the Spread Trades, which Respondents sought to minimize with their “low-risk” (near-zero spread) NCMPImp-Exp OCL Trades.⁴³⁰ For

⁴²⁶ *Supra* P 40; Coaltrain and PJM Data. The figures for the NCMPImp-Exp OCL Trades were calculated over the timeframe Respondents traded that path: July 8-July 31, 2010. The figures for the Spread Trades were calculated for the timeframe Respondents engaged in their OCL Strategy trading overall: June 15-September 2, 2010. These are the timeframes used for all comparisons between the Spread and NCMPImp-Exp OCL Trades in this section of this Order.

⁴²⁷ Moreover, as described above, Respondents knew they were not required to use paid transmission to place these trades. *See supra* P 152.

⁴²⁸ *See supra* P 131.

⁴²⁹ *See supra* P 132.

⁴³⁰ As Mr. Wells described: in a “low risk” trade “I’m looking for something where the differential is not big, then I certainly don’t want something that can take a big hit from some unintended consequence. . . .There’s not a lot of things that make it go bad; there’s not a lot of things that make it go good.” Wells Test. Tr. 134:8-17 (emphasis added).

example, the average price spread associated with the Spread Trades from June 15 through September 2, 2010 was \$0.82 per MWh.⁴³¹ Thus, Respondents approached the riskier Spread Trades with lower volumes. In contrast, the NCMPAImp-Exp OCL Trades had an average price spread of \$0.11 per MWh over the course of Respondents' trading and were overwhelmingly dependent on MLSA for their profitability.⁴³² Respondents increased that profitability by increasing trade and paid transmission volume to increase MLSA payments.

161. The difference in patterns between the two strategies is also observed in the average profit per MWh under each Strategy, without consideration of MLSA payments: after the deduction of transaction costs, the NCMPAImp-Exp OCL Trades lost \$0.71 per MWh across the relevant trading period while the Spread Trades gained \$0.62 per MWh.⁴³³ This is consistent with the different purpose of each strategy: having as its sole or primary price signal the MLSA, the OCL Strategy was not focused on profit from the underlying spread but instead from MLSA payments, whereas the Spread Strategy sought to profit from the underlying spread and was not focused on MLSA payments.

162. For the aforementioned reasons, we conclude that the timing and pattern of Respondents' trading on NCMPAImp-Exp compared to their Spread Trades highlight the fraudulent nature of the NCMPAImp-Exp OCL Trades.⁴³⁴

(3) **The NCMPAImp-Exp OCL Trades were uneconomic and contrary to the PJM UTC market design purpose**

163. As we did in *City Power*, we base our finding that the NCMPAImp-Exp OCL Trades were fraudulent on Respondents' purpose for placing such trades, but our decision is consistent with the uneconomic nature of the trades.⁴³⁵ While Respondents'

⁴³¹ See Coaltrain and PJM Data.

⁴³² The average price spread of \$0.11 per MWh was already well below the transaction costs without paid transmission and over seven times less than the average transaction costs including paid transmission. See *supra* P 147.

⁴³³ See Coaltrain and PJM Data.

⁴³⁴ Respondents understood the difference between the Spread Strategy and OCL Strategy as we set forth above. See *supra* PP 107, 131-134.

⁴³⁵ *City Power*, 152 FERC ¶ 61,012 at P 157.

NCMPAImp-Exp OCL Trades earned approximately \$124,000 from the price spread, that sum was offset by transmission and other costs over seven times greater than those spread profits which resulted in losses of approximately \$768,000. However, by garnering MLSA payments through the use of paid transmission, Respondents' NCMPAImp-Exp OCL Trades generated a net profit of approximately \$1.021 million.⁴³⁶ As we held with respect to Respondents' SouthImp-Exp OCL Trades and the Other OCL Trades, we find Respondents' NCMPAImp-Exp OCL Trades were uneconomic and contrary to the market design purposes for which PJM offered the UTC product.⁴³⁷ We find that not only were Respondents' NCMPAImp-Exp OCL Trades routinely unprofitable,⁴³⁸ but the historical performance of the path made this the anticipated result.⁴³⁹

164. Respondents' strategy is improper and fraudulent given the evidence presented. We find that Respondents' NCMPAImp-Exp OCL Trades did not have as "their sole or primary price signal the price risk of the underlying UTC spread" and that they were not "placed with the purpose of profiting based on the direction of the spread."⁴⁴⁰ Further, like the traders in *City Power*, and like Respondents' own trading on SouthImp-Exp and the Other OCL Trades, even though Respondents were not required to purchase transmission under the PJM tariff to place these trades, they did so in order to be eligible for MLSA.⁴⁴¹ By doing so, however, Respondents greatly increased their transaction costs. Had they wanted to increase the likelihood of earning profits from the spread, Respondents would have placed these trades using free transmission, foregoing the

⁴³⁶ See Coaltrain and PJM Data.

⁴³⁷ See *supra* PP 135-142; see *infra* PP 188-191; See also *City Power*, 152 FERC ¶ 61,012 at PP 100-104, 137-139,157-159; *Chen*, 151 FERC ¶ 61,179 at PP 76-77.

⁴³⁸ The price spread on the NCMPAImp-Exp OCL Trades averaged \$0.11 per MWh over the 230 hours in which Respondents traded the path, but the path was affirmatively unprofitable after all transaction costs were deducted, including transmission, in all but 17—approximately 7 percent—of all hours.

⁴³⁹ See *supra* PP 145, 149-151. See also, Wells Test. Ex. 49; Wells Test. Tr. 129:17-134:17; R. Jones Test. Ex. 126; Hughes Test. Exs. CT-44, CT-46; Hughes Test. Tr. 111:19-24; Sheehan Test. Vol. II Tr. 260:6-22.

⁴⁴⁰ *City Power*, 152 FERC ¶ 61,012 at P 158 (citing *Chen*, 151 FERC ¶ 61,179 at P 80).

⁴⁴¹ *Id.* P 159.

MLSA payments but greatly reducing the costs of their trading. Instead they chose to pay for transmission services. Accordingly, we find Respondents followed a trading strategy to further a scheme to collect MLSA payments and that obtaining these payments was the motivating force behind their NCMPAImp-Exp OCL Trades.

165. As we have previously held, uneconomic trading such as Respondents' trading provides an "inducium to be considered among the overall facts that the Commission examines when considering a potential violation of its Anti-Manipulation Rule, but standing alone it is neither necessary nor dispositive."⁴⁴² Here, we find that the uneconomic results of Respondents' NCMPAImp-Exp trading from the spread product (not the MLSA payment) support the conclusion that a course of business and a scheme to defraud existed.⁴⁴³

166. In sum, we conclude from the evidence that Respondents' NCMPAImp-Exp OCL Trades were neither consistent with how the product historically traded nor aligned with the arbitrage purpose of those trades. We also conclude from the evidence presented in this matter that the NCMPAImp-Exp OCL Trades had as their sole or primary price signal the MLSA.⁴⁴⁴ And, we find Respondents' trading therefore is fraudulent.

(4) The NCMPAImp-Exp OCL Trades were inconsistent with supply and demand

167. We agree with OE Staff's position that the NCMPAImp-Exp OCL Trades were inconsistent with the fundamentals of supply and demand.⁴⁴⁵ As we set forth above, the NCMPAImp-Exp path experienced an average spread of only \$0.11 per MWh during the

⁴⁴² *Chen*, 151 FERC ¶ 61,179 at P 77 (citations and internal quotations omitted). See also *City Power*, 152 FERC ¶ 61,012 at P 101; *supra* P 139.

⁴⁴³ For the same reasons set forth above, we again reject: (i) Respondents' reliance on prior Commission orders to claim that any profit-driven actions in response to pricing incentives are not fraudulent; and (ii) Respondents' arguments that they "pursued trades that [they] believed offered an opportunity for price arbitrage, and simply accounted for MLSA, among all other costs and credits in a comprehensive analysis of those transactions." See *supra* P 140.

⁴⁴⁴ See *supra* P 145; see also *Chen*, 151 FERC ¶ 61,179 at P 80; *City Power*, 152 FERC ¶ 61,012 at PP 103, 139, 158, 159.

⁴⁴⁵ Staff Report at 83.

Manipulation Period. Respondents described a trade on this path that had a price spread of \$0.10 per MWh as the “absolutely” perfect “low-risk” trade, which presents additional evidence that the price spread’s lackluster performance was not only expected, but the reason it was picked.⁴⁴⁶ The fact that the average transaction costs were \$0.89 per MWh demonstrates just how little opportunity for profit existed on this path without MLSA: indeed, the spread experienced a positive profit after transaction costs in only 17 of the 230 hours in which Respondents traded it.⁴⁴⁷ Moreover, the total profits in those 17 hours were only approximately \$38,400, which had little impact on the total transaction costs of Respondents’ trading on this path of over \$893,000.⁴⁴⁸ The uneconomic actual performance on the path is consistent with the historical average spread performance of \$0.01 per MWh over similar timeframes,⁴⁴⁹ which information was available to Respondents at the time they began trading this path. We conclude that there was no mystery to the financial performance of this path and there was no rational reason to expect NCMPA Imp-Exp OCL Trades to profit. These trades were inconsistent with supply and demand fundamentals.

(5) **Respondents’ NCMPA Imp-Exp OCL Trades were deceptive**

168. Respondents argue that their NCMPA Imp-Exp OCL Trades were not deceptive and therefore not fraudulent.⁴⁵⁰ We disagree for the same reasons we rejected these arguments in *City Power*.⁴⁵¹ Respondents’ fraudulent trades were undertaken with MLSA as the sole or primary price signal, not price spread arbitrage which could result in a benefit to the market.⁴⁵² As we stated in *City Power*, however, Respondents placed

⁴⁴⁶ See *supra* P 154; Wells Test. Tr. 134:8-17.

⁴⁴⁷ See Coaltrain and PJM Data.

⁴⁴⁸ See *id.* We note that in one table in OE Staff’s Report this number is calculated as \$893,048 and in another table it is represented as \$868,000. See Staff Report at 34, 84. We calculate this number as \$893,048. Therefore, we accept this as the accurate number.

⁴⁴⁹ See *supra* P 145.

⁴⁵⁰ See Answer of Coaltrain and Individual Respondents at 2, 18-19.

⁴⁵¹ *City Power*, 152 FERC ¶ 61,012 at PP 140-141.

⁴⁵² As Mr. Wells described a “low risk” trade, “[t]here’s not a lot of things that make it go bad; there’s not a lot of things that make it go good.” Wells Test. Tr. 134:8-17. See also *supra* P 144.

their trades to conceal their nature and purpose and interfered with the functioning of the PJM market. The nature and purpose of the trades—obtaining MLSA payments—was concealed and created the illusion of arbitrage trading between these points, thereby subverting the PJM market. Specifically, as a result of Respondents’ deception, PJM distributed less in MLSA funds to those market participants who were engaged in behavior supportive of and beneficial to the PJM market and instead provided those MLSA funds to Respondents. We find that Respondents defrauded PJM into allocating MLSA payments to Respondents by engaging in high volumes of NCMPA Imp-Exp OCL Trades solely or primarily to collect MLSA payments, despite a small price spread between the points.⁴⁵³

(d) OCL Trades on 38 Other Paths

169. We conclude that Respondents’ trading on the 38 Other OCL paths (Other OCL Trades) was fraudulent because the evidence demonstrates Respondents placed them not for the purpose of hedging or arbitraging the price spreads, but instead to receive large shares of MLSA payments that otherwise would have been allocated to other market participants. As we discuss more fully below, like Respondents’ SouthImp-Exp and NCMPA Imp-Exp OCL Trades, we find that the Other OCL Trades were part of Respondents’ scheme to identify “low-risk,” zero or near-zero spread paths to minimize the price spread trading risk associated with UTCs so as not to interfere with their garnering MLSA payments. For example, the average price spread of Respondents’ Other OCL Trades was negative \$0.30 per MWh.

170. We also find it persuasive that Respondents: (i) admitted that all of the Other OCL Trade paths were part of their OCL Strategy by identifying them as such in a Data Response;⁴⁵⁴ (ii) frequently referred to trades on these paths as “OCL plays;”⁴⁵⁵ (iii) designated certain trades on these path as “OCL” on internal trade systems;⁴⁵⁶ and (iv) voluntarily used paid transmission for 99 percent (by volume) of the Other OCL Trades, thus making the trades eligible for MLSA.⁴⁵⁷ In addition, contemporaneous

⁴⁵³ *City Power*, 152 FERC ¶ 61,012 at P 160. *See also*, *City Power*, 152 FERC ¶ 61,012 at PP 115, 141; *Chen*, 151 FERC ¶ 61,179 at P 95.

⁴⁵⁴ *See* COALTRAIN011540 (spreadsheet of OCL Trades produced by Coaltrain on Dec. 19, 2012 in response to OE Staff’s 6th Data Request).

⁴⁵⁵ *See infra* P 176 n.477.

⁴⁵⁶ *See infra* P 176 n.479.

⁴⁵⁷ *See* Coaltrain and PJM Data.

evidence demonstrates that when Respondents ceased trading SouthImp-Exp on July 27, 2010 and NCMPAImp-Exp on July 31, 2010 in response to the IMM's concerns, Respondents' volume of trading on the Other OCL Trade paths increased.⁴⁵⁸ These facts, along with others discussed below, support our finding that the Other OCL Trades were part of the same OCL Strategy as the SouthImp-Exp and NCMPAImp-Exp OCL Trades and that after July 31, 2010, they represented a refocusing of that scheme.⁴⁵⁹

171. We reject Respondents' argument that because they executed trades on seven of these paths before the Manipulation Period and 16 of these paths after the Manipulation Period, this demonstrates that the Other OCL Trades are not part of a manipulative scheme.⁴⁶⁰ We have compared the volume, duration, hours bid, and transmission source both before and during the Manipulation Period on the seven pre-Manipulation Period paths and conclude that the pre-Manipulation Period trades on six of these paths were quantitatively and qualitatively different from the trades on these paths during the Manipulation Period.⁴⁶¹ With respect to the seventh pre-Manipulation Period path, CPLEImp-DukeExp, we conclude that the trades placed on this path in the three days leading up to June 15, 2010 were test trades for Respondents' OCL Strategy due to their proximity in time to the beginning of the OCL Trades, the volume of the trades, and the use of paid transmission. The fact that Respondents continued to trade certain paths post-Manipulation Period similarly does not inoculate the Other OCL Trades from a claim of manipulation. In fact, the Record demonstrates that Respondents engaged in UTC transactions before and after the Manipulation Period.⁴⁶² The evidence demonstrates,

⁴⁵⁸ *City Power*, 152 FERC ¶ 61,012 at P 143.

⁴⁵⁹ *Id.*

⁴⁶⁰ Answer of Coaltrain and Individual Respondents at 30 (citing Lesser Report at PP 216, 225). Respondents claim they executed trades on six of the Other OCL Trade paths before the Manipulation Period, but the Commission finds that they also traded a seventh path, specifically, CPLEImp-DukeExp. Similarly, Respondents claim they traded 17 of the Other OCL Trade paths after the Manipulation Period, but the Commission finds that they traded 16 of the Other OCL Trade paths after the Manipulation Period.

⁴⁶¹ See Coaltrain and PJM Data; see also Staff Reply at 37 (We have reviewed the data and our resulting calculations are the same as those presented by OE Staff.).

⁴⁶² Moreover, after the close of the Manipulation Period, with the exception of three days, all of the trades on these paths were placed using free transmission and therefore did not qualify for MLSA. The first of those three days occurred for trades

(continued...)

however, that the trading on these paths during the Manipulation Period was part of their manipulative scheme to garner MLSA profits.

172. Finally, we find that the performance of the Other OCL Trades was similar to the SouthImp-Exp and NCMPAImp-Exp OCL Trades. Specifically, while the Other OCL Trades lost an average of \$0.30 per MWh on the spread, given the average transaction costs of \$0.89 per MWh including transmission,⁴⁶³ these trades were unprofitable without the MLSA. As we set forth below, we find that this was not only anticipated by Respondents, it was their experience: Respondents' Other OCL Trades lost \$221,000 on the spread and paid over \$512,000 in transaction costs for a loss of over \$733,000 on the Other OCL Trades.⁴⁶⁴ Consistent with the performance of Respondents' SouthImp-Exp and NCMPAImp-Exp OCL Trades, however, once MLSA was paid to Respondents on the Other OCL Trades, the net profits totaled over \$452,000.⁴⁶⁵

173. As set forth in greater detail below, we are persuaded that the communications, data, testimony, and other evidence in this matter support our conclusion that Respondents engaged in these uneconomic trades to further their scheme to collect MLSA payments and that they diverted those MLSA payments from other market participants. We conclude that the Other OCL Trades were fraudulent and violate section 222 of the FPA and the Anti-Manipulation Rule.

placed by September 2, 2010, the close of the Manipulation Period, for trade day September 3 2010, the day after the close of the Manipulation Period, and involved approximately \$4,300 in transmission costs. Despite the fact that they were placed by September 2, 2010, they were not included in the trades presented to the Commission by OE Staff. The other two days reflected less than \$200 in total paid transmission. During the Manipulation Period, Coaltrain averaged \$45,000 in transmission costs each day pursuing its OCL Strategy, with that average reaching \$75,000 per day in July 2010 and decreasing to \$10,000 per day in August through September 2, 2010, after they ceased trading SouthImp-Exp and NCMPAImp-Exp. With these figures in mind, we conclude that having spent a total of \$200 across two days for transmission is consistent with the fact that Respondents no longer pursued MLSA as their primary price signal.

⁴⁶³ See *supra* note 379.

⁴⁶⁴ See Coaltrain and PJM Data.

⁴⁶⁵ See *id.*

(1) **Communications, testimony, and other evidence demonstrate the existence of a scheme to defraud**

174. While we agree with OE Staff's characterization of Respondents' SouthImp-Exp and NCMPImp-Exp OCL Trades as the "best" paths associated with the OCL Strategy,⁴⁶⁶ we are persuaded that the Other OCL Trades were equally part of that scheme. We reject Respondents' argument that certain Other OCL Trade days identified by OE Staff are not part of their OCL Strategy because those trade days were: (i) not specifically identified by Respondents to OE Staff as OCL Trades;⁴⁶⁷ or (ii) not identified as OCL Trades in their internal systems when the trade was placed but were later reclassified as OCL Trades.⁴⁶⁸ First, approximately 99 percent of the trades identified by OE Staff as OCL Trades were identified by Respondents as OCL Trades.⁴⁶⁹ With respect to the one percent of trades not so identified by Respondents, 92 percent involved Other OCL Trade paths.⁴⁷⁰ We are persuaded that each of those trades is properly included as an Other OCL Trade because each: (i) was placed on paths which Respondents identified as having had OCL Trades placed on them;⁴⁷¹ (ii) took place during the Manipulation Period; and (iii) was eligible for MLSA.⁴⁷²

⁴⁶⁶ See, e.g., Staff Report at 85.

⁴⁶⁷ Answer of Coaltrain and Individual Respondents at 46.

⁴⁶⁸ Answer of Sheehan, Miller, and Hughes at 5; Sheehan Decl. P 9.

⁴⁶⁹ COALTRAIN011540 (spreadsheet of OCL Trades produced by Coaltrain on Dec. 19, 2012 in response to OE Staff's 6th Data Request, identifying every "up-to congestion trade by Coaltrain . . . that constituted part of the OCL Strategy – including all trades that the trader him/herself identified as an OCL trade . . .").

⁴⁷⁰ The trades not identified by Respondents as OCL Trades involve only four paths. Three of the four are Other OCL Trade paths: BEAV DUQ UNIT1 to MICHFE; CPLEIMP to DUKEXP; and MISO to AK STEEL. The fourth path involved one day of trading on SouthImp-Exp which is consistent with every other day of trading on this path, including the garnering of MLSA on that day. Of this small group of trades not identified by Respondents as OCL Trades, 79 percent were on the BEAV DUQ UNIT1 to MICHFE path. See Coaltrain and PJM Data.

⁴⁷¹ See *supra* note 469.

⁴⁷² See Coaltrain and PJM Data.

175. To the extent Mr. Sheehan argues that 7,700 MWh of Other OCL Trades attributed to him are not OCL Trades, we also reject this argument.⁴⁷³ Coaltrain—which Mr. Sheehan co-owned with Mr. Peter Jones—responded to OE Staff’s data requests and identified these 7,700 MWh as OCL Trades. Coaltrain’s data responses were attested to by co-owner Mr. Peter Jones, who swore to the accuracy of the information contained therein.⁴⁷⁴ In that same set of data responses and subject to the same affidavit submitted by Mr. Peter Jones, Coaltrain affirmatively identified Mr. Sheehan as an individual who “conducted transactions utilizing the OCL strategy.”⁴⁷⁵ Finally, Respondents report that Coaltrain’s OCL label became available on its internal systems only around June 23, 2010, after Mr. Sheehan placed the 7,700 MWh of trades.⁴⁷⁶ This indicates that Mr. Sheehan did not affirmatively fail to label these trades as OCL, he simply could not do so at the time because the label did not yet exist. We find that Coaltrain’s sworn data responses identifying these as OCL Trades and stating that Mr. Sheehan conducted such trades, coupled with the date on which the internal OCL label was available to Coaltrain traders support our conclusion that the 7,700 MWh are properly part of the Other OCL Trades.

176. Other contemporaneous evidence supports our conclusion that the Other OCL Trades were part of Respondents’ fraudulent scheme. Specifically, internal trade blotter comments confirm that the various Respondents referred to trades on certain of these Other OCL Trade paths as OCL Trades⁴⁷⁷ and substantiate Respondents’ focus on

⁴⁷³ Answer of Sheehan, Miller, and Hughes at 5.

⁴⁷⁴ See Coaltrain Response to Enforcement’s Sixth Data Request (Dec. 19, 2012).

⁴⁷⁵ See *id.* at Question No. 7.

⁴⁷⁶ Answer of Sheehan, Miller, and Hughes at 5.

⁴⁷⁷ See, e.g., COALTRAIN011542, Vote-Comments Tab, Row 2738 (Mr. Robert Jones, indicating a “Yes” vote comments on Rockport to AK Steel trade for market day June 19, 2010 as “OCL Play 800 megs 12-22.”), Vote-Comments Tab, Row 4772 (Mr. Peter Jones, indicating a “Yes” vote comments “OCL 10-22” for Market Day July 30, 2010 on the OVEC to EBEND2 path), Vote-Comments Tab, Row 4787 (Mr. Robert Jones, indicating a “Yes” vote for OVEC to EBEND2 path for Market Day July 31, 2010 comments “OCL play 10-22...300 megs.”), Vote-Comments Tab, Row 4783 (Mr. Robert Jones, indicating a “Yes” vote comments “300 megs 10-22...OCL” for Market Day July 31, 2010 on the OVEC to Zimmer path).

garnering MLSA.⁴⁷⁸ In addition, screenshot evidence indicates that the traders designated certain of the Other OCL Trade paths as part of the OCL Strategy by labeling them “OCL” in their internal systems⁴⁷⁹ and that the purpose of these trades was to find “low-risk” trades to garner MLSA. For example, by August 19, 2010, Respondents had traded the OVEC to BECKJORD 6 Other OCL Trade path for 7 days⁴⁸⁰ with an average spread of negative \$0.09 per MWh and losses of \$27,956 after deducting transaction costs. After including MLSA payments, however, this path earned net profits of \$32,727 for those days. An August 19, 2010 screenshot shows that Mr. Wells analyzed the path and calculated its average spread as \$0.07 per MWh for August 18, 2010. Despite the losses and the average negative spread Respondents experienced over the previous six days, Mr. Wells recommends the path as an:

OCL play – Looking at like days, loss credits could be in the
1.7 – 1.8 range. Not too shabby. Recommend 300 MW, 9-23.
...⁴⁸¹

Mr. Wells begins pitching this trade to his colleagues by estimating “loss credits” based on his analysis comparing next day projected load to historical “like-days.”⁴⁸² He makes no mention of the spread on this path. Since the average transaction costs on UTC transactions were \$0.89 per MWh, even the August 18, 2010 \$0.07 per MWh spread would not create a profitable trade on this path; only the addition of MLSA would do

⁴⁷⁸ See, e.g., COALTRAIN011542, Vote-Comments Tab, Row 2646 (Mr. Robert Jones, indicating a “Yes” vote for the Ebend2 to Miami Fort 7 for Market Day June 17, 2010 comments “HE 12-22 OCL play. . .150 megs. . .So far this month the best hours for losses are 12-22 for an average of \$1.38 in losses.”). See also *infra* P 177.

⁴⁷⁹ See, e.g., Wells Test. Ex. 18 (August 6, 2010 8:00:22 a.m.) (PJM-UpTo strategy was listed as “OCL” in the market Interface application); Wells Test. Tr. 97:5-11. Mr. Wells comments in a separate box on the same screenshot: “#8 OCL Play using low risk filter (max DA \$5 and min Sprd -\$10.”). Wells Test. Ex. 18 (August 6, 2010 8:00:22 a.m.).

⁴⁸⁰ We include August 19, 2010 in this calculation as the trades for that day would have been placed on August 18.

⁴⁸¹ Wells Test. Ex. 92 (August 19, 2010 7:07:27 a.m.).

⁴⁸² Mr. Wells testified that a “like day would be a similar day, say, load wise, similar day temperature wise. You think that the electricity usage is going to be comparable.” *Id.* Tr. 197:16-19.

that. We are persuaded that the only reason this trade does not appear “shabby” is that Mr. Wells predicts MLSA payments to be between \$1.70 and \$1.80. And, we conclude that placing this trade therefore was consistent with Respondents’ scheme.⁴⁸³ That the price signal for these trades was the MLSA is further borne out by the fact that after Mr. Wells’ recommendation, Respondents continued to trade OVEC to BECKJORD6 for an additional 6 days using paid transmission each and every day.⁴⁸⁴ In those 6 days, the path averaged a spread of negative \$0.02 per MWh and lost over \$15,358 after deducting transaction costs. Only after adding in MLSA payments did Respondents earn a profit of \$11,867.⁴⁸⁵

177. Additional screenshots of Mr. Wells’ computer further support our conclusion that Respondents’ focus on making Other OCL Trades was to garner MLSA payments and not to arbitrage the price spread. For example, on August 22, 2010, Mr. Wells described the path OVEC to MIAMIFORT8, which exhibited average negative spreads of \$0.19 per MWh and \$0.12 per MWh on the two days analyzed, as:

OCL play-Using 6/2 as a like day and limiting the hours (10-22) Loss Credits were 1.5 which is reasonable. Recommend 250 MW, 10-22.⁴⁸⁶

⁴⁸³ The actual financial performance on the path bears out our conclusion. On August 20 and 21—immediately following Mr. Wells’ comments—Respondents bid 300 MWh per hour each day in hours ending 9 through 22. They lost \$7,158 on these trades before MLSA but, when MLSA was added, they earned profits of \$2,956. *See* Coaltrain and PJM Data.

⁴⁸⁴ Respondents traded this path one additional day for trade day September 3, 2010, placing that trade on September 2, 2010. They used paid transmission and earned MLSA. However, it appears that this trade was not included in the Manipulation Period by OE Staff.

⁴⁸⁵ *See* Coaltrain and PJM Data. The total financial performance of this path bears out our conclusion. Respondents traded this path for 13 days, losing approximately \$1,800 on the spread and losing approximately \$43,300 when transaction costs were taken into account. However, because Respondents always used paid transmission on these transactions, they earned approximately \$88,000 in MLSA thereby netting approximately \$44,600. *See id.*

⁴⁸⁶ Wells Screenshot 99 (Snapshot 72655, August 22, 2010 10:21:26 a.m.).

Mr. Wells again estimates future loss credits by examining “like days.” He says nothing about the negative spread history which, we are persuaded, a trader focusing on profits from the arbitrage of a price spread would examine, focusing instead on the “reasonable” nature of the anticipated \$1.50 per MWh in MLSA. Mr. Peter Jones did not include any questions concerning Mr. Wells’ analysis or the negative spread performance when he wrote back to agree with the recommendation.⁴⁸⁷ We conclude that this trade was recommended because it was consistent with the scheme to have MLSA be the sole or primary price signal.⁴⁸⁸

178. Respondents’ creation and use of combination or “combo-mombo” trades placed on the Other OCL Trade paths also persuades us that the Other OCL Trades were part of Respondents’ fraudulent scheme.⁴⁸⁹ Respondents’ combination trades permitted them to place a trade between two points that would otherwise be an invalid UTC trade by inserting an interface between the two points thereby creating two separate trades.⁴⁹⁰ In

⁴⁸⁷ *Id.* (Mr. Peter Jones stated “good with this.”).

⁴⁸⁸ *See also* Wells Test. Ex. 89 (August 15, 2010 7:29:47 a.m.) (Describing the CPLEImp-NCMPAExp path with an average spread of negative \$0.02 per MWh and positive \$0.02 per MWh for the two days analyzed as “[l]ooking at like days for tomorrow I get 6-21 which posted a 1.5 loss credit, definitely worth playing. Recommend 300MW, 9-23. . .”).

⁴⁸⁹ Respondents argue that their combination trades were “substantially similar” to trades over which the “Commission declined to impose liability” in *Chen*. *See, e.g.*, Answer of Coaltrain and Individual Respondents at 18. Respondents argue that “pursuing a manipulation claim against Coaltrain, when the Commission declined to do so as to the direction trades in *Chen*, would send inconsistent messages to the market and constitute arbitrary and capricious agency action.” *Id.* Respondents are mistaken: the only trades before the Commission for consideration in the *Chen* matter were round-trip trades. *Chen*, 151 FERC ¶ 61,179 at P 3 (describing relevant trades as “‘round-trip’ UTC trades that canceled each other out by placing the first leg of the trade from locations A to B, and simultaneously placing a second leg of equal volume from locations B to A”); *see also infra* PP 204-205 (explaining that the existence of risk does not necessarily make trades non-manipulative).

⁴⁹⁰ *See, e.g.*, Robert Jones Test. Tr. 124:5-125:4; Miller Test. Tr. 126:22-127:14, Wells Test Tr. 75:18-76:4. While various witnesses mentioned increased risk associated with the combination trades if one leg of the combination trade failed to clear, we conclude based on the trade data that Respondents engaged in the combination trade for the sole or primary purpose of garnering MLSA and, as we set forth below, successfully

(continued...)

other words, a trade from A to B placed at the same time as a trade from B to C was the equivalent of a trade from A to C as the two trades at node B canceled each other out. By creating these trades Respondents increased their access to MLSA payments.

179. Screenshot evidence demonstrates Respondents' use of combination trades consistent with their OCL Strategy.⁴⁹¹ Specifically, a June 16, 2010 screenshot of Mr. Robert Jones' computer shows his analysis of the EASTBEND2 to MIAMIFORT7 path which exists as a UTC trade by combining two trades: EASTBEND2 to SOUTHWEST and SOUTHWEST to MIAMIFORT7. Mr. Robert Jones' analysis of EASTBEND2 to MIAMIFORT7 indicates an average spread of \$0.03 per MWh for the dates analyzed. A spread of this magnitude would not lead to a profitable trade once transaction costs were deducted.⁴⁹² A June 30, 2010 screenshot demonstrates that Mr. Wells examined the MIAMIFORT7 to EASTBEND2 path which could only exist as a UTC trade by combining two trades: MIAMIFORT7 to SOUTHWEST and SOUTHWEST to EASTBEND2. Mr. Wells looked at not only spread results, but at the

earned MLSA above and beyond any losses when the performance of all of the Other OCL Trade paths is considered. *See, e.g.,* R. Jones Test. Tr. 116:7-117:9; Answer of Coaltrain and Individual Respondents at 31-32 (claiming that Coaltrain's OCL Trades carried risk that they "might not clear," and stating that this risk "was particularly notable on combination trades"). Moreover, as we note below, risk is an indicium of fraud or manipulation in a matter such as this and the fact that a trade possesses risk does not provide an affirmative defense to manipulation. *See infra* P 204.

⁴⁹¹ *See, e.g.,* R. Jones Test. Ex. CT-RJ 14 (June 16, 2010 10:08:29 a.m.); Wells Test. Ex. 48 (June 30, 2010 7:10:59 a.m.).

⁴⁹² Respondents argue that this June 16, 2010 screenshot demonstrates they applied constraint-based analyses to place the OCL Trades and thus that Respondents were trading for next-day price arbitrage based on constraints. Answer of Coaltrain and Individual Respondents at 48-49. We disagree. While Respondents point to a real-time price divergence in hour 6 in the screenshot as well as a Cook Palisades price constraint which resulted in a 2 percent impact in the off-peak and no impact in the on-peak, if Mr. Robert Jones had "identified an opportunity for next day price arbitrage" as Respondents state, we would expect to see Respondents trading this path during the off peak. They did not. Instead, the trade data demonstrates that Respondents traded this path in hours occurring between 10 and 22. *See* Coaltrain and PJM Data. This is consistent with Respondents' overall OCL Strategy trading: 97 percent of the OCL Trades by volume were placed in on-peak hours when load, and therefore MLSA, were at their highest levels. *See* Coaltrain and PJM Data.

loss credits paid on an hourly basis. For the dates he examined, the average spread was negative \$0.05 per MWh but the average loss credits on each of the days exceeded the average spread. Again, a spread of negative \$0.05 per MWh could not produce a profit. This evidence substantiates our conclusion that the Other OCL Trades—including the combination trades—used as their sole or primary price signal MLSA rather than target profits through arbitrage of the price spread.⁴⁹³

180. Our conclusions are further supported by the financial performance of Respondents' Other OCL Trades. In the 47 days Respondents traded Other OCL Trades, they cleared over 97 percent of their bids totaling approximately 749,000 MWh.⁴⁹⁴ Unlike the average price spreads of \$0.00 per MWh on the SouthImp-Exp path and \$0.11 per MWh on the NCMPAImp-Exp path that Respondents experienced,⁴⁹⁵ their average price spread on the Other OCL Trades was negative \$0.30 per MWh. That is, on average, the Other OCL Trades lost money alone even before transaction costs were deducted.⁴⁹⁶

⁴⁹³ Consistent with these observations, trade data demonstrates the EASTBEND2 to MIAMIFORT7 and MIAMIFORT7 to EASTBEND2 combo paths were only profitable as a result of the MLSA. On MIAMIFORT7 to EASTBEND2, Respondents experienced profits after deducting transaction costs from the spread in only one of the 55 hours they traded. Similarly, on EASTBEND2 to MIAMIFORT7, Respondents experienced spread profits when transaction costs were deducted in only one of the 88 hours they traded.

⁴⁹⁴ See Coaltrain and PJM Data.

⁴⁹⁵ See *supra* PP 119, 145.

⁴⁹⁶ Respondents allege that because they experienced losses on ten Other OCL Trade paths even after the addition of MLSA they experienced trade risk inconsistent with manipulation. Lesser Report at P 223. We disagree. We have not found that Respondents' OCL Trades were risk-free nor do our conclusions rest on such a finding. See *infra* PP 204-205. Moreover, when Respondents experienced losses on these ten paths, the data demonstrates that they abandoned trading. Specifically with regard to eight of those paths, they abandoned trading: after a single day on four paths; after two days on three paths; and after three days on one path. See Coaltrain and PJM Data. Trading on the ninth path, AK Steele to Southwest, was abandoned after 7 days. However, looking only at the AK Steele to Southwest path alone is misleading for this purpose because it is one part of a "combo" transaction from AK Steel to Southwest and Southwest to Rockport. This combination of trades experienced net positive profit derived from MLSA, not the spread. Finally, the tenth path was abandoned after 11 days with a net loss after MLSA of approximately \$1,200. These losses were experienced

(continued...)

Specifically, across 675 hours of trading these paths, Respondents lost approximately \$221,000 in underlying UTC spread revenues.⁴⁹⁷ Further, Respondents lost even more money after accounting for the approximately \$512,000 in transaction costs incurred across these hours, the majority of which was due to the paid transmission they voluntarily purchased. The spread revenue net transaction costs was negative in over 82 percent of the hours in which they traded the Other OCL Trade paths, making it unsurprising that Respondents experienced overall losses on these trades of approximately \$733,000. However, as a result of the approximately \$349,000 in paid transmission, Respondents became eligible for MLSA payments of approximately \$1.19 million. The addition of MLSA resulted in Respondents earning net profits of approximately \$452,000 on the Other OCL Trade paths. Thus, we find that, as with Respondents' SouthImp-Exp and NCMPAImp-Exp OCL Trades, only the MLSA payments earned by Respondents made the Other OCL Trades profitable overall.

181. We recognize that Respondents experienced profitable hours trading the Other OCL Trade paths: they earned a total of approximately \$3,000 (net of transaction costs) on two of the 38 paths before MLSA was awarded. This does not, as Respondents suggest, immunize them from a finding of manipulation in this matter. For the reasons set forth in detail above, the evidence demonstrates that the Other OCL Trades are consistent with and part of Respondents' fraudulent scheme. The weight of that evidence is not overcome by a few profitable hours, nor are those few hours inconsistent with our conclusion.

182. Our conclusion that the Other OCL Trades were part of Respondents' manipulative scheme is also supported by changes in their volume of trading. While Respondents were engaged in their SouthImp-Exp and NCMPAImp-Exp OCL Trades from June 19 to July 31 2010, Respondents engaged in 27 days of Other OCL Trades at a total volume of approximately 301,000 MWh across 15 paths or an average of approximately 11,200 MWh per trade day.⁴⁹⁸ By July 31, Respondents had ceased trading their SouthImp-Exp and NCMPAImp-Exp paths after the IMM expressed his concerns with Respondents' trading on both paths. From August 1 through September 2,

over several hours across the 11 days and we are persuaded that Respondents determined to abandon the path as a result. *See* Coaltrain and PJM Data. We conclude that each of these examples of abandoning a path is consistent with Respondents' desire to pursue profit on these paths through the sole or primary price signal of MLSA.

⁴⁹⁷ *See* Coaltrain and PJM Data.

⁴⁹⁸ *See id.*

2010, Respondents engaged in 20 days of Other OCL Trading at a total volume of approximately 448,000 MWh across 28 paths or an average of approximately 22,400 MWh per trade day.⁴⁹⁹ We are therefore persuaded that Respondents on average doubled their daily efforts on the Other OCL Trade paths during this later timeframe to compensate for the loss of the SouthImp-Exp and NCMPAImp-Exp paths which together had yielded approximately \$3.66 million in profits after accounting for MLSA payments.⁵⁰⁰ Moreover, we conclude that Respondents did so knowing the IMM's concerns about their MLSA-targeted trading on the SouthImp-Exp and NCMPAImp-Exp paths.

(2) **Pattern**

183. For the reasons set forth above with respect to the SouthImp-Exp and NCMPAImp-Exp OCL Trades, we similarly conclude here that the timing of Respondents' Other OCL Trades reflects their fraudulent nature.⁵⁰¹ As we noted above, Respondents' Spread Strategy trading—engaged in for years before the OCL Strategy trading—was financially successful⁵⁰² and appears to have promoted price convergence consistent with the UTC product's purpose.⁵⁰³ Respondents developed the OCL Strategy only after having reviewed PJM's June 1, 2010 *Report of Refund* and becoming aware of the size of the MLSA payments being awarded to market participants.⁵⁰⁴ This led to the placement of the first Other OCL Trade for trade day June 15, 2010.⁵⁰⁵ In addition, as we described, Respondents doubled their average trading of the Other OCL Trades after they ceased making their highly successful SouthImp-Exp and NCMPAImp-Exp OCL Trades.

184. The pattern of the Other OCL Trades similarly reflects their fraudulent nature: the pattern of Respondents' Spread and Other OCL Trades were qualitatively and

⁴⁹⁹ *See id.*

⁵⁰⁰ *See id.*

⁵⁰¹ *See supra* PP 107-114, 130-134, 158-162.

⁵⁰² *Supra* P 40.

⁵⁰³ *Supra* PP 130, 158.

⁵⁰⁴ *Supra* PP 41, 106.

⁵⁰⁵ *Supra* P 114.

intrinsically different.⁵⁰⁶ For example, unlike the Spread Trades where Respondents sought to avoid or reduce the costs associated with transmission and purchased transmission for only 18 percent (by volume) of these trades,⁵⁰⁷ Respondents voluntarily used paid transmission for 99 percent (by volume) of their Other OCL Trades,⁵⁰⁸ thereby substantially driving up the cost of the underlying trade. We conclude here, as we did with respect to Respondents' SouthImp-Exp and NCMPAImp-Exp OCL Trades, that this difference reflects the different nature of the Strategies: the Spread Trades attempted to maximize profit from the price spread whereas the OCL Trades were placed with the MLSA payments as the sole or primary price signal and eligibility for those MLSA payments required the use of paid transmission.⁵⁰⁹

185. In addition, the volume of the Spread Trades was lower than the Other OCL Trades. For example, Respondents engaged in 3,457 Other OCL Trades during the Manipulation Period, and the cleared volume associated with those transactions was 749,146 MWh or approximately 217 MWh per transaction, on average.⁵¹⁰ On the other hand, over that same timeframe, Respondents engaged in approximately 38,262 Spread Strategy transactions—over 11 times more than the Other OCL Trades—the cleared volume was approximately 2.1 million MWh—or about 55 MWh per transaction.⁵¹¹ Thus, while there were fewer Other OCL Trades by number, the average volume of each Other OCL Trade was over three times greater than the average volume of the Spread Strategy transactions. Again, the different patterns are consistent with the very different purposes of the trades: there was a price spread risk attached to the Spread Trades which risk Respondents sought to minimize when placing what they described as their “low-

⁵⁰⁶ *Supra* PP 37-40, 107.

⁵⁰⁷ *Supra* PP 40, 46, 131, 159; Coaltrain and PJM Data. The figures for the Other OCL Trades were calculated over the timeframe Respondents traded those paths: June 15-September 2, 2010. The figures for the Spread Trades were calculated for the timeframe Respondents engaged in their OCL Strategy trading overall: June 15-September 2, 2010. These are the timeframes used for all comparisons between the Spread and Other OCL Trades in this section of this order.

⁵⁰⁸ In approximately 1 percent of their OCL Trades, Respondents did not purchase enough transmission and thus did not receive MLSA.

⁵⁰⁹ *Supra* PP 131, 159.

⁵¹⁰ *See* Coaltrain and PJM Data.

⁵¹¹ *See id.*

risk” Other OCL Trades. For example, the average spread associated with the Spread Trades from June 15 through September 2, 2010 was \$0.82 per MWh.⁵¹² Thus, Respondents approached the riskier Spread Trades with lower volumes. In contrast, the Other OCL Trades were overwhelmingly dependent on MLSA for their profitability.⁵¹³ Respondents increased that profitability by increasing trade and paid transmission volume to increase MLSA payments.⁵¹⁴

186. The difference in the patterns between the two strategies is also observed in the average profit per MWh after transaction costs under each Strategy without consideration of MLSA payments. The Other OCL Trades on average earned negative \$0.30 per MWh on the spread (before the deduction of transaction costs) while the Spread Trades earned \$0.82 per MWh on the spread (before the deduction of transaction costs). After the deduction of transaction costs, the Other OCL Trades lost \$0.98 per MWh during the Manipulation Period while the Spread Trades gained \$0.62 per MWh.⁵¹⁵ This is consistent with the different purpose of each strategy: having as its sole or primary price signal the MLSA, the OCL Strategy was not focused on profit from the underlying spread but instead from MLSA payments, whereas the Spread Strategy sought to profit from the underlying spread and was not focused on MLSA payments.

187. For the aforementioned reasons, we therefore conclude that the timing and pattern of the Other OCL Trades as compared to the Spread Strategy highlight the fraudulent nature of the Other OCL Trades.

(3) **The Other OCL Trades were uneconomic and contrary to the PJM UTC market design purpose**

188. We base our finding that the Other OCL Trades were fraudulent on Respondents’ purpose for placing such trades, but our decision is consistent with the uneconomic nature of the trades. Respondents’ Other OCL Trades lost over \$221,000 on the spread and paid over \$512,000 in transaction costs for a loss of over \$733,000 on the underlying trade. However, by garnering MLSA payments through the use of paid transmission,

⁵¹² *See id.*

⁵¹³ *See id.*

⁵¹⁴ *See id.*

⁵¹⁵ *See id.*

Respondents' Other OCL Trades generated a net profit of approximately \$452,000.⁵¹⁶ As we held with respect to Respondents' SouthImp-Exp and NCMPAImp-Exp OCL Trades, we find Respondents' Other OCL Trades were uneconomic and contrary to the market design purposes for which PJM offered the UTC product.⁵¹⁷ Specifically, we find that not only were Respondents' Other OCL Trades routinely unprofitable when measured from a price arbitrage perspective,⁵¹⁸ but this was expected.⁵¹⁹

189. Respondents' strategy is improper and fraudulent given the evidence presented. We find that Respondents' Other OCL Trades did not have as "their sole or primary price signal the price risk of the underlying UTC spread" and that they were not "placed with the purpose of profiting based on the direction of the spread."⁵²⁰ Further, like the traders in *City Power*, and like Respondents' own trading on SouthImp-Exp and NCMPAImp-Exp, even though Respondents were not required to purchase transmission under the PJM tariff to place these trades, they did so in order to be eligible for MLSA.⁵²¹ By doing so, however, Respondents greatly increased their transaction costs. Had they wanted to increase the likelihood of earning profits from the spread, they would have placed qualifying trades using free transmission, foregoing the MLSA payments but greatly reducing the costs of their trading. Instead they chose to pay for transmission services. Accordingly, we find Respondents followed a trading strategy to further a scheme to collect MLSA payments and that obtaining these payments was the motivating force behind their Other OCL Trades.

⁵¹⁶ *See id.*

⁵¹⁷ *See supra* PP 135-142, 163-166; *See also City Power*, 152 FERC ¶ 61,012 at PP 100-104, 137-139,157-159; *Chen*, 151 FERC ¶ 61,179 at PP 76-77.

⁵¹⁸ The price spread on the Other OCL Trades averaged a negative \$0.30 per MWh in the 675 hours in which Respondents engaged in the Other OCL Trades. While individual hours experienced profits on the spread after transaction costs were deducted, in the majority of the hours, the price spread lost money even before transaction costs were deducted. *See Coaltrain and PJM Data.*

⁵¹⁹ *See supra* PP 176-179.

⁵²⁰ *City Power*, 152 FERC ¶ 61,012 at P 158 (citing *Chen*, 151 FERC ¶ 61,179 at P 80).

⁵²¹ *City Power*, 152 FERC ¶ 61,012 at P 159.

190. As we have previously held, uneconomic trading such as Respondents provides an “inducium to be considered among the overall facts that the Commission examines when considering a potential violation of its Anti-Manipulation Rule, but standing alone it is neither necessary nor dispositive.”⁵²² Here, we find that the uneconomic results of Respondents’ Other OCL Trades resulting from the spread product (not the MLSA payment) support our conclusion that a course of business and a scheme to defraud existed.⁵²³

191. In sum, we conclude from the evidence here that Respondents’ Other OCL Trades were neither consistent with how the product historically traded nor aligned with the arbitrage purpose of those trades. We also conclude from the evidence that the Other OCL Trades had as their sole or primary price signal the MLSA. And, we find Respondents’ trading therefore is fraudulent.⁵²⁴

(4) **The Other OCL Trades were inconsistent with supply and demand**

192. We agree with OE Staff’s position that the Other OCL Trades were inconsistent with fundamentals of supply and demand.⁵²⁵ As we set forth above, the Other OCL Trades experienced an average spread of negative \$0.30 per MWh during the Manipulation Period. Adding to the average negative spread the fact that the average transaction costs were \$0.89 per MWh demonstrates just how little opportunity for profit existed on these paths without the MLSA: indeed the Other OCL Trades’ price spreads only experienced a positive profit after transaction costs in 57 of 675 hours in which Other OCL Trades were placed.⁵²⁶ We conclude there was no rational reason to expect

⁵²² *Chen*, 151 FERC ¶ 61,179 at P 77 (citations and internal quotations omitted). *See also City Power*, 152 FERC ¶ 61,012 at P 101; *supra* PP 139, 165.

⁵²³ For the same reasons set forth above, we again reject: (i) Respondents’ reliance on prior Commission orders to claim that any profit-driven actions in response to pricing incentives are not fraudulent; and (ii) Respondents’ arguments that they “pursued trades that [they] believed offered an opportunity for price arbitrage, and simply accounted for MLSA, among all other costs and credits in a comprehensive analysis of those transactions.” *See supra* P 140.

⁵²⁴ *See Chen*, 151 FERC ¶ 61,179 at P 80; *City Power*, 152 FERC ¶ 61,012 at PP 103, 139, 158-159.

⁵²⁵ Staff Report at 88.

⁵²⁶ *See* Coaltrain and PJM Data.

the Other OCL Trades to profit from a price arbitrage perspective. These trades were inconsistent with supply and demand fundamentals.

(5) **Respondents' Other OCL Trades were deceptive**

193. Respondents argue that their Other OCL Trades were not deceptive and therefore not fraudulent.⁵²⁷ We disagree.⁵²⁸ Respondents' fraudulent trades were undertaken with MLSA as the sole or primary price signal, not price spread arbitrage, which could result in a benefit to the market. However, Respondents placed their trades to conceal their nature and purpose and interfered with the functioning of the PJM market. The nature and purpose of the trades—obtaining MLSA payments—was concealed and created the illusion of arbitrage trading between these points thereby subverting the PJM market.⁵²⁹ Specifically, as a result of Respondents' deception, PJM distributed less in MLSA funds to those market participants who were engaged in behavior supportive of and beneficial to the PJM market and instead provided those MLSA funds to Respondents. We find that Respondents defrauded PJM into allocating MLSA payments to Respondents by engaging in high volumes of Other OCL Trades solely or primarily to collect MLSA payments, despite the average uneconomic price spread on the paths.⁵³⁰

(e) **Respondents had notice that their OCL Trades were fraudulent**

194. We reject Respondents' claim that the Commission failed to provide fair notice that Respondents' trading strategy would be impermissible—and a violation of FPA section 222 and the Commission's Anti-Manipulation Rule—because the Commission had not previously proscribed such conduct.⁵³¹ We addressed similar arguments *Chen*

⁵²⁷ See Answer of Coaltrain and Individual Respondents at 2, 18-19.

⁵²⁸ See *City Power*, 152 FERC ¶ 61,012 at PP 140-141.

⁵²⁹ Indeed, the combination trades increased this subterfuge by placing two trades in the market to develop access to a single path in order to be eligible for MLSA.

⁵³⁰ See *City Power*, 152 FERC ¶ 61,012 at PP 115, 141, 160; *Chen*, 151 FERC ¶ 61,179 at P 95.

⁵³¹ Answer of Coaltrain and Individual Respondents at 23.

and *City Power* and we reiterate those findings here.⁵³² “Respondents were on notice that placing uneconomic trades solely for the purpose of collecting MLSA payments violated the FPA and the Anti-Manipulation Rule.”⁵³³ In fact, Respondents affirmatively demonstrate they not only had notice but they understood their OCL Strategy was fraudulent, evidenced by a statement made in a Commission filing.⁵³⁴

195. We again find—as we did in *Chen* and *City Power*— that Respondents improperly seek to use the fair notice doctrine as a shield to permit the very behavior that Congress sought to prohibit.⁵³⁵ Broadly written, FPA section 222 explicitly directed the Commission to adopt regulations in furtherance of the public interest and for the protection of electric ratepayers.⁵³⁶ The Commission’s implementing regulation, its Anti-Manipulation Rule, is written similarly broadly to encompass the full and wide variety of fraudulent activity that can occur.⁵³⁷

⁵³² *Chen*, 151 FERC ¶ 61,179 at PP 115-123; *City Power*, 152 FERC ¶ 61,012 at PP 163-170. We reject Respondents’ argument that finding their “low-risk” trading manipulative effectively changes our definition of market manipulation. Answer of Coaltrain and Individual Respondents at 22-24. FPA section 222 and our Anti-Manipulation Rule are written in a manner to address the full and wide variety of fraudulent activity that can occur and we find Respondents’ OCL Strategy to be in violation of that Rule. *See infra* P 195. Furthermore, Respondents’ own statements demonstrate the untenable nature of their argument: as we describe in detail below, Respondents understood their behavior was improper before they even engaged in the trades at issue. *See infra* P 199; Financial Marketers, Request for Rehearing, Docket No. EL10-40-001, at 20 n.23 (filed June 9, 2010). Therefore, because the Anti-Manipulation Rule covers Respondents’ conduct, we reject Respondents’ arguments that any action by the Commission here represents retroactive ratemaking and that we provided no notice of a retroactive change.

⁵³³ *City Power*, 152 FERC ¶ 61,012 at P 163.

⁵³⁴ Financial Marketers, Request for Rehearing, Docket No. EL10-40-001, at 20 n.23 (filed June 9, 2010); *see infra* P 199.

⁵³⁵ *Chen*, 151 FERC ¶ 61,179 at P 116; *City Power*, 152 FERC ¶ 61,012 at P 163.

⁵³⁶ *See* 16 U.S.C. § 824v(a) (2012); *see also Chen*, 151 FERC ¶ 61,179 at P 116; *City Power*, 152 FERC ¶ 61,012 at P 163.

⁵³⁷ *See* 18 C.F.R. § 1c.2 (2015); *see also City Power*, 152 FERC ¶ 61,012 at P 163 (citing *Chen*, 151 FERC ¶ 61,179 at P 116 n.283).

196. Although courts articulate fair notice in slightly different ways, they consistently consider whether a “reasonably prudent person, familiar with the conditions that the regulations are meant to address and the objectives the regulations are meant to achieve, [has] fair warning of what the regulations require.”⁵³⁸ For an agency to fail to provide sufficient notice, the regulation must be so ambiguous that it cannot be interpreted correctly and the agency must have failed to provide guidance before imposition of the penalty.⁵³⁹ In a recent ruling considering this issue under FPA section 222 and the Anti-Manipulation Rule, a federal district court also noted that any “void for vagueness” doctrine is more limited in scope and application under these regulations: (i) by the presence of a scienter requirement in section 222 and the Anti-Manipulation Rule; and (ii) because the law at issue deals with economic regulation of sophisticated parties.⁵⁴⁰

197. As stated in *Chen* and *City Power*,⁵⁴¹ Commission precedent invalidates any claim of ambiguity concerning the scope of our Anti-Manipulation Rule. When the Commission adopted the Anti-Manipulation Rule, it defined fraud generally, that is, to include “any action, transaction, or conspiracy for the purpose of impairing, obstructing or defeating a well-functioning market.”⁵⁴² The Commission specifically addressed and

⁵³⁸ *Freeman United Coal Mining Co. v. Fed. Mine Safety & Health Review Comm’n*, 108 F.3d 358, 362 (D.C. Cir. 1997) (*Freeman*); see also *Rock of Ages Corp. v. Sec’y of Labor*, 170 F.3d 148, 156 (2d Cir. 1999) (citing *Freeman*); *Moussa I. Kourouma*, 135 FERC ¶ 61,245, at P 34 (2011) (*Kourouma*) (citing *Freeman*); *Chen*, 151 FERC ¶ 61,179 at P 116; *City Power*, 152 FERC ¶ 61,012 at P 165.

⁵³⁹ *United States v. Lachman*, 387 F.3d 42, 57 (1st Cir. 2004); see also *PMD Produce Brokerage Corp. v. USDA*, 234 F.3d 48, 53 (D.C. Cir. 2000); *Chen*, 151 FERC ¶ 61,179 at P 116; *City Power*, 152 FERC ¶ 61,012 at P 165.

⁵⁴⁰ *FERC v. Silkman*, Nos. 13-13054, 13-13056, 2016 WL 1430009, at *14 (D. Mass. April 11, 2016). The *Silkman* court further held that the two counterweights of scienter and sophistication are strengthened further where there is a process to obtain guidance before engaging in potentially unlawful conduct which thereby protects the unwary person. *Id.* Respondents could have availed themselves of guidance from the Commission, PJM, or the IMM. They did not.

⁵⁴¹ *Chen*, 151 FERC ¶ 61,179 at P 118; *City Power*, 152 FERC ¶ 61,012 at P 166.

⁵⁴² Order No. 670, FERC Stats. & Regs. ¶ 31,202 at P 50. See also *Silkman*, Nos. 13-13054, 13-13056, 2016 WL 1430009, at *17 (FPA Section 222 need not provide a precise delineation of “where the outer boundaries of prohibited conduct lay[],” instead finding that the party “knew or should have known that its conduct was prohibited.”).

rejected arguments that the regulation was vague or overbroad.⁵⁴³ No entity appealed that decision. To raise the issue now is to collaterally, and thus, impermissibly attack Order No. 670, which the Commission will not entertain.

198. Respondents argue that their OCL Trades were compliant with the PJM tariff.⁵⁴⁴ However, Respondents cite to no tariff provision in support of their argument. We are left to assume they argue that their trades were not expressly prohibited by the PJM tariff.⁵⁴⁵ This argument ignores the meaning and purpose of the Anti-Manipulation Rule and Commission precedent. The Commission has explained that tariffs cannot be written to prohibit all possible fraudulent behavior⁵⁴⁶ as “[t]he methods and techniques of manipulation are limited only by the ingenuity of man.”⁵⁴⁷ Accordingly, we have repeatedly held:

An entity need not violate a tariff, rule or regulation to commit fraud. Nor does a finding of fraud require advance notice specifically prohibiting the conduct concerned. Fraud is a matter of fact and requires evaluation of all the facts and circumstances of each case. The Commission need not imagine and specifically proscribe in advance every example of fraudulent behavior.⁵⁴⁸

⁵⁴³ Order No. 670, FERC Stats. & Regs. ¶ 31,202 at PP 30-32; *see also* 17 C.F.R. § 240.10b-5 (2015).

⁵⁴⁴ Answer of Coaltrain and Individual Respondents at 23.

⁵⁴⁵ To the extent Respondents attempt to rely on the provision permitting UTC transactions associated with transmission service in PJM to receive a portion of MLSA payment, their reliance is misplaced. As we discuss, Respondents’ actions were not explicitly contemplated by PJM’s rules and the Commission did not approve placing uneconomic UTC trades solely for the purpose of collecting MLSA payments in the *Black Oak* proceedings. *See infra* P 200.

⁵⁴⁶ *See, e.g., Investigation of Terms and Conditions of Public Utility Market-Based Rate Authorizations*, 114 FERC ¶ 61,165, at P 24 (2006).

⁵⁴⁷ *Cargill, Inc. v. Hardin*, 452 F.2d 1154, 1163 (8th Cir. 1971).

⁵⁴⁸ *Competitive Energy Services, LLC*, 144 FERC ¶ 61,163, at P 50 (2013) (*CES*) (citations omitted); *Silkman*, 144 FERC ¶ 61,164 at P 50; *Lincoln Paper & Tissue, LLC*,

199. Moreover, Respondents had notice that the OCL Strategy is manipulative and inappropriate in Commission-jurisdictional markets. The Commission has explained that, under the Anti-Manipulation Rule, fraud includes, but is not limited to, “any action, transaction, or conspiracy for the purpose of impairing, obstructing, or defeating a well-functioning market.” That Respondents understood their trading was manipulative and fraudulent is demonstrated by Coaltrain’s affirmative statement to the Commission that trades not selected for their potential to profit from the spread result from “perverse incentives.” Specifically, Coaltrain and three other parties together filed a Request for Rehearing which stated:

There is no merit to any claim that updating the allocation percentage will give market participants perverse incentives to engage in virtual transactions in order to capture a larger share of the surplus. As always, market participants will conduct virtual transactions when they think they can profit from the difference between the day-ahead LMP and the real-time LMP they expect. The fact that a trader will share in distributions of transmission line loss surpluses based on the volume of transactions it conducts in the day-ahead market should not significantly alter this calculus, given that transmission line losses are just one component of the LMP.⁵⁴⁹

We are not persuaded by Respondents’ argument that their statement is inapplicable to these UTC transactions because it: (i) addresses a potential MLSA allocation methodology related to virtual trading; and (ii) comes after UTCs had already been permitted to participate in MLSA allocations.⁵⁵⁰ Neither argument is on point. Coaltrain’s statement demonstrates Respondents recognized products like virtual and UTC trades are to be placed to arbitrage price spreads and “will have as their sole or primary price signal the price risk of the underlying ... spread and will be placed with the

144 FERC ¶ 61,162, at P 36 (2013) (*Lincoln*). See also *In re Make Whole Payments and Related Bidding Strategies*, 144 FERC ¶ 61,068, at P 83 (2013) (citations omitted).

⁵⁴⁹ Financial Marketers, Request for Rehearing, Docket No. EL10-40-001, at 20 n.23 (filed June 9, 2010).

⁵⁵⁰ See Answer of Coaltrain and Individual Respondents at XX.

purpose of profiting based on the direction of the spread.”⁵⁵¹ Respondents’ OCL Trades did no such thing. That Respondents understood their OCL Strategy to be improper is made “manifest” by Coaltrain’s statement, which demonstrates that Respondents were not “unwary” but informed that their conduct was unlawful.⁵⁵²

200. We reiterate our conclusions in *Chen* and *City Power*⁵⁵³ and we also reject Respondents’ suggestion that our *Black Oak* orders can be read to authorize Respondents’ fraudulent OCL Trades and that their trades somehow fall within the safe harbor provisions provided by Order No. 670.⁵⁵⁴ For the “safe harbor” to be invoked, the action must have been “explicitly contemplated in Commission-approved rules or regulations . . .”⁵⁵⁵ We find that Respondents’ actions were not explicitly contemplated by PJM’s rules and that the Commission did not approve placing uneconomic UTC trades solely for the purpose of collecting MLSA payments in the *Black Oak* proceedings and therefore Respondents misinterpret and attempt to misapply the “safe harbor” provision. The *Black Oak* decisions’ holdings focused only on the merits of an MLSA distribution mechanism, and not on how market participants trade UTCs or the ways in which a market participant might manipulate that mechanism. The Commission’s passing mention of the issue in response to third-party comments was not an affirmation of the conduct.⁵⁵⁶ Because the Commission’s *Black Oak* orders did not explicitly contemplate trading UTCs for the sole or primary purpose of capturing MLSA revenues, Respondents cannot have reasonably concluded that their trades would not be subject to Commission scrutiny. When it is unclear whether conduct would be legal, the risk associated with pursuing that conduct falls on the market participant.⁵⁵⁷ Moreover, to the extent

⁵⁵¹ *Chen*, 151 FERC ¶ 61,179 at P 80; *City Power*, 152 FERC ¶ 61,012 PP 103, 139, 158.

⁵⁵² See *Silkman*, Nos. 13-13054, 13-13056, 2016 WL 1430009, at **16-17; see also *id.* at *17 (the party “knew or should have known that its conduct was proscribed”).

⁵⁵³ *Chen*, 151 FERC ¶ 61,179 at P 122; *City Power*, 152 FERC ¶ 61,012 at P 168.

⁵⁵⁴ Answer of Coaltrain and Individual Respondents at 23-24.

⁵⁵⁵ Order No. 670, FERC Stats. & Regs. ¶ 31,202 at P 67.

⁵⁵⁶ See *Black Oak Energy, L.L.C. v. PJM Interconnection, L.L.C.*, 125 FERC ¶ 61,042, at PP 38, 43 (2008).

⁵⁵⁷ See *Chen*, 151 FERC ¶ 61,179 at P 122 (citing *Precious Metals Associates, Inc. v. CFTC*, 620 F.2d 900, 909 (1st Cir. 1980)); *City Power*, 152 FERC ¶ 61,012 at P 168.

Respondents' arguments suggest that they relied on the *Black Oak* decisions as affirmation that their trades were allowed, no one has brought to our attention contemporaneous evidence that Respondents relied on the *Black Oak* decisions when they designed and implemented their OCL Strategy and instead Respondents filed a statement with the Commission demonstrating the contrary.⁵⁵⁸

201. Messrs. Peter and Robert Jones and Mr. Wells argue that they cannot have had fair notice their OCL Trades were manipulative if the PJM IMM had no such notice. They allege that the IMM had no notice because when the IMM spoke with Respondents about their SouthImp-Exp OCL Trades to the exclusion of the other OCL Trades, they claim the IMM was not concerned with "other trading paths where a profit opportunity additive to the MLSA payment was possible."⁵⁵⁹ This argument is contrary to evidence and unavailing. First, as we have established, Respondents had notice of the fraudulent nature of their trades and their June 2010 filing with the Commission is evidence thereof. Next, we find the allegation that the IMM did not immediately identify non-SouthImp-Exp OCL Trade paths is related not to a lack of notice but rather to the deceptive nature in which Respondents placed their trades: the nature and purpose of the trades—obtaining MLSA payments—was concealed and created the illusion of arbitraging between points.⁵⁶⁰ Finally, Respondents acknowledge that the IMM did address their NCMPImp-Exp OCL Trades, which Respondents allege are trades with additive profit potential to the MLSA.⁵⁶¹ The Commission therefore finds that Respondents' discussions with the IMM have no bearing on whether Respondents received fair notice.

(f) **Respondents' arguments concerning risk, price spread volatility, and MLSA volatility are flawed**

202. We reject Respondents' contention that central to OE Staff's claim of manipulation is an allegation that the OCL Trades are risk-free. Respondents incorrectly argue that trades possessing some level of risk cannot violate the FPA and the Anti-Manipulation Rule and they argue that the OCL Trades were subject to three types of

⁵⁵⁸ Financial Marketers, Request for Rehearing, Docket No. EL10-40-001, at 20 n.23 (filed June 9, 2010).

⁵⁵⁹ Answer of P. Jones, R. Jones, and Wells at 18-21.

⁵⁶⁰ See *supra* PP 144, 168, 193. See also *Chen*, 151 FERC ¶ 61,179 at PP 72, 95; *City Power*, 152 FERC ¶ 61,012 at PP 115, 141.

⁵⁶¹ See, e.g., Answer of Coaltrain and Individual Respondents at 61.

risk: (i) risk from the transaction; (ii) risk from price spread volatility; and (iii) risk from MLSA volatility.⁵⁶²

203. Respondents offer several arguments to support the proposition that their OCL Trades possessed risk. For example, Respondents assert “[t]he fact that Coaltrain considered the trades at issue to carry risk is confirmed by the fact that Coaltrain executed other trades to hedge such risk.”⁵⁶³ Similar to the hedging argument, Respondents argue their consideration of market fundamentals such as constraints substantiates their perception that the trades “carr[ied] risk.”⁵⁶⁴ They offer, for example, entries in the Daily Blotter related to market fundamentals and constraints and a statement by Mr. Robert Jones in testimony related to OCL hedges in support of this assertion.⁵⁶⁵ As we set forth below, this risk argument is inapposite.⁵⁶⁶ Moreover, hedging related to the OCL Trades is not inconsistent with the scheme: in order to garner MLSA, Respondents sought to minimize the price spread risk and they might have sought to accomplish this through hedging. For the same reason, we also reject Respondents’ suggestion that any examination of market fundamentals or constraints demonstrates that Respondents did not execute their trades “solely to attempt to capture MLSA.”⁵⁶⁷ Again, we find that this is not inconsistent with the desire to minimize the price spread risk to protect the level of MLSA payments.

204. We find Respondents’ risk arguments to be inherently flawed. The quantum of risk alone is not what makes a trade manipulative nor does the fact that a trade possesses risk provide an affirmative defense to manipulation. Risk is a factor we consider in this matter—along with many other factors—in determining whether or not there was a violation of the FPA and the Anti-Manipulation Rule. In a matter involving facts such as these, risk is an indicium of fraud or manipulation.⁵⁶⁸ Our conclusion in this matter that

⁵⁶² See, e.g., *id.* at 5, 27-32.

⁵⁶³ *Id.* at 32.

⁵⁶⁴ *Id.* at 37-45.

⁵⁶⁵ *Id.* at 32-33.

⁵⁶⁶ See *infra* PP 204-205.

⁵⁶⁷ Answer of Coaltrain and Individual Respondents at 37.

⁵⁶⁸ See *Chen*, 151 FERC ¶ 61,179 at P 6; *City Power*, 152 FERC ¶ 61,012 at PP 7,

Respondents engaged in a manipulative scheme does not require a finding that each transaction is devoid of risk. Rather our conclusion is based on the circumstances of this case, including that Respondents sought “low-risk” (zero or near-zero spread) trades in order to target MLSA payments.

205. In short, Respondents’ arguments that their trading was exposed to risk ignore the structure of the scheme alleged by OE Staff. OE Staff does not allege that Respondents’ OCL Trades were “risk-free” nor does the Commission make that finding here. Instead, OE Staff alleges and the Commission concludes that Respondents’ manipulative scheme had as its sole or primary price signal MLSA rather than the price risk of the underlying UTC spread.⁵⁶⁹ Pursuant to their scheme, Respondents identified paths that were designed to avoid as much substantive price spread risk as possible and Respondents focused instead on garnering and maintaining MLSA profits.⁵⁷⁰

206. Although we reject Respondents’ risk arguments, we nonetheless address price spread arguments raised by Respondents and their expert, Dr. Lesser. Specifically, we find to be flawed their expert’s arguments that: (i) focusing on average price spreads rather than price spread volatility is an “analytical error;” (ii) the price spreads on the paths at issue here were volatile; and (iii) the volatility of the price spread demonstrates that Respondents’ trading sought to pursue price arbitrage opportunities.⁵⁷¹

207. First, if focusing on the average price spread is an “analytical error,” “incomplete,” “flawed,” and contrary to “hornbook economics”⁵⁷² as Respondents contend, it is of no consequence to a finding concerning what Respondents intended, knew, did, and expected by engaging in their OCL Strategy because the Record indicates

⁵⁶⁹ See, e.g., *supra* PP 138, 166, 179, 186, 191, 193.

⁵⁷⁰ We also reject the notion that a finding of manipulation in this instance is “novel.” Answer of Coaltrain and Individual Respondents at 5, 20, 24. The Commission has found similar schemes in *City Power* and *Chen* to be fraudulent and manipulative. Indeed, Respondents traded on some of the same paths, over some of the same trading days, and pursued the same scheme (trading with MLSA as the sole or primary price signal) as the Commission found to be fraudulent and manipulative in *City Power*.

⁵⁷¹ See, e.g., Answer of Coaltrain and Individual Respondents at 27-30; Lesser Report at PP 174-222.

⁵⁷² See, e.g., Answer of Coaltrain and Individual Respondents at 27-28, *see also* Lesser Report at PP 11, 20, 31, 80-101.

Respondents themselves considered average spread when analyzing, selecting, and monitoring their OCL Trades.⁵⁷³

208. Second, Respondents' assertion that OCL Strategy price spreads were "volatile" is contrary to testimony and the repeated statements in Respondents' Answers that they sought "low-risk" trades.⁵⁷⁴ We are persuaded that this inconsistency results from an attempted *post hoc* defense that is unsubstantiated by Respondents' trading.⁵⁷⁵ The allegation by Respondents and their expert that one particular path or the other was "volatile" cannot overcome the evidence of how Respondents' themselves selected, analyzed, and traded these paths or the data demonstrating that the overall profitability of these trades derived from MLSA, not the price spread. We therefore find the argument to be contrary to the evidence in this matter.

209. In addition, we are persuaded that various of Respondents' expert's volatility analyses produce biased results due to the criteria selected and applied to the analyses. For example, in various graphs and analyses Respondents: (i) fail to consider that approximately 97 percent of Respondents' OCL Trades occurred in hours ending 10-22 and thus improperly included hours ending 1-9 and 23-24;⁵⁷⁶ (ii) fail to consider positive

⁵⁷³ See, e.g., Wells Test. Exs. 48, 49, 51, 61, 69, 87, 89; R. Jones Test. Exs. CT-RJ 14, 111, 118, 126; Miller Test. Ex. CTJM 32; Hughes Test. Exs. CT-44, 46, 47, 48

⁵⁷⁴ See, e.g., Answer of Coaltrain and Individual Respondents at 3, 14, 37, 47, 51, 61; Answer of P. Jones, R. Jones, and Wells at 32.

⁵⁷⁵ Finally, because we find Respondents considered average spreads and not volatility when implementing their OCL Strategy, any argument that volatility demonstrates an attempt by Respondents to pursue price arbitrage opportunities similarly cannot survive. Answer of Coaltrain and Individual Respondents at 27. Our conclusion is in keeping with the trade data and other evidence in this matter that affirmatively demonstrates the OCL Trades were not placed to arbitrage the price spread.

⁵⁷⁶ Lesser Report at PP 159-173, 187-191, 203, 208-211. By way of example, Respondents and their expert conclude that because of volatility on SouthImp-Exp, net profitability would have been negative 44 percent of the time around the clock from June 1 to September 1, 2010 after deducting average transaction costs of \$0.89 per MWh and adding MLSA payments. See, e.g., Answer of Coaltrain and Individual Respondents at 28; Lesser Report at P 187. However, using the same analysis on SouthImp-Exp over the same days only for hours 10-22 demonstrates negative net profitability 8.8 percent of the time. See Record at 04.5-DR4-Simulated Loss Credit Rate by type Aug2008-Sept16-2010.xls; PJM Data Miner LMP Data. If we analyze Respondents' actual trading days,

(continued...)

or negative “directionality” of the spreads or deviations from the mean of MLSA payments;⁵⁷⁷ (iii) rely on co-efficient of variation analyses where spreads were zero or near-zero on average;⁵⁷⁸ (iv) rely on simple counts of numbers without accounting for

negative net profitability drops further to 5.6 percent of the time. *See* Coaltrain and PJM Data. Similarly, Respondents and their expert conclude that because of volatility on NCMPImp-Exp, net profitability would have been negative 45 percent of the time around the clock from June 1 to September 1, 2010 after deducting average transaction costs of \$0.89 per MWh and adding MLSA payments. *See, e.g.*, Answer of Coaltrain and Individual Respondents at 29; Lesser Report at P 203. However, using the same analysis on NCMPImp-Exp over the same days only for hours 10-22 demonstrates negative net profitability 14 percent of the time. *See* Record at 04.5-DR4-Simulated Loss Credit Rate by type Aug2008-Sept16-2010.xls; PJM Data Miner LMP Data. If we analyze Respondents’ actual trading days, negative net profitability drops further to 6 percent of the time. *See* Coaltrain and PJM Data. We are persuaded that an analysis of hours 10-22 provides a more representative view of Respondents’ trading behavior and looking at those hours on the days they traded provides their actual experience.

⁵⁷⁷ Lesser Report at P 188. We note too that this is contrary to Dr. Lesser’s statement that “economically rational traders, would have considered the potential gains, losses and risk of UTCs, weighing the potential benefits against the costs and risk.” Lesser Report at P 113 (emphasis added). We conclude that a trader trading for arbitrage purposes would consider the directionality of the spread on that path as this impacts potential profit.

⁵⁷⁸ Lesser Report at PP 161 (Table 2), 164 (Table 3), 189 (Table 4), 191, 203 (Table 5), 210 (Table 6), 219 (Table 8). There is no evidence to suggest that Respondents relied on a coefficient of variation analysis when performing their trades. Moreover, as we note below, analyses of SouthImp-Exp and NCMPImp-Exp suggest zero or negative spreads, on average, when similar months and directionality are considered. *See infra* note 580. We conclude that application of the coefficient of variation to a variable (in this case the spread) whose mean equals zero cannot be accomplished and its application to a variable whose mean is close to zero (positive or negative) will result in a meaningless result. Institute for Digital Research and Education, UCLA, *FAQ: What is the coefficient of variation?* http://www.ats.ucla.edu/stat/mult_pkg/faq/general/coefficient_of_variation.htm; *see also* Charles E. Brown, *In Applied Multivariate Statistics in Geohydrology and Related Sciences*, 155-157 (Springer Berlin Heidelberg GmbH & Co., eds. 1998) (chapter titled *Coefficient of Variation*) (“Variates with a mean less than unity [*i.e.* below one] will also provide spurious results and the coefficient of variation will be very large and often meaningless.”).

appropriate variables (for example, magnitude and directionality);⁵⁷⁹ (v) fail to consider price spread history in similar months;⁵⁸⁰ and (vi) fail to account for the strongly positive distribution of MLSA payments and net profit.⁵⁸¹ The result of selecting and applying criteria in this manner produces results that are misleading.

210. Third, we reject Respondents' and their expert's arguments that MLSA payments were volatile and therefore unpredictable.⁵⁸² We similarly conclude here, as we did with respect to the price spread volatility arguments, that the deficiencies in the analyses and arguments here are *post hoc* explanations that are unsubstantiated by evidence related to Respondents' trading. While they argue that MLSA payments cannot have been

⁵⁷⁹ Lesser Report at PP 161 (Table 2)-162, 164 (Table 3)-165, 187-189 (Table 4), 203 (Table 5), 210 (Table 6)-211.

⁵⁸⁰ Lesser Report at PP 174-212. Dr. Lesser's analysis of price spread volatility uses January 1, 2010 through September 1, 2010 throughout his report. By way of example, by using the similar months timeframe including June through August 2008, June through August 2009 and June 2010 that the Commission analyzed with respect to Respondents' trading on the SouthImp-Exp path, the spread on that path was zero or negative in 99.8 percent of all hours, with 0.16 percent of all hours exhibiting values less than negative \$0.50 per MWh. *See supra* P 118. In only 0.18 percent of all hours did the path result in a positive spread and in 0.00 percent of all hours did the positive spread exceed the \$0.89 per MWh average transaction costs. *See PJM Data Miner LMP Data*. By way of further example, for the timeframe including June through August 2009 and June 2010 that the Commission analyzed with respect to Respondents trading on the NCMPImp-Exp path, the spread on that path was zero or negative in 73 percent of all hours, with only 0.44 percent of all hours exhibiting values less than negative \$0.50 per MWh. *See supra* P 145. While the path resulted in a positive spread in 28 percent of the hours across these months, in only 6 percent of all hours was the spread greater than \$0.20 per MWh and in only 1.36 percent of all hours did the positive spread exceed the \$0.89 per MWh average transaction. *See PJM Data Miner LMP Data*.

⁵⁸¹ Lesser Report at PP 161-164, 168-170, 187-189, 201-203, 208-211. We have independently reviewed the data and agree with the calculations, graphs, and conclusions set forth by OE Staff examining the various volatility arguments raised by Respondents. Staff Reply at 21-39.

⁵⁸² Answer of Coaltrain and Individual Respondents at 30-31; Lesser Report at PP 159-173.

estimated and that OE Staff wrongly considers MLSA payment averages,⁵⁸³ the evidence demonstrates that Respondents themselves traded in historically high load months and hours and that they applied averages to estimate and predict MLSA payments.⁵⁸⁴ For example, the early development of the OCL Strategy was based on Mr. Hughes' analyses of: (i) the average MLSA payments by hour on May 1, 2010; and (ii) approximately \$343,000 in lost potential MLSA-based profits incurred as a result of Respondents' failure to use paid transmission.⁵⁸⁵ Moreover, the evidence demonstrates that Respondents were aware that MLSA payments increase as load increases and implemented their OCL Strategy consistent with this fact. For example, while executing their scheme, Respondents performed "like-day" analyses based on load calculations to predict MLSA payments and made trading recommendations as a result of those analyses.⁵⁸⁶ We similarly observe that Respondents pursued the OCL Trades during the historically high load months of June through September, 2010⁵⁸⁷ and that 97 percent of those trades by volume occurred in the historically highest load hours ending 10-22.⁵⁸⁸ Thus, we find Respondents' arguments related to the unpredictability of MLSA payments to be unsupported.

211. We also find Respondents' expert's MLSA volatility analyses faulty: Respondents make certain conclusions about MLSA without attempting to distinguish between hours of the day or high load months and thus fail to consider the skewed

⁵⁸³ Answer of Coaltrain and Individual Respondents at 30; Lesser Report at PP 160-161.

⁵⁸⁴ See Coaltrain and PJM Data; see also Hughes Test. Ex. CT-9.

⁵⁸⁵ Hughes Test. Exs. CT-9 (June 7, 2010 3:48:40 p.m.), CT-10 (June 7, 2010 3:52:19 p.m.).

⁵⁸⁶ See, e.g., Wells Test. Ex. 92 ("OCL play – *Looking at like days*, loss credits could be in the 1.7 – 1.8 range. Not too shabby. Recommend 300 MW, 9-23" (emphasis added)); *id.* Ex. 89 ("*Looking at like days for tomorrow* I get 6-21 which posted a 1.5 loss credit, definitely worth playing. Recommend 300MW, 9-23" (emphasis added)).

⁵⁸⁷ Respondents knew that the MLSA Payments were high in the summer months during the peak hours. COALTRAIN009468 (Loss Credit Analysis tab); see also COALTRAIN009466.

⁵⁸⁸ COALTRAIN003512-3519; COALTRAIN011540. We are persuaded that by selecting high load months or high load hours, Respondents would have positively impacted their MLSA payments.

distribution of MLSA payments.⁵⁸⁹ For example, Dr. Lesser concludes that OE Staff is wrong when they state that MLSA payments between 2008 and 2010 were almost always above the \$0.89 per MWh transaction cost. He concludes that “loss credit amounts were highly volatile, both from hour-to-hour and day-to-day.”⁵⁹⁰ In so doing, Respondents rely on observations of standard deviation, coefficient of variation, and a simple count of hours in which MLSA is below the average transaction cost of \$0.89 per MWh.⁵⁹¹ Each of these measures ignores directionality of the deviations from the mean and that the largest deviation from the mean is positive.⁵⁹² In addition, the simple count ignores the magnitude of the MLSA payment. Moreover, the analysis fails to consider an analysis of months and hours similar to the months and hours in which Respondents traded.

212. By way of example, by taking into consideration that Respondents chose to trade in the high load hours ending 10-22 and analyzing similar months to Respondents’ trading, the risk of MLSA dropping below the \$0.89 per MWh transaction costs changes significantly from the observations made by Dr. Lesser in his analysis:⁵⁹³

MLSA Payment Per MWh			
	August 1, 2008- September 16, 2010 HE1-24	August 1, 2008- September 16, 2010 HE10-22	August 2008, June-August 2009, and June-August 2010 HE10-22
Max	\$4.81	\$4.81	\$4.81
Min	-\$0.18	\$0.17	\$0.17
Average	\$1.02	\$1.23	\$1.42
Percent of Hours Loss Credit < 89 cents	47%	28%	19%
Standard Deviation	\$0.52	\$0.53	\$0.64
Coefficient of Variation	50%	43%	45%

Specifically, while Dr. Lesser’s analysis suggested that MLSA would drop below the \$0.89 per MWh transaction cost in 47 percent of the hours, by applying an historic analysis that takes into consideration the high load hours and months in which Respondents traded, this number drops to 19 percent. This analysis establishes that MLSA volatility was not as significant as Respondents’ analysis suggests. In addition,

⁵⁸⁹ See, e.g., Lesser Report at P 161 (Table 2).

⁵⁹⁰ See, e.g., *id.* P 161.

⁵⁹¹ *Id.* PP 161 (Table 2), 164 (Table 3).

⁵⁹² See Record at 04.5-DR4-Simulated Loss Credit Rate by Type Aug2008-Sept16-2010.xls.

⁵⁹³ Lesser Report at P 161 (Table 2).

the data demonstrates that Respondents took MLSA like-days and directionality into account when selecting the hours and paths on which they placed their trades and thereby successfully pursued MLSA payments.⁵⁹⁴

b. Scienter

213. Scienter is the second element of the Commission's Anti-Manipulation Rule.⁵⁹⁵ To establish scienter, Order No. 670 requires reckless, knowing, or intentional actions taken in conjunction with a fraudulent scheme, material misrepresentation, or material omission.⁵⁹⁶

i. Respondents' Answers

214. As a threshold issue, Respondents argue that OE Staff has not pointed to any documentary or testimonial evidence to prove scienter and, instead, OE Staff's allegations rest solely on its subjective view of Respondents' intent.⁵⁹⁷ Respondents assert that the Commission cannot approve a penalty without providing such evidentiary support.⁵⁹⁸ Further, they contend that, because scienter is disputed, the Commission cannot render a decision on the issue based solely on the written record.⁵⁹⁹

215. Respondents argue that because OE Staff lacks documentary or testimonial proof, it tries to stretch "to find evidence of scienter where none exists."⁶⁰⁰ Respondents contend that the evidence on which OE Staff relies merely shows that they simply

⁵⁹⁴ See Record at 04.5-DR4-Simulated Loss Credit Rate by Type Aug2008-Sept16-2010.xls.

⁵⁹⁵ Order No. 670, FERC Stats. & Regs. ¶ 31,202 at P 49. Scienter is not an element of a violation of 18 C.F.R. § 35.41(b) (2015). See *Kourouma v. FERC*, 723 F.3d 274, 278-79 (D.C. Cir. 2013).

⁵⁹⁶ Order No. 670, FERC Stats. & Regs. ¶ 31,202 at PP 52-53.

⁵⁹⁷ See Answer of Coaltrain and Individual Respondents at 83-84; see also Answer of P. Jones, R. Jones, and Wells at 21.

⁵⁹⁸ See Answer of Coaltrain and Individual Respondents at 83.

⁵⁹⁹ *Id.* (citing *Union Pac. Fuels, Inc. v. FERC*, 129 F.3d 157, 164 (D.C. Cir. 1997)).

⁶⁰⁰ *Id.* at 88.

considered MLSA as one factor in their pursuit of a legitimate and lawful strategy. They argue that price arbitrage was “at the core” of their trades and that MLSA was just one variable in the equation.⁶⁰¹

216. Respondents also take issue with the specific evidence OE Staff presents to demonstrate scienter. For example, in response to OE Staff’s argument that scienter is reflected in the fact that they tagged their trades as “OCL,” Respondents assert that this label “was merely to designate that the trade was *eligible* for MLSA credits.”⁶⁰² Respondents also argue that they did not try to cover up the purpose of their trades in communications with the IMM, as OE Staff contends, by claiming that they saw price deltas with their SouthImp-Exp OCL Trades.⁶⁰³ According to Respondents, they were straightforward and candid in their communications with the IMM.⁶⁰⁴ Further, Respondents argue that OE Staff mischaracterizes screenshots and testimony that show that Respondents were focused on market fundamentals, not just MLSA payments, when conducting their OCL Trades.⁶⁰⁵

ii. OE Staff Report and Reply

217. OE Staff argues that Respondents acted with scienter, as reflected in contemporaneous communications, trade data, testimony, and other evidence that shows they methodically developed and traded pursuant to the OCL Strategy and knew the strategy was wrongful.⁶⁰⁶

218. OE Staff points to contemporaneous statements by Respondents showing they placed their OCL Trades for the purpose of collecting MLSA payments. For example, OE Staff notes that Mr. Sheehan asked Mr. Robert Jones to “check southeast to cplexp

⁶⁰¹ See *id.* at 84, 89; Answer of P. Jones, R. Jones, and Wells at 20-21.

⁶⁰² Answer of Coaltrain and Individual Respondents at 37 (emphasis in original) (citations omitted); see also Answer of P. Jones, R. Jones, and Wells at 32; Answer of Sheehan, Miller, and Hughes at 4.

⁶⁰³ See Answer of Coaltrain and Individual Respondents at 52, 55-61.

⁶⁰⁴ *Id.* at 52, 55-61; Answer of P. Jones, R. Jones, and Wells at 11-12.

⁶⁰⁵ See Answer of Coaltrain and Individual Respondents at 40-51.

⁶⁰⁶ See generally Staff Report at 89-93.

for a loss play.”⁶⁰⁷ OE Staff asserts that Respondents focused on the size of the loss credits when proposing OCL Trades.⁶⁰⁸ OE Staff also asserts that Respondents’ intent is reflected in Respondents’ trade data because “they tagged their own trades as either ‘Spread’ or ‘OCL’ in the strategy line of Coaltrain’s software applications.”⁶⁰⁹ Moreover, OE Staff explains that Respondents analyzed “constraints” when trying to find profitable Spread Trades, but did not conduct the same constraint analysis for OCL Trades.⁶¹⁰ In response to Respondents’ contention that certain screenshots show they reviewed market fundamentals when making OCL Trades, OE Staff claims that some fundamentals-based research was necessary for Respondents to find profitable paths for the OCL Strategy.⁶¹¹

219. OE Staff also argues that Respondents’ scienter is reflected in evidence that they knew their OCL Strategy was wrongful and tried to conceal their conduct. For example, OE Staff asserts that, when questioned about their OCL Strategy, Messrs. Peter Jones and Sheehan created *post hoc* explanations for their behavior that did not reflect their stated intent at the time they executed the trades.⁶¹² OE Staff argues that Respondents’ statement to the IMM that they had observed price deltas on SouthImp-Exp was misleading “because it gave the impression . . . that they had first made the trades to capture those ‘price deltas’ when in fact the trades were aimed at MLSA.”⁶¹³ OE Staff also points to a June 9, 2010, Commission filing, in which Coaltrain (and several other market participants) “assured the Commission that MLSA would not create ‘perverse incentives’ for virtual traders ‘to engage in virtual transactions in order to capture a larger

⁶⁰⁷ *Id.* at 89 (citing P. Jones Test. Vol. II Exs. 11, 14).

⁶⁰⁸ *Id.* at 90 (citations omitted).

⁶⁰⁹ *Id.* at 90 (citations omitted). OE Staff refutes Respondents’ claim that this tagging mechanism was merely to designate that the trades were eligible for MLSA payments, noting that some of Respondents’ Spread Trades were also eligible for MLSA. Staff Reply at 49.

⁶¹⁰ Staff Report at 89-90.

⁶¹¹ Staff Reply at 9.

⁶¹² Staff Report at 91.

⁶¹³ Staff Reply at 72.

share of the surplus.”⁶¹⁴ Further, OE Staff highlights that Respondents tried to conceal substantial evidence during OE Staff’s investigation and argues that, under the law, “inferences of consciousness of guilt—and thus of guilt itself—can be drawn from evidence of lying or deception.”⁶¹⁵

220. In response to Respondents’ argument that the Commission cannot resolve questions of scienter if disputed, OE Staff maintains that the Commission has the authority and duty to resolve factual questions before it can lawfully impose penalties. OE Staff points out that Respondents elected to have the Commission address such issues in this show cause proceeding by choosing not to have this matter adjudicated in an administrative hearing.⁶¹⁶ OE Staff also argues that scienter does not require direct proof and, in any event, the record contains substantial direct and circumstantial proof that Respondents devised and executed a scheme to trade UTCs for the purpose of diverting MLSA payments from other market participants.⁶¹⁷

iii. Commission Determination

221. We conclude, based on the Record, including contemporaneous communications, trade data, and testimony, that Respondents acted with the requisite scienter in connection with their OCL Strategy trading scheme. As detailed below, this evidence shows that each Respondent individually, and in coordination with other Respondents, knowingly and intentionally participated in a manipulative scheme to trade UTCs for the sole or primary purpose of collecting MLSA.

(a) Respondents’ contemporaneous statements and actions confirm that their OCL Strategy was aimed solely or primarily at collecting MLSA payments

222. From the time Respondents received PJM’s *Report of Refund* in June 2010, they made numerous statements and took coordinated actions showing their intent to target trading on certain UTC paths solely or primarily for the purpose of collecting MLSA

⁶¹⁴ Staff Report at 91 (quoting Financial Marketers, Request for Rehearing, Docket No. EL10-40-001, at 20 n.23 (filed June 9, 2010)).

⁶¹⁵ *Id.* at 92 (citations omitted).

⁶¹⁶ Staff Reply at 54.

⁶¹⁷ *Id.* at 54.

payments. For example, on June 10, 2010, Messrs. Sheehan and Miller began strategizing about the best ways to profit from “OCLs,” including a discussion of: (i) how much money to pay for trades in order to “make money on . . . OCLs,” (ii) how transmission payments affected OCL Trades; (iii) which source and sinks would work to earn profits “purely [on] the ocl value,” and (iv) how the “ocl strategy alone would work better for days when there isn’t much congestion.”⁶¹⁸ This communication confirms that Respondents distinguished the purpose of their new OCL Strategy—i.e., “to make money on . . . OCLs” and capture “purely the ocl value”—from their existing Spread Strategy, which they viewed as “strictly an upto” and evaluated based on the “merits.”⁶¹⁹

223. The language Respondents used when developing software applications for its new OCL Strategy also reflects their intent to profit solely or primarily from MLSA. For example, in early to mid June 2010, Coaltrain tasked Mr. Hughes with developing software to implement its OCL Strategy, and he used language reflecting the intent of the company. On June 15, 2010, for instance, Mr. Hughes typed “create application to find deals for loss credits” in Pivotal Tracker, a web-based software tool used for task management.⁶²⁰ The evidence also shows that he used specific language in his computer applications’ programming code focused on loss credits, such as: “LossStrategy,” “LossFilter,” “LossSorter,” and “LossTester.”⁶²¹ Respondents argue that these naming conventions do not show a manipulative purpose, noting the applications were renamed and did not serve an MLSA-related sorting function.⁶²² We reject this argument and find that the use of these terms is evidence that Coaltrain was focused on loss credits when developing the applications.

224. Respondents’ statements and actions about the purpose of their OCL Strategy continued while they were executing it. For example, on June 17, 2010, Mr. Sheehan learned of the SouthImp-Exp path and recognized that the day-ahead spread on the path was “perfectly 0,” suggesting that he saw no price divergence at these points.⁶²³ The very

⁶¹⁸ Miller Spector 360 Chat IM (June 10, 2010 9:34 AM).

⁶¹⁹ *Id.*

⁶²⁰ COALTRAIN0012638, row 1951.

⁶²¹ *Id.* at rows 1216, 1227, 1229.

⁶²² *See* Answer of Sheehan, Miller, and Hughes at 9.

⁶²³ Hughes Test. Ex. CT-55 (June 17, 2010, IM Between Messrs. Hughes and Sheehan).

next day, on June 18, 2010, Coaltrain placed a trade on SouthImp-Exp and proceeded to trade it for 34 days.⁶²⁴ During the 34 days Coaltrain traded on the path, it never experienced any price divergence, demonstrating that its purpose was not to profit by arbitraging price differences. Mr. Sheehan argues that his “perfectly 0” response merely reflects that he was surprised by this information.⁶²⁵ However, in context, his statement shows intent because, although he knew there was no spread on the path, Coaltrain nonetheless chose to trade it the very next day, continuing for 34 days without ever experiencing a spread.⁶²⁶

225. Similarly, on July 2, 2010, Mr. Robert Jones proposed conducting a “meg tester for a high load/high loss credit day” on NCMPAImp-Exp,⁶²⁷ suggesting a test to confirm the trade would yield high loss credits. Mr. Miller responded, “Ok,” and Mr. Peter Jones responded, “good with this.”⁶²⁸ Coaltrain went on to trade the NCMPAImp-Exp path for 17 days starting on July 8, 2010.⁶²⁹ In yet another example, on August 12, 2010, Mr. Wells recommended a trade to Mr. Peter Jones, explaining, “it goes up and down but it averages out never losing a lot or making a lot, *hence a very good OCL play.*”⁶³⁰

226. We also find that by flagging the trades as “OCL” in their computer application, Respondents distinguished their OCL Trades from Spread Trades and highlighted that their purpose was to collect—as the name implies—OCLs. Similarly, Respondents produced a spreadsheet to OE Staff identifying every “up-to congestion trade by Coaltrain . . . that constituted part of the OCL Strategy – including all trades that the

⁶²⁴ See COALTRAIN011540.

⁶²⁵ See Answer of Sheehan, Miller, and Hughes at 13 (citing Sheehan Decl. at P 11).

⁶²⁶ See COALTRAIN003512-3519; COALTRAIN011540.

⁶²⁷ R. Jones Test. Ex. CT-RJ 126. Robert Jones explained a “meg tester” involves “[b]idding to see if we could clear megs between the two interfaces.” R. Jones Test. Tr. at 203:21-24.

⁶²⁸ *Id.* Ex. CT-RJ 126.

⁶²⁹ See COALTRAIN011540.

⁶³⁰ Wells Test. Ex. 87 (emphasis added).

trader him/herself identified as an OCL trade”⁶³¹ The Commission rejects Respondents’ argument that this designation merely meant that the trades were eligible for MLSA credits. Some of Respondents’ trades labeled as “Spread,” rather than “OCL,” were also eligible for MLSA, as Respondents acknowledge.⁶³²

(b) **Respondents’ trading patterns under the OCL Strategy materially differed from the patterns under the Spread Strategy**

227. Respondents’ scienter is also reflected in differences in trading patterns between their OCL and Spread Strategies. Three principal differences in the trading patterns of the two strategies demonstrate that Respondents’ OCL Strategy was aimed solely or primarily at collecting MLSA payments. First, Respondents voluntarily increased their transaction costs for their OCL Trades by reserving paid transmission when they could have opted for free transmission without any MLSA disbursement. Coaltrain voluntarily paid for transmission on more than 99 percent of their OCL Trades by volume. In contrast, during the Manipulation Period, Respondents reserved transmission for only 18 percent of their Spread Trades by volume.⁶³³

228. Second, the volumes of Respondents’ OCL Trades differed significantly from the volumes of their Spread Trades. During the Manipulation Period, Respondents’ Spread Trades averaged approximately 70 MWh per transaction, paling in comparison to their OCL Trades, which averaged approximately 425 MWh for SouthImp-Exp, 660 MWh for NCMPImp-Exp, and 217 MWh for the other 38 paths.⁶³⁴ This large increase in volume for the OCL Trades reveals Respondents’ intent to engage in high-volume trading for the purpose of garnering MLSA payments with little exposure from price spreads.

⁶³¹ See COALTRAIN011540 (spreadsheet of OCL Trades produced by Coaltrain on Dec. 19, 2012 in response to OE Staff’s 6th Data Request).

⁶³² See Answer of Coaltrain and Individual Respondents at 37 n.158 (noting that “some of the trades labeled as ‘Spread’ trades were in fact eligible for MLSA”).

⁶³³ See Coaltrain and PJM Data. Moreover, Coaltrain admitted that it made a mistake when it scheduled SouthImp-Exp OCL Trades on June 20 and 21, 2010, using free transmission. Coaltrain Response to Enforcement’s Fourth Data Request, Question No. 10 (July 3, 2012).

⁶³⁴ See Coaltrain and PJM Data.

229. Third, Respondents' OCL Trades focused on peak periods of high load when MLSA payments tended to be at their highest. Respondents executed 97 percent of their OCL Trades during the peak period hours ending 10-22,⁶³⁵ and they frequently made note of this point when developing their strategy and proposing trades under it.⁶³⁶ In contrast, during the Manipulation Period Respondents executed only 53 percent of their Spread Trades during hours ending 10-22.⁶³⁷

(c) **Respondents' OCL Strategy conflicted with their understanding of the market-design purpose of UTC trading in PJM**

230. Respondents' testimony and contemporaneous statements reveal that they understood the market design purpose of UTC trades, which is to allow market participants to try to arbitrage price spreads between day-ahead and real-time prices, thereby fostering price convergence. For example, Mr. Peter Jones explained that UTCs "allow[] you to take a position within the day-ahead market, and that in turn would be arbitrated into the real-time market."⁶³⁸ He explained further how traders could make (or lose) money on such trades based on the trades' spread values.⁶³⁹ In addition, Coaltrain

⁶³⁵ *See id.*

⁶³⁶ *See, e.g.,* P. Jones Test. Vol. II Ex. 5 (Mr. Peter Jones advising that "average peak losses have been around a bit above 1.50 (depending upon month) and I would expect June losses to be up a bit given higher loads"); COALTRAIN012646, row 4197 (Mr. Robert Jones "suggest[ing] 9,500 megs [hours] 10-22"); COALTRAIN011542, Vote-Comments Tab, row 6214 (Mr. Wells proposing an "OCL play" for "300 MW, 10-22"); R. Jones Test. Ex. CT-RJ 16 (Mr. Robert Jones proposing trade and noting that the "best hours for losses are 12-22 for an average of \$1.38 in losses").

⁶³⁷ *See* Coaltrain and PJM Data.

⁶³⁸ P. Jones Test. Vol. I Tr. at 28:17-24.

⁶³⁹ *Id.* Tr. at 33:8-13; *see also* Sheehan Test. Vol. I Tr. at 51:23-24 ("An up-to congestion product is essentially a spread between two points."); Miller Test. Tr. at 22:16-18 ("You would make a profit based on the Real-Time spread being more positive if you paid for the Congestion than it was what you paid in the Day-Ahead."); R. Jones Test. Tr. at 20:1-2 ("The difference between the day-ahead and real-time LMP, between the two points."); Wells Test. Tr. at 32:18-24 ("[I]t would be a delta between a day-ahead and a real-time price that may be based on congestion or something else. But what you're looking for is typically congestion as a result of our analysis.").

joined a Commission filing on June 9, 2010, that acknowledged the purpose of UTC trading was not to target MLSA payments, but, rather, was to try to arbitrage day-ahead and real-time price differences. That filing stated:

There is no merit to any claim that updating the allocation percentage will give market participants perverse incentives to engage in virtual transactions in order to capture a larger share of the surplus. As always, market participants will conduct virtual transactions when they think they can profit from the difference between the day-ahead LMP and the real-time LMP they expect.⁶⁴⁰

231. This evidence supports our finding that Respondents understood that the purpose of UTC trading involved arbitraging price spreads, rather than eliminating or minimizing price spreads to profit solely or primarily from a collateral (MLSA) benefit.⁶⁴¹

(d) **Respondents consistently chose money-losing paths for their OCL Strategy**

232. Scierter is also shown by Respondents' willingness to trade on paths that consistently lost money when evaluated based on their price spreads and transaction costs. Overall, Respondents' OCL Trades lost more than \$96,000 on the price spreads. Further, combined with the transaction costs on these trades, the trades lost more than \$3.9 million. The strategy only became profitable because Coaltrain captured approximately \$8.05 million in MLSA payments.⁶⁴² The trade data demonstrate the money-losing nature of each type of trade. For example, because none of Respondents' SouthImp-Exp OCL Trades resulted in any price spread, they made no profits on the underlying spread and lost approximately \$2.4 million when accounting for transaction costs. Similarly, Respondents' NCMPImp-Exp OCL Trades had an average price spread of only \$0.11 per MWh, which, when considering transaction costs, resulted in a loss of approximately \$768,000 on the underlying transaction. Finally, Respondents' Other OCL Trades averaged a price spread of negative \$0.30 per MWh, which, when

⁶⁴⁰ Financial Marketers Request for Rehearing, Docket No. EL10-40-001, at 20 n.23 (filed June 9, 2010).

⁶⁴¹ See *City Power*, 152 FERC ¶ 61,012 at P 186.

⁶⁴² See Coaltrain and PJM Data.

combined with the transaction costs, resulted in a loss of more than \$733,000 without MLSA.⁶⁴³

(e) **Respondents created post hoc explanations for their OCL Strategy that conflicted with contemporaneous evidence**

233. Respondents further demonstrated a manipulative intent through their *post hoc* explanations for their trading conduct that conflicted with contemporaneous data and evidence.⁶⁴⁴ First, when questioned by the IMM about Coaltrain’s SouthImp-Exp OCL Trades, Mr. Peter Jones repeatedly represented that Coaltrain was executing the trades because it had seen price divergence on the path between the day-ahead and real-time prices. For example, on a July 26, 2010 call the IMM directly asked whether Coaltrain was “generally just trying to take advantage of price differences between SouthImp and SouthExp between day-ahead and real-time.”⁶⁴⁵ Mr. Peter Jones responded, “that’s part of our consideration, yes,” and “we’ve seen some pretty dramatic swings in pricing.”⁶⁴⁶ Although we agree that Coaltrain had seen some historical small price spreads on this path, at the time of these calls, Coaltrain had traded this path for 34 days without ever experiencing any price divergence on the path, and it generally understood from researching the path that it consistently had zero-spreads.

234. Second, after being contacted by the IMM and OE Staff regarding their OCL Trades, Respondents conducted research of historical price spreads on SouthImp-Exp and the profitability of their OCL Trades. Messrs. Peter Jones and Sheehan asked Mr. Hughes to conduct this research in August and September 2010, soon after the IMM raised concerns about trading on SouthImp-Exp.⁶⁴⁷ For example, on August 19, 2010, Mr. Sheehan asked Mr. Hughes whether it was “possible to determine the total number of

⁶⁴³ *See id.*

⁶⁴⁴ *Chen*, 151 FERC ¶ 61,179 at P 129; *see also Al-Adahi v. Obama*, 613 F.3d 1102, 1107 (D.C. Cir. 2010) (noting the “well-settled principle that false exculpatory statements are evidence— often strong evidence—of guilt”).

⁶⁴⁵ COALTRAIN000328 (July 26, 2010 voice recording at 10:40 – 10:52).

⁶⁴⁶ *Id.*

⁶⁴⁷ COALTRAIN007953 (Aug. 19, 2010 IM Conversation Between Hughes and Sheehan); COALTRAIN007990 (Sep. 16, 2010 IM Conversation Between Hughes and Sheehan).

5 minute pricing intervals when the southimp and southexp had different prices.”⁶⁴⁸ In response, Mr. Hughes sent Mr. Sheehan a file and noted that prices diverged 37 percent of the time since July 2007.⁶⁴⁹ Later, in September 2010, Mr. Hughes performed research on the profitability of OCL Trades for Mr. Sheehan and found that Coaltrain “ma[de] money on 40% of our trades.”⁶⁵⁰ Mr. Sheehan responded, “nice its strong evidence of loss leaders.”⁶⁵¹ Mr. Sheehan also asked Mr. Hughes, “for the profitability is there a way to link the trades if they were spreads.”⁶⁵² The timing of this research indicates that it was another attempt to create *post hoc* explanations for their conduct. These attempts to disguise the true nature of Respondents’ trades provide additional support for our finding of Respondents’ manipulative intent.

(f) **The evolution of Respondents’ OCL Strategy reflects a desire to find trades with the least amount of price divergence and best opportunity to profit solely or primarily from MLSA payments**

235. Throughout the Manipulation Period, Respondents were continuously searching for trading paths with the least amount of price divergence, so they could minimize risk from price spreads and profit solely or primarily based on MLSA payments. After discovering their eligibility for MLSA payments in early June 2010, Respondents started researching “low-risk,” low-cost paths that had a high likelihood of garnering MLSA payments that made the trades profitable. Between June 15, 2010 and June 19, 2010, Respondents experimented with trading modest volumes on several of the Other OCL Trade paths.⁶⁵³ These experiments were soon dwarfed (in volume, trades, and days) when Respondents discovered SouthImp-Exp path on June 17, 2010. After discovering that SouthImp-Exp had “perfectly 0” day-ahead spreads and minimal, if any, day-ahead

⁶⁴⁸ COALTRAIN007953 (Aug. 19, 2010 IM Conversation Between Hughes and Sheehan).

⁶⁴⁹ *See id.*

⁶⁵⁰ COALTRAIN007990 (Sep. 16, 2010 IM Conversation Between Hughes and Sheehan).

⁶⁵¹ *Id.*

⁶⁵² *Id.*

⁶⁵³ *See* Coaltrain and PJM Data.

to real-time spreads, Respondents traded this path for 34 days between June 19 and July 27, 2010 and stopped only after they were contacted by the IMM about such trades.⁶⁵⁴ Similarly, Respondents focused on NCMPAImp-Exp between July 8 and July 31, 2010, after discovering that this path also had minimal price spreads, stopping only after being contacted by the IMM about these trades.

236. Thus, after experimenting on a few of the Other OCL Trade paths, Respondents largely focused on the more successful SouthImp-Exp and NCMPAImp-Exp paths until the IMM raised concerns about those paths. After their discussions with the IMM, Respondents went back to searching for and trading on Other OCL Trade paths to continue their OCL Strategy and replace the profits they made on SouthImp-Exp and NCMPAImp-Exp. Specifically, when they stopped trading on SouthImp-Exp and NCMPAImp-Exp, Respondents picked 23 new Other OCL Trade paths to start trading.⁶⁵⁵

237. This evolution of Respondents' OCL Strategy—from experimenting on a few of the Other OCL Trade paths, to focusing on SouthImp-Exp and NCMPAImp-Exp, to searching for and trading additional paths when the IMM raised concerns about SouthImp-Exp and NCMPAImp-Exp—reflects their motive to find and trade the paths with the least amount of price spread risk and greatest probability of profiting solely or primarily based on MLSA payments.

(g) **Respondents attempted to cover-up evidence of their OCL Strategy**

238. Respondents' failure to provide OE Staff with all relevant information about their OCL Strategy, described in greater detail below, provides further evidence of their scienter. As detailed below, Respondents withheld relevant documents—recorded on the Spector 360 software application—discussing their OCL Strategy and only produced the documents after OE Staff discovered their existence on its own. This attempted cover-up is a strong indicator of Respondents' manipulative intent.⁶⁵⁶

⁶⁵⁴ *See id.*

⁶⁵⁵ *See* COALTRAIN011540.

⁶⁵⁶ *City Power*, 152 FERC ¶ 61,012 at P 191; *see also In re Nature's Sunshine Prods. Sec. Litig.*, 486 F. Supp. 2d 1301, 1310 (D. Utah 2007) (“Evidence that a defendant has taken steps to cover-up a misdeed is strong proof of scienter.”); *Nathanson v. Polycom, Inc.*, 87 F. Supp. 3d 966, 979 (N.D. Cal. 2015) (finding that defendant would not have made efforts to “hide . . . inappropriate expense claims without intent to defraud”); *Szulik v. Tagliaferri*, 966 F. Supp. 2d 339, 366 (S.D.N.Y. 2013) (finding that

(continued...)

239. Each Respondent—Messrs. Peter Jones, Robert Jones, Sheehan, Miller, and Wells—is linked to at least some of the foregoing evidence showing their intent to participate in a coordinated manipulative scheme. In light of this evidence, we find that each Respondent acted with the requisite scienter to satisfy the requirements of section 222 of the FPA and the Anti-Manipulation Rule.

240. Moreover, we reject Respondents’ various arguments disputing scienter. Their argument that OE Staff did not provide any documentary or testimonial evidence of scienter has no basis in the Record before the Commission. The Record includes both direct and circumstantial evidence—including contemporaneous statements and actions, trade data, testimony, and other evidence—demonstrating that Respondents engaged in a coordinated scheme to trade UTCs for the sole or primary purpose of collecting MLSA payments that otherwise would have gone to other market participants. It is of no consequence that part of the Commission’s scienter finding is based on circumstantial evidence. As we have held, a fraudulent intent can be shown through direct evidence as well as “legitimate inferences from circumstantial evidence.”⁶⁵⁷ “These inferences are based on the common knowledge of the motives and intentions of men in like circumstances.”⁶⁵⁸

241. We also reject Respondents’ argument that because scienter is disputed, we cannot render a decision based solely on a written record. Respondents declined to have an administrative hearing under FPA section 31(d)(2) and, instead, elected under FPA

the complaint sufficiently alleged scienter in a securities fraud action, based, in part, on the allegation that defendants “prepar[ed] backdated invoices” in an effort to “cover[] their tracks”).

⁶⁵⁷ *Barclays*, 144 FERC ¶ 61,041 at P 75.

⁶⁵⁸ *Id.* (citing *United States v. Sullivan*, 406 F.2d 180, 186 (2d Cir. 1969)); *see also Maxim Power Corp.*, 151 FERC ¶ 61,094, at P 88 n.209 (2015) (*Maxim Power*); *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.”); *Herman & MacLean v. Huddleston*, 459 U.S. 375, 390 n.30 (1982) (“[P]roof 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 . . .”).

section 31(d)(3) for the Commission to resolve factual questions in this order to show cause proceeding, which will then be reviewed by a district court. Moreover, Respondents' reliance on *Union Pacific Fuels* is misplaced. They quote this case for the proposition that "FERC may resolve factual issues on a written record unless motive, intent, or credibility are at issue or there is a dispute over a past event."⁶⁵⁹ However, *Union Pacific Fuels* was decided in the context of a Natural Gas Act complaint filed by a shipper challenging a pipeline's rates,⁶⁶⁰ where the Commission itself decided whether it could resolve factual issues or set the matter for an evidentiary hearing if it deemed necessary. The posture of *Union Pacific Fuels* thus has no bearing on the instant matter because here, the FPA gives Respondents a choice of an evidentiary hearing and they declined this opportunity, instead asking for the Commission to render a decision that can then be reviewed by a district court. Therefore, under the procedure selected by Respondents, the Commission resolves disputed questions of fact in this order to show cause proceeding.⁶⁶¹

242. Finally, the Commission rejects Respondents' argument that the evidence shows that MLSA was merely one consideration taken into account in their OCL Strategy, and that they thought the trades were lawful. The evidence described above—including that Respondents labeled their trades "OCL," paid for transmission, and consistently chose paths that would have lost money but for MLSA payments—overwhelmingly shows that the OCL Strategy was aimed solely or primarily at collecting MLSA payments. Moreover, we are not persuaded by the argument that Respondents believed their trading behavior was lawful. Scierter does not require evidence that Respondents intended to break the law, but, rather, only that they intended to take certain actions and knew the consequences of such actions.⁶⁶²

⁶⁵⁹ Answer of Coaltrain and Individual Respondents at 83 (citing *Union Pac. Fuels*, 129 F.3d at 164).

⁶⁶⁰ See *Union Pac. Fuels*, 129 F.3d at 160-161.

⁶⁶¹ Further, even if the Commission were not permitted to draw conclusions pertaining to credibility (which is not the case), our finding of scierter in this case would be the same without such conclusions because the other evidence overwhelmingly shows that each Respondent engaged in a coordinated scheme to trade UTCs for the sole or primary purpose of collecting MLSA payments.

⁶⁶² *Pittsburgh Terminal Corp. v. Balt. & Ohio R.R. Co.*, 680 F.2d 933, 942 (3d Cir. 1982) ("A violation of Section 10(b) does not require a specific intention to break the law. It requires only knowing or intentional actions which, objectively examined,

(continued...)

c. In Connection with a Jurisdictional Transaction

243. The third element of establishing a violation under FPA section 222 and the Commission’s Anti-Manipulation Rule is determining whether the conduct in question was “in connection with” a transaction subject to the Commission’s jurisdiction.⁶⁶³

244. Section 201(b)(1) of the FPA confers jurisdiction on the Commission over “the transmission of electric energy in interstate commerce and . . . the sale of electric energy at wholesale in interstate commerce.”⁶⁶⁴ In addition, as the U.S. Supreme Court recently recognized, FPA section 205(a) confers jurisdiction on the Commission over “[a]ll rates and charges made, demanded, or received by any public utility for or in connection with’ interstate transmissions or wholesale sales—as well as ‘all rules and regulations affecting or pertaining to such rates or charges.’”⁶⁶⁵ The Supreme Court held that this provision “means FERC has the authority—and, indeed, the duty—to ensure that rules or practices ‘affecting’ wholesale rates are just and reasonable,” and that the Commission’s jurisdiction extends to “rules or practices that ‘directly affect the [wholesale] rate.’”⁶⁶⁶

i. Respondents’ Answers

245. Respondents do not explicitly dispute the Commission’s jurisdiction over their OCL Trades. However, in the context of arguing that their trades did not cause market harm, Respondents argue that the trades did not affect PJM’s dispatch, market prices, or

amount to a violation.”); *SEC v. Falstaff Brewing Corp.*, 629 F.2d 62, 77 (D.C. Cir. 1980) (“Knowledge means awareness of the underlying facts, not the labels that the law places on those facts. Except in very rare instances, no area of the law not even the criminal law demands that a defendant have thought his actions were illegal. A knowledge of what one is doing and the consequences of those actions suffices.”).

⁶⁶³ 16 U.S.C. § 824v(a) (2012); 18 C.F.R. § 1c.2 (2015).

⁶⁶⁴ 16 U.S.C. § 824(b)(1) (2012).

⁶⁶⁵ *FERC v. Elec. Power Supply Ass’n*, 136 S. Ct. 760, 767 (2016) (citing 16 U.S.C. § 824d(a)).

⁶⁶⁶ *Id.* at 774 (quoting *Cal. Indep. Sys. Operator Corp. v. FERC*, 372 F.3d 395, 403 (D.C. Cir. 2004)).

available transmission.⁶⁶⁷ These arguments are relevant to the Commission's determination on jurisdiction.

ii. OE Staff Report and Reply

246. OE Staff alleges that Respondents' OCL Trades were in connection with jurisdictional transactions because the trades were included in PJM's day-ahead pricing model, thereby affecting prices and dispatch.⁶⁶⁸ In addition, OE Staff contends that the trades were in connection with jurisdictional transmission because, at the time, UTC trades required transmission reservations and thereby affected available transmission capacity.⁶⁶⁹

iii. Commission Determination

247. We find that the Commission has jurisdiction over Respondents' OCL Trades executed during the Manipulation Period. Our jurisdiction extends to the transmission or sale of electric energy at wholesale in interstate commerce,⁶⁷⁰ as well as the responsibility to ensure that rates and charges for transmission and wholesale power sales—and all rules and regulations affecting such rates and charges—are just and reasonable and not unduly discriminatory or preferential.⁶⁷¹ Moreover, the Court of Appeals for the District of Columbia Circuit has affirmed in recent years that the Commission has “authority [under the FPA] to regulate the activity of traders who participate in energy markets.”⁶⁷²

248. We found the same UTC transactions at issue here to be jurisdictional in *Chen* and *City Power*.⁶⁷³ As in those cases, Respondents here engaged in UTC trades within PJM's energy market and their UTC transactions, associated transmission service reservations,

⁶⁶⁷ Answer of Coaltrain and Individual Respondents at 63-67.

⁶⁶⁸ Staff Report at 93.

⁶⁶⁹ *Id.*

⁶⁷⁰ 16 U.S.C. § 824(b) (2012).

⁶⁷¹ *Id.* § 824d(a); see also *Elec. Power Supply Ass'n*, 136 S. Ct. at 767 (citing 16 U.S.C. § 824d(a)).

⁶⁷² *Kourouma*, 723 F.3d at 276.

⁶⁷³ *Chen*, 151 FERC ¶ 61,179 at PP 144-148; *City Power*, 152 FERC ¶ 61,012 at PP 198-203.

and MLSA payments were implemented under PJM's Commission-approved tariff.⁶⁷⁴ Thus, by virtue of engaging in UTC transactions and benefiting from MLSA allocation, both of which operated under a Commission-approved tariff within PJM, a Commission-regulated RTO, we find the UTC trades at issue are under our jurisdictional purview.

249. The Commission has explained that it has jurisdiction over practices that affect rates and because "convergence bidding affects the market clearing price for wholesale power by determining, in conjunction with other bids, the unit that sets the market clearing price, the Commission has statutory authority over this type of bidding to ensure that the rates it produces are just and reasonable."⁶⁷⁵ Therefore, we conclude that we have jurisdiction over Respondents' virtual product trades conducted during the Manipulation Period.

250. Further, Respondents' OCL Trades involved the reservation of jurisdictional transmission services within the PJM market. At the time Respondents executed their OCL Trades, all UTC transactions were required to reserve transmission service and, as such, Respondents scheduled non-firm transmission service. As explained above, transmission of energy is within the Commission's jurisdiction. Moreover, the Commission's jurisdiction over transmission is extremely broad.⁶⁷⁶ Respondents' UTC bids and associated transmission service reservations were integral to the settlement of PJM's day-ahead market, regardless of whether the transmission reservations ultimately involved delivery of physical energy.

251. Apart from our direct jurisdiction, Respondents' conduct also was "in connection with" other market participants' jurisdictional transactions such that the necessary jurisdictional nexus under FPA section 222 is satisfied on this basis. We have noted that the "in connection with" element encompasses "situations in which there is a nexus between the fraudulent conduct of an entity and a jurisdictional transaction."⁶⁷⁷ Even

⁶⁷⁴ *Black Oak Energy, L.L.C. v. PJM Interconnection, L.L.C.*, 128 FERC ¶ 61,262; *PJM Interconnection, L.L.C.*, 91 FERC ¶ 61,148 (2000); *Atlantic City Elec. Co.*, 86 FERC ¶ 61,147 (1999).

⁶⁷⁵ *Cal. Indep. Sys. Operator Corp.*, 110 FERC ¶ 61,041, at P 31 (2005).

⁶⁷⁶ *New York v. FERC*, 535 U.S. 1, 16-17 (2002) (noting that the Commission has jurisdiction over the entire transmission grid).

⁶⁷⁷ Order No. 670, FERC Stats. & Regs. ¶ 31,202 at P 22; *see also Barclays*, 144 FERC ¶ 61,041 at P 113; *BP America Inc.*, 147 FERC ¶ 61,130, at P 23 (2014); *Chen*, 151 FERC ¶ 61,179 at P 148.

where underlying fraudulent transactions do not involve the transmission or sale of electric energy in interstate commerce, they nonetheless can fall within the ambit of our jurisdiction if “the entity . . . intend[s] to affect, or . . . act[s] recklessly to affect, a jurisdictional transaction.”⁶⁷⁸ We find that Respondents’ OCL Trades and associated transmission service reservations affected the amount of transmission service available to other market participants to use for their transactions, including physical power sales. We further find that their OCL Trades altered the amount of MLSA payments that otherwise would have been distributed to other market participants pursuant to the applicable PJM tariff provision. We find each of these contacts with transactions subject to the Commission’s jurisdiction is a sufficient nexus to establish jurisdiction under FPA section 222.

d. There Is Sufficient Evidence of Each Individual Respondent’s Intent to Carry Out and Participate in a Joint, Coordinated Scheme

252. We have found that the Record contains sufficient evidence that each Respondent participated in and knowingly performed acts in furtherance of a joint, coordinated scheme to trade UTCs for the sole or primary purpose of collecting MLSA payments that otherwise would have gone to other market participants. Therefore, each Respondent individually, and acting together, violated the Anti-Manipulation Rule. Despite this evidence, Respondents claim that OE Staff fails to address “important differences in each Respondent’s involvement with the conduct at issue,”⁶⁷⁹ and that the allegations are vague and “fail[] to apprise each Individual Respondent of the specific conduct in which he is alleged to have engaged.”⁶⁸⁰ These arguments have no merit, as demonstrated by examples of the evidence for each individual Respondent, highlighted below.

253. Mr. Peter Jones participated in all facets of Respondents’ fraudulent OCL Strategy. Starting in early June 2010, soon after Coaltrain learned of its eligibility for MLSA payments, Mr. Peter Jones participated in the development of the OCL Strategy, including researching and identifying certain UTC paths that were good candidates for the strategy and coordinating ideas for the scheme with other Respondents.⁶⁸¹ Mr. Peter

⁶⁷⁸ Order No. 670, FERC Stats. & Regs. ¶ 31,202 at P 22.

⁶⁷⁹ Answer of Coaltrain and Individual Respondents at 7.

⁶⁸⁰ Answer of P. Jones, R. Jones, and Wells at 24-27.

⁶⁸¹ See, e.g., P. Jones Test. Vol. II Ex. 5 (advising Mr. Miller about OCL Trades on June 10, 2010, explaining, “average peak losses have been around a bit above 1.50

(continued...)

Jones also played a significant role executing the OCL Strategy, making more than five percent of OCL Trades himself,⁶⁸² and communicating his approval and instruction for many more of the trades.⁶⁸³ Mr. Peter Jones' participation in the scheme also included efforts to try to conceal the true nature of the OCL Strategy and to create false *post hoc* explanations when questioned by the IMM, which reflects his scienter.⁶⁸⁴ Finally, Mr. Peter Jones' participation in and motive for the scheme is also reflected in his attempt to cover up evidence of Coaltrain's OCL Strategy by failing to produce relevant documents in Spector 360, when he knew of the existence of Spector 360 data.⁶⁸⁵

254. Like Mr. Peter Jones, Mr. Sheehan played a key role in developing and implementing Respondents' OCL Strategy. Starting in early June 2010, Mr. Sheehan was heavily involved in strategizing about, designing, and implementing the scheme.⁶⁸⁶

(depending upon month) and I would expect June losses to be up a bit given higher loads"); *id.* Ex. 12 (discussing OCL Strategy with Mr. Sheehan on June 5, 2010).

⁶⁸² COALTRAIN003512-3519; COALTRAIN011540.

⁶⁸³ *See, e.g.*, R. Jones Test. Ex. CT-RJ 126 (approving Mr. Robert Jones' "meg tester for a high load/high loss credit day" on NCMPAImp-Exp); Wells Test. Ex. 87 (approving Mr. Wells' "very good OCL play" recommendation and instructing, "good for this for 100 scaling up to see what happens with prices"); Wells Screenshot 99 (approving Mr. Wells' "OCL play" recommendation). In his advisory role, the evidence is clear that Mr. Peter Jones understood that the focus and motive for the trades he approved was to profit from MLSA payments and not from price spreads.

⁶⁸⁴ *See, e.g.*, COALTRAIN000328 (July 26, 2010, voice recording) (representing to the IMM that Coaltrain placed trades on SouthImp-Exp to take advantage of price differences and that Coaltrain had "seen some pretty dramatic swings in pricing"); COALTRAIN011541 (Aug. 6, 2010, voice recording at 6:19-6:54) (explaining Coaltrain's purpose for the SouthImp-Exp OCL Trades and claiming that "[a]t the time we saw price deltas in the day ahead and in the real time").

⁶⁸⁵ *See, e.g.*, Coaltrain Letter and Affidavit to Response to Enforcement's Amended Second Data Request (Feb. 3, 2011); Coaltrain Letter and Affidavit to Response to Enforcement's Third Data Request (May 25, 2012) (attesting that Coaltrain's responses were "true, complete, and accurate"); Letter and Affidavit to Coaltrain Response to Enforcement's Fifth Data Request (Jul. 20, 2012) (falsely claiming that Coaltrain could not access Spector 360 materials). *See also infra* Section II.B.2.c.

⁶⁸⁶ *See, e.g.*, P. Jones Test. Vol. II Ex. 12 (explaining to Mr. Peter Jones on June 5, 2010, that a certain UTC trade made sense because the MLSA payments were roughly

(continued...)

In addition, Mr. Sheehan executed some of the OCL Trades,⁶⁸⁷ and participated in the research and decisions to trade many of the OCL trading paths.⁶⁸⁸ Mr. Sheehan's participation in the scheme also involved his efforts to create false after-the-fact explanations for the OCL Strategy after the IMM raised concerns and OE Staff commenced its investigation.⁶⁸⁹

255. Mr. Robert Jones also played an important role in the OCL Strategy trading scheme by proposing and executing trades. In close coordination with the other Respondents, he executed the second most OCL Trades—over 44 percent—of all Respondents.⁶⁹⁰ Using Coaltrain's internal software applications, he recommended "OCL plays" to other Respondents, including Mr. Peter Jones, making clear that the purpose of the trades was to capture MLSA payments.⁶⁹¹

256. Similarly, Mr. Wells proposed and executed many of Respondents' OCL Trades. In coordination with other Respondents, he executed more of the OCL Trades—over 46

the size of the day-ahead spread, "mean[ing] its [a] free trade"); Miller Spector 360 Chat IM (June 10, 2010 9:34 a.m.) (strategizing with Mr. Miller about the OCL Strategy and advising, "each trade for ocl will be unique... if its same sorce [sic] sink in an out then its purely the ocl value... but if its just a strict import then it has to be evaluated on its merits as well").

⁶⁸⁷ See COALTRAIN003512-3519; COALTRAIN011540.

⁶⁸⁸ See, e.g., Hughes Test. Ex. CT-55 (learning about the SouthImp-Exp path from Mr. Hughes and telling him that the day-ahead spread on the path was "perfectly 0"); Wells Test. Ex. 69 (approving "OCL play" recommended by Mr. Wells).

⁶⁸⁹ See, e.g., COALTRAIN007953 (asking Mr. Hughes whether it was "possible to determine the total number of 5 minute pricing intervals when the southimp and southexp had different prices"); COALTRAIN007990 (asking Mr. Hughes whether, "for the profitability is there a way to link the trades if they were spreads").

⁶⁹⁰ See COALTRAIN003512-3519; COALTRAIN011540.

⁶⁹¹ See, e.g., COALTRAIN011542, Vote-Comments Tab, Row 2738 (suggesting a trade between Rockport and AK Steel as an "OCL play" for "800 megs 12-22"); COALTRAIN011542, Vote-Comments Tab, Row 2646 (proposing a "HE 12-22 OCL play [between EBEND2 and MIAMI FORT 7] 150 megs . . . So far this month the best hours for losses are 12-22 for an average of \$1.38 in losses").

percent—than any other Respondent.⁶⁹² And like Mr. Robert Jones, he frequently proposed trades, making clear that the purpose of the trades was to capture MLSA payments and not to profit from spread differences. He routinely identified proposed trades as “OCL plays,” and discussed how the trades could make money, making clear that their profitability depended on MLSA.⁶⁹³ In addition, Mr. Wells advised others at Coaltrain about which trades did not make sense as “OCL plays” and, in doing so, made clear that the motive with “OCL plays” was to collect loss credits and not to speculate on price spreads.⁶⁹⁴

257. Finally, Mr. Miller was heavily involved in researching, strategizing about, designing, and implementing Coaltrain’s OCL Strategy, in close coordination with the other Respondents. Also, he participated in decisions to execute OCL Trades. Early in June 2010, after Respondents discovered their eligibility for MLSA payments, Mr. Miller conducted research about the credits.⁶⁹⁵ Soon after conducting this research, Mr. Miller strategized about the OCL Strategy with his colleagues, and these early discussions show that he viewed the strategy as a way to profit solely, or in large part, from MLSA

⁶⁹² See COALTRAIN003512-3519; COALTRAIN011540.

⁶⁹³ See, e.g., Wells Test. Ex. 87 (recommending an OCL Trade and advising, “it goes up and down but it averages out never losing a lot or making a lot, hence a very good OCL play”); *id.* Ex. 69 (proposing “an OCL play,” and noting that during the “[l]ast 14 days you get paid to take it and it paid off 12 out of 14 days”); *id.* Ex. 92 (proposing an “OCL play,” and advising, “[l]ooking at like days, loss credits could be in the 1.7-1.8 range. Not too shabby”). See also *id.* Exs. 59, 68, 81, 82, 88, 89, 104 (recommending “OCL plays”).

⁶⁹⁴ See *id.* Ex. 93 (advising Mr. Miller that he did not “consider [a proposed trade] an OCL play,” explaining that “[o]n strict OCL plays we try to price above the highest price we have seen, or at least for the last month or so. This spread was over \$18 this month actually averaging over \$9 On-Peak that day. *I would not want to pay that to make a dollar on Loss Credits*” (emphasis added)).

⁶⁹⁵ See, e.g., Miller Test. Ex. CTJM-18 (Google searches for term “OCL”); Sheehan Test. Ex. CTS-5 (searching PJM website for information on MLSA); *id.* Exs. CTJM-30, CTJM-32 (researching price spreads on UTC paths).

payments, as distinguished from Coaltrain's Spread Strategy.⁶⁹⁶ Mr. Miller also advised, directed, and coordinated with other Coaltrain traders to execute OCL Trades.⁶⁹⁷

2. Coaltrain's Violation of 18 C.F.R. § 35.41(b)

258. Section 35.41(b) of the Commission's regulations provides:

A Seller must provide accurate and factual information and not submit false or misleading information, or omit material information, in any communication with the Commission, Commission-approved market monitors, Commission-approved regional transmission organizations, Commission-approved independent systems operators, or jurisdictional transmission providers, unless Seller exercises due diligence to prevent such occurrences.⁶⁹⁸

259. OE Staff alleges that Coaltrain violated section 35.41(b) by, among other things, concealing the existence of Spector 360 documents. As discussed below, we agree with OE Staff that Coaltrain violated section 35.41(b) during the course of the investigation by making false and misleading statements and omitting material information to OE Staff regarding the existence of Spector 360 data.

a. Coaltrain's Answer

260. Coaltrain argues that section 35.41(b) does not apply to discovery disputes and the Commission has not previously considered this type of interpretation of Market Behavior Rule 3.⁶⁹⁹ Coaltrain argues that Market Behavior Rule 3, codified as section 35.41(b),

⁶⁹⁶ See Miller Spector 360 Chat IM (June 10, 2010 9:34 a.m.) (strategizing with Mr. Sheehan about OCL Strategy, including asking "what price would we expect to make money on for OCLs," and advising that "the OCL strategy [is] out the window as soon as you pay more than the OCL number...it is strictly an upto at that point").

⁶⁹⁷ See, e.g., Wells Test. Ex. 55 (responding "no go ahead . . . thx" to Mr. Wells' question of whether there was any reason Mr. Wells "should not submit the OCL plays"); R. Jones Test. Ex. CT-RJ 126 (approving Mr. Robert Jones' recommendation to perform a meg tester on NCMPAImp-Exp); Wells Test. Ex. 61 (responding "like it" to Mr. Robert Jones' "OCL play" recommendation).

⁶⁹⁸ 18 C.F.R. § 35.41(b) (2015).

⁶⁹⁹ Answer of Coaltrain and Individual Respondents at 79.

was established under FPA section 206 to set just and reasonable rates and that FPA section 206 only authorizes the Commission to regulate wholesale electric power or transmission rates, not interactions that do not involve rate-related market conduct.⁷⁰⁰ Coaltrain further asserts that the order implementing Market Behavior Rule 3 states that the Market Behavior Rules apply to “establish clear guidelines applicable to market-based sellers’ conduct in the wholesale markets.”⁷⁰¹ Coaltrain contends that the Commission would violate the Administrative Procedures Act if it were to expand the scope of that rule.⁷⁰²

261. Coaltrain argues that even if interpreted under the just and reasonable rates authority, the specific statutory provisions relating to the Commission’s investigatory powers trump the more general provisions to set just and reasonable rates.⁷⁰³ It argues that those specific provisions allow the Commission to seek an order from a federal district court to compel enforcement of a subpoena for the production of documents in the investigatory process.⁷⁰⁴

262. Coaltrain argues that interpreting Market Behavior Rule 3 to apply to discovery disputes could create serious issues involving the right to representation by counsel.⁷⁰⁵ For example, Coaltrain contends, such an interpretation could prevent counsel from making good faith objections relating to discovery.⁷⁰⁶

263. Coaltrain denies that it intentionally failed to produce Spector 360 documents and claims that it exercised good faith and due diligence in responding to OE Staff’s data requests. Coaltrain’s argument is based on four factors. First, it claims it did not realize Spector 360 documents were potentially responsive.⁷⁰⁷ Second, it claims that the Spector

⁷⁰⁰ *Id.* at 76.

⁷⁰¹ *Id.*

⁷⁰² *Id.* at 77.

⁷⁰³ *Id.* at 77-78.

⁷⁰⁴ *Id.* at 78.

⁷⁰⁵ *Id.*

⁷⁰⁶ *Id.*

⁷⁰⁷ *Id.* at 68.

360 documents were exculpatory; thus, it claims it was to its benefit to produce them.⁷⁰⁸ Third, it claims it exercised due diligence in attempting to respond to OE Staff's data requests.⁷⁰⁹ Fourth, it claims that it previously made OE Staff aware of the Spector 360 database in a prior matter and it would therefore be illogical to deny its existence.⁷¹⁰

264. Coaltrain claims to have forgotten about the Spector 360 documents because it did not regularly utilize Spector 360. It explains that the employee responsible for installing and maintaining the Spector 360 program left the company in October 2010 before Coaltrain received OE Staff's First Data Request.⁷¹¹ In light of this employee's departure and because the other Respondents did not personally access Spector 360, Coaltrain claims its failure to produce those documents was inadvertent.⁷¹² It states that once Spector 360 was identified as a source of potentially responsive information, it promptly produced the documents,⁷¹³ which, it claims, were exculpatory because they show that Coaltrain undertook legitimate market analysis.⁷¹⁴ Coaltrain argues that its commitment to preserving and producing all responsive information is evidenced by the fact it instructed its employees to preserve all potentially relevant files and by the process it used to search those files.⁷¹⁵ In addition, Coaltrain states that it relied upon prior counsel's experience and expertise to respond to OE Staff's data requests.⁷¹⁶ Coaltrain maintains that if prior counsel failed to identify all documents, that does not mean Coaltrain did not exercise due diligence.⁷¹⁷ Coaltrain also points out that it did not have

⁷⁰⁸ *Id.* at 71.

⁷⁰⁹ *Id.* at 69; Declaration of Peter Jones, Mar. 4, 2016 (Jones Decl.), PP 9-11.

⁷¹⁰ Answer of Coaltrain and Individual Respondents at 72.

⁷¹¹ *Id.* at 70-71.

⁷¹² *Id.* at 68; Declaration of Gary Wrinn, Mar. 4, 2016, P 3; Sheehan Decl. P 15 ("I did not personally search for or gather the Spector 360 data in that instance [referring to Kourouma]; Gary Wrinn provided information to me from Spector 360").

⁷¹³ Answer of Coaltrain and Individual Respondents at 68, 70.

⁷¹⁴ *Id.* at 71.

⁷¹⁵ *Id.* at 69; Jones Decl. PP 9-11.

⁷¹⁶ Answer of Coaltrain and Individual Respondents at 69 -70.

⁷¹⁷ *Id.* at 70.

in-house counsel and did not have experience responding to data requests.⁷¹⁸ It further states that because it relied on Spector 360 documents in the *Kourouma* matter, OE Staff was aware of the databases' existence and failed to expressly request documents from it.⁷¹⁹

265. Coaltrain argues that there was no intention to violate section 35.41(b) and that in a data production of great magnitude, "there will always be documents overlooked."⁷²⁰ It claims that this lack of intent precludes a finding against it because, it contends, finding a violation of section 35.41(b) requires a showing of intent.⁷²¹

266. Coaltrain notes that the certifications to the data requests were qualified by the statement, "to the best of my knowledge, information and belief" and asserts that there is no evidence that Mr. Peter Jones (who certified the data request) had actual knowledge that the responses were incomplete.⁷²² Respondents Peter Jones, Robert Jones, and Wells note that the data requests provided for the opportunity to update productions and argues that a supplemental production should not be evidence that a previous production was false and misleading.⁷²³ Coaltrain argues that even if inculpatory evidence was uncovered, which it maintains was not the case, OE Staff's investigation suffered no harm because no evidence was destroyed and responsive documents were eventually produced.⁷²⁴

b. OE Staff Report and Reply

267. OE Staff alleges that Coaltrain violated section 35.41(b) by concealing Spector 360 documents and that even after Spector 360 was identified as a source of potentially responsive information, Coaltrain failed to be candid and forthright. OE Staff contends that Coaltrain's explanation that it simply "forgot" about Spector 360 is not credible. OE

⁷¹⁸ *Id.* at 69.

⁷¹⁹ *Id.* at 72.

⁷²⁰ Answer of P. Jones, R. Jones, and Wells at 27.

⁷²¹ Answer of Coaltrain and Individual Respondents at 80-81.

⁷²² *Id.* at 73.

⁷²³ Answer of P. Jones, R. Jones, and Wells at 27.

⁷²⁴ Answer of Coaltrain and Individual Respondents at 74.

Staff states that Coaltrain installed Spector 360 on the home and work computers of every employee (except Messrs. Peter Jones and Sheehan) and required those employees to sign a waiver acknowledging their computers were being monitored.⁷²⁵ In addition, OE Staff alleges that Coaltrain utilized Spector 360 documents to terminate two employees, one in June 2010 and another in 2009 (both occurring prior to Coaltrain receiving OE Staff's Second Data Request in November 2010 for the production of relevant documents).⁷²⁶

268. Moreover, OE Staff alleges that Coaltrain personnel contacted Spector 360 14 times between August 2010 and January 2011, the time period when it was responding to OE Staff's data requests.⁷²⁷ For example, on August 19, 2010, someone from Coaltrain contacted Spector 360 about upgrading to a new version.⁷²⁸ On November 19, 2010, a couple of weeks after receiving OE Staff's Second Data Request, Mr. Hughes emailed Mr. Sheehan and Mr. Peter Jones "to let you know that I logged into Spector this morning to view the activity on the computer in the team room."⁷²⁹ Only a few days after the company completed its response to OE Staff's Second Data Request, Coaltrain renewed its licensing contract with Spector 360.⁷³⁰

269. OE Staff alleges that Coaltrain maintained annual licenses for Spector 360 at a cost of thousands of dollars and received updates on the software through at least early 2011 (when responding to OE Staff's Second Data Request issued in November 2010).⁷³¹ OE Staff also points out that Coaltrain had a number of technical issues with Spector 360 and sought technical assistance. For example, on July 6, 2010 (prior to receiving OE Staff's Second Data Request), Mr. Hughes sent an IM to Mr. Peter Jones to inform him that "Bob's computer crash this morning was caused by Spector."⁷³² On approximately 14 separate occasions between August 2010 and January 2011 (when OE Staff's first two

⁷²⁵ Staff Report at 110.

⁷²⁶ *Id.* at 63-64.

⁷²⁷ *Id.* at 64 (citing SpectorSoft0002-3 10/24/12).

⁷²⁸ *Id.* at 110 (citing SpectorSoft0002-3 10/24/12).

⁷²⁹ COALTRAIN0011640.

⁷³⁰ SpectorSoft0002-3.

⁷³¹ Staff Report at 63, 64.

⁷³² COALTRAIN007150.

data requests had been issued), both Mr. Hughes, who was responsible in part for responding to OE Staff's data requests, and other Coaltrain employees, contacted Spector 360's technical support team.⁷³³

270. OE Staff alleges that both Messrs. Peter Jones and Sheehan installed Spector 360 or programs similar to Spector 360 at their new companies.⁷³⁴ With regard to Mr. Sheehan's new company, OE Staff alleges that Mr. Hughes, the Coaltrain employee who followed Mr. Sheehan to his new company, coordinated the migration of Spector 360 data to the new company and showed a significant understanding of Spector 360 in doing so.⁷³⁵

271. OE Staff states that in the Fifth Data Request issued on July 3, 2012, it specifically requested the production of Spector 360 data. On July 20, 2012, Coaltrain claimed that it could not retrieve the requested data because its Spector 360 license expired on approximately March 28, 2011.⁷³⁶ OE Staff states that an email sent to Mr. Peter Jones prior to certifying the data response shows Coaltrain had downloaded Spector 360 data as late as July 5, 2012, two days after OE Staff specifically requested production of Spector 360 data.⁷³⁷

272. OE Staff makes a number of legal arguments in support of its finding that Coaltrain violated section 35.41(b) or in response to Coaltrain's arguments to the contrary. OE Staff contends that FPA section 316A makes it unlawful to violate any rule under Part II of the FPA, of which section 35.41(b) is a part.⁷³⁸ In addition, it states that the 2003 order adopting Market Behavior Rule 3 covers "any and all matters relevant to wholesale markets" and investigations of potential market misconduct are relevant to wholesale markets.⁷³⁹ OE Staff further notes that the Commission has already applied

⁷³³ Staff Report at 110.

⁷³⁴ *Id.* at 63.

⁷³⁵ *Id.* at 64-65.

⁷³⁶ *Id.* at 106 (citing Letter and Affidavit to Coaltrain Response to Enforcement's Fifth Data Request (Jul. 20, 2012)).

⁷³⁷ *Id.* at 106 (citing COALTRAIN011649).

⁷³⁸ *Id.* at 85.

⁷³⁹ *Id.*

section 35.41(b) to communications in investigations.⁷⁴⁰ OE Staff also argues that the federal cases Coaltrain relies on are inapplicable because they relate to whether late-produced documents should be excluded at trial, not whether an entity complied with a request to produce those documents.⁷⁴¹ Additionally, OE Staff argues that subpoena enforcement actions only apply when an entity refuses to comply with a subpoena.⁷⁴² In this case, OE Staff asserts, Coaltrain failed to acknowledge the existence of relevant documents; it did not refuse to produce them.

273. Regarding the applicability of section 35.41(b) to Coaltrain, OE Staff makes several arguments. First, Coaltrain is a seller because it had market-based rate authorization at the time of the conduct at issue.⁷⁴³ Second, the omissions and inaccurate statements were clearly material and related to the core subjects of the investigation.⁷⁴⁴ Third, it is irrelevant whether Mr. Peter Jones' data response certifications were made in good faith because section 35.41(b) only requires due diligence, and the evidence shows Coaltrain not only failed to exercise due diligence, but intentionally withheld the Spector 360 documents.⁷⁴⁵ OE Staff rejects Coaltrain's contention that retaining experienced counsel is evidence of due diligence because the Commission has previously rejected that argument.⁷⁴⁶ OE Staff asserts that counsel acts as an agent of Coaltrain, counsel cannot be expected to have a better understanding of the existence of documents than its client, and Coaltrain, not its counsel, made the false statements. Fourth, OE Staff maintains that whether OE Staff relied on the false statements and omissions is irrelevant because reliance is not a prerequisite to a finding of a violation of section 35.41(b).⁷⁴⁷ Fifth, OE Staff argues that Coaltrain's omissions were not part of a routine discovery dispute because they did not pertain to good faith objections, but rather were false and misleading

⁷⁴⁰ *Id.*

⁷⁴¹ *Id.* at 87-88.

⁷⁴² *Id.* at 86.

⁷⁴³ *Id.* at 103.

⁷⁴⁴ *Id.* at 103-104.

⁷⁴⁵ Staff Reply at 81.

⁷⁴⁶ *Id.* at 82-83 (citing *J.P. Morgan Ventures Energy Corp.*, 141 FERC ¶ 61,131, at P 42 (2012) (*JPMVEC*)).

⁷⁴⁷ *Id.* at 66-67.

statements and material omissions.⁷⁴⁸ Sixth, OE Staff denies that it had actual knowledge of Spector 360 from the *Kourouma* case.⁷⁴⁹

c. **Commission Determination**

274. The duty of accuracy and candor imposed by section 35.41(b) on regulated Sellers is particularly important when it involves an investigation by Commission staff into potential violations. Here, we find that in responding to OE Staff's investigation, Coaltrain made false and misleading statements and omitted material information to OE Staff regarding the existence of certain material evidence, thereby violating the Commission's accuracy requirement.

275. Regarding Coaltrain's arguments that section 35.41(b) does not apply to investigations, we find that investigations are part of the Commission's authority to ensure just and reasonable rates under FPA section 206—the statutory provision on which section 35.41(b) is based. False and misleading statements directly affect the Commission's ability to fulfill its statutory mandate to ensure just and reasonable rates.⁷⁵⁰ The 2003 Order that adopted Market Behavior Rule 3 (the precursor to section 35.41(b)), states that the Commission intended the section to “cover any and all matters relevant to wholesale markets,” which necessarily includes OE Staff investigations.⁷⁵¹ We agree with OE Staff that the federal cases Coaltrain relies on are inapplicable because they relate to late discovery productions under the Federal Rules of Civil Procedure, not whether an entity complied with its duty of candor in communicating with Commission staff under section 35.41(b).

276. The Commission has made clear that the obligations of section 35.41(b) apply to staff investigations. For example, the Commission has put market participants on notice of their obligation to be candid during investigations, and that it takes false or misleading statements seriously, particularly when they occur in the context of a staff investigation

⁷⁴⁸ *Id.* at 79.

⁷⁴⁹ *Id.* at 65-66.

⁷⁵⁰ *City Power*, 152 FERC ¶ 61,012 at P 218.

⁷⁵¹ *Investigation of Terms and Conditions of Pub. Util. Mkt.-Based Rate Authorizations*, 105 FERC ¶ 61,218 at P 103. “The integrity of the processes established by the Commission for open competitive markets rely on the openness and honesty of market participant communications.” *Id.* P 107.

into potentially improper conduct.⁷⁵² The Commission has long encouraged entities subject to its jurisdiction to fully and meaningfully cooperate in staff investigations.⁷⁵³ The Commission finds that the “duty of candor”—as codified in section 35.41(b) and inherent in a Commission grant of market-based rate authority to a Seller—is a duty to be forthright and fully truthful.

277. The Commission rejects Coaltrain’s argument that its failure to produce Spector 360 data is an issue of subpoena enforcement. A subpoena enforcement action arises not when an entity fails to acknowledge and reveal the existence of documents, as Coaltrain did, but when it does not produce certain documents based on a particular objection. Here, Coaltrain did not reveal the existence of the Spector 360 data and openly object to its production. Rather, it did not even acknowledge or reveal the data’s existence and withheld it from OE Staff.

278. Having found that section 35.41(b) applies to communications during investigations, we now turn to whether Coaltrain violated this provision. As an initial matter, Coaltrain had market-based rate authority and, therefore, was a “Seller” under this

⁷⁵² See, e.g., *In Re Make-Whole Payments and Related Bidding Strategies*, 144 FERC ¶ 61,068 at P 89 (“[W]e remind all persons under investigation of the importance of candor and accuracy during all stages of Market Monitor inquiries and Commission investigations.”); *Kourouma*, 135 FERC ¶ 61,245 (Order assessing civil penalty for omitting material information and submitting inaccurate information to the Commission in seeking Market-Based Rate authorization, and rejecting respondent’s characterization of his actions as “technical violations”); *In Re Edison Mission*, 123 FERC ¶ 61, 170, at P 5 (2008) (*Edison Mission*) (approving a settlement in a matter where respondent repeatedly provided incomplete or misleading statements that impeded Staff’s investigation); *JPMVEC*, 141 FERC ¶ 61,131 at PP 35-47 (suspending market-based rate authority for false and misleading statements made to the Commission in a complaint); *City Power*, 152 FERC ¶ 61,012, at P 216 (2015) (stating that the duty of accuracy and candor imposed by section 35.41(b) is particularly important when it involves a Commission staff investigation).

⁷⁵³ *Enforcement of Statutes, Orders, Rules, and Regulations*, 113 FERC ¶ 61,068, at P 2 (2005) (Policy Statement on Enforcement) (“We encourage regulated entities to . . . cooperate with the Commission in the event violations occur.”); *Enforcement of Statutes, Orders, Rules, and Regulations*, 123 FERC ¶ 61,156, at P 65 (2008) (Revised Policy Statement on Enforcement) (noting that “cooperation is expected of all entities”).

rule.⁷⁵⁴ It can be sanctioned for violating section 35.41(b) for conduct before April 15, 2011 when it terminated its market-based rate authority. While we refer to conduct below that occurred after this time, that is only as relevant evidence that not only did Coaltrain not exercise due diligence in responding to OE Staff's data requests, but it intentionally failed to produce these documents. We are not finding that statements made after April 15, 2011 are part of the violation of section 35.41(b).

279. We find that Coaltrain's false statements and omissions were clearly material. The Spector 360 documents were clearly related to the core subjects at issue in OE Staff's investigation: Coaltrain's OCL Strategy and evidence of its contemporaneous intent. Here, as in *Edison Mission*, the "violations [...] were severe and not the type of data errors or omissions that sometimes occur in investigations involving large data production," and similarly the "acts that misled staff were protracted, related to core issues under investigation, and caused extensive misallocation of resources."⁷⁵⁵

280. Unlike FPA section 222 and the Anti-Manipulation Rule, a violation of section 35.41(b) need not be the result of an intentional act.⁷⁵⁶ Rather, it is "sufficient if the false or misleading information was provided, or omission of material information was made, without due diligence exercised by the Seller."⁷⁵⁷ The section creates a good faith standard of "duty of candor," which the Commission defines as the "duty to be forthright and fully truthful"⁷⁵⁸ that goes beyond the "literal truth" defense and the bare minimum

⁷⁵⁴ Coaltrain Energy LP, Docket No. ER09-594-000 (March 31, 2009) (Delegated Letter Order Approving Application for Market-Based Rate Authority). Coaltrain had market-based rate authority until April 15, 2011. *Big Bog Energy LP*, Docket No. ER11-3358-000 (May 18, 2011) (Delegated Letter Order Approving Application for Cancellation of Market-Based Rate Authority).

⁷⁵⁵ *Edison Mission*, 123 FERC ¶ 61,170 at P 9.

⁷⁵⁶ As OE Staff has noted, the D.C. Circuit in *Kourouma* confirmed that intent to deceive is not an element of section 35.41(b). As the Court explained, "[n]ot only does the plain language of § 35.41(b) provide ample notice that FERC will enforce the Rule without requiring intent, but the Commission's prior public statements regarding § 35.41(b) confirm the point as well." *Kourouma*, 723 F.3d at 279 (stating that FERC rejected the option of adding an express intent requirement to § 35.41(b)).

⁷⁵⁷ *City Power*, 152 FERC ¶ 61,012 at P 217.

⁷⁵⁸ *Id.* P 218.

needed to avoid criminal perjury liability.⁷⁵⁹ Moreover, Coaltrain's argument to the contrary is not relevant here because we find that its actions to withhold the data were intentional, as described below.

281. Coaltrain cannot shed liability for failing to exercise due diligence by relying on counsel. As the Commission stated in *JPMVEC*, retaining qualified counsel does not constitute sufficient due diligence.⁷⁶⁰ In adopting section 35.41(b), the Commission made clear that “[t]he submission of false or incomplete information on behalf of a seller by an individual that did not personally know it to be false or incomplete in the absence of a process to insure data accuracy and sufficiency will not excuse the seller’s conduct under this rule.”⁷⁶¹

282. Further, section 35.41(b) applies to all false and misleading statements and material omissions regardless of whether the deception was successful or was relied upon.⁷⁶² Moreover, we disagree with Coaltrain’s contentions that the Spector 360 documents are exculpatory.⁷⁶³ More important, whether they are exculpatory is not the issue. They were relevant to OE Staff’s investigation and were covered by the language of OE Staff’s data requests.

283. In addition, the Commission rejects Coaltrain’s argument that OE Staff had actual knowledge of Spector 360 by virtue of the *Kourouma* case or that actual knowledge would exculpate Coaltrain from its section 35.41(b) violations. OE Staff is not obligated to review the record in other proceedings to gain knowledge that would provide potentially relevant information. It is Coaltrain’s obligation to review all information in its possession and produce relevant material to OE Staff.

284. Furthermore, we do not find it credible that Coaltrain simply overlooked or forgot about Spector 360. OE Staff presents sufficient evidence indicating that Coaltrain was cognizant of Spector 360 during the time it was responding to OE Staff’s data requests.

⁷⁵⁹ *Id.*

⁷⁶⁰ *JPMVEC*, 141 FERC ¶ 61,131 at P 42.

⁷⁶¹ *Investigation of Terms and Conditions of Pub. Util. Mkt.-Based Rate Authorizations*, 105 FERC ¶ 61,218 at P 110.

⁷⁶² *Kourouma*, 723 F.3d at 278.

⁷⁶³ Answer of Coaltrain and Individual Respondents at 71.

For example, it used the software to terminate an employee in 2010.⁷⁶⁴ It renewed its license shortly after receiving OE Staff's Second Data Request. On November 19, 2010, after receiving OE Staff's Second Data Request dated November 5, 2010, Mr. Hughes emailed Messrs. Peter Jones and Sheehan "to let [them] know that [he] logged into Spector this morning to view the activity on the computer in the team room."⁷⁶⁵ In addition, Mr. Hughes, who was responsible in part for responding to OE Staff's data requests, communicated with Spector 360 support staff in January 2011.⁷⁶⁶ Coaltrain paid thousands of dollars for annual licenses for Spector 360 and received updates through January 2011. The software caused technical issues,⁷⁶⁷ which required communications with Spector 360, including on 14 occasions during the time Coaltrain was responding to the First and Second Data Requests (between August 2010 and January 2011). After Messrs. Peter Jones and Sheehan ended their partnership in Spring 2011 (after completing OE Staff's Second Data Request), both employed computer monitoring programs at their new offices. Mr. Hughes, the IT employee who followed Mr. Sheehan to his new company, helped coordinate the backup and migration of Spector 360 data.⁷⁶⁸

285. Additionally, we find that Coaltrain resisted producing Spector 360 data even after its existence was identified by OE Staff. After OE Staff specifically requested Spector 360 in the Fifth Data Request issued on July 3, 2012, Coaltrain represented that it was unable to access it because its license expired on approximately March 28, 2011.⁷⁶⁹ However, a July 5, 2012 email sent to Mr. Peter Jones prior to certifying the data response shows Coaltrain had downloaded Spector 360 data:

⁷⁶⁴ See COALTRAIN000812 (June 2010 Delaware Department of Labor form in which Mr. Peter Jones justified termination of employee based on information he learned from Spector 360 software); Sheehan Test. Vol. I Tr. 85:19-86:2.

⁷⁶⁵ COALTRAIN0011640.

⁷⁶⁶ SpectorSoft0002-0003.

⁷⁶⁷ COALTRAIN007150.

⁷⁶⁸ Hughes Test. Tr. 238:24-240:17; Sheehan Test. Vol. I Tr. 36:11-15, 40:21-24, 43:13-20). See also Second Amended Complaint at ¶ 17, ECF No. 18, *XO Energy LLC v. Zhao*, No. 4:15-CV-00599 (S.D. Tex. April 5, 2015) (using a computer monitoring program in an action against a former employee).

⁷⁶⁹ Letter and Affidavit to Coaltrain Resp. to Enforcement Fifth Data Request (Jul. 20, 2012).

I have the screens and about half the exported data stored on \\medusa\q\$\FERC <%5C%5Cmedusa%5Cq\$%5CFERC> (If you cut and paste that into your file explorer, it will display the directory). Inside the Spector Export directory you will see data stored in Excel Spreadsheets based upon type.. It is taking a while to export, so as they finish, I will be moving them over⁷⁷⁰

Thus, regardless of the status of its license, Coaltrain had exported Spector 360 data as late as July 5, 2012—two days after receiving OE Staff’s data request—but failed to produce that information.⁷⁷¹

286. We find that Coaltrain’s representations regarding the Spector 360 documents were intentionally misleading, thereby unnecessarily wasting Commission resources in addition to violating its duty of candor and accuracy. Based on the totality of the circumstances here, we find it is not plausible that these statements and omissions were merely inadvertent oversights or document collection errors. Coaltrain understood that OE Staff sought—several times over the course of the investigation—to review all documents related to UTC trading. Coaltrain should have meaningfully complied with OE Staff’s requests. We emphasize that subjects of Commission investigations do not have the discretion to decide what evidence (or how much of it) is relevant.⁷⁷²

287. Regarding Coaltrain’s argument that the Commission lacks authority to impose penalties for Coaltrain’s section 35.41(b) violations,⁷⁷³ we find that this argument

⁷⁷⁰ COALTRAIN011649 (email dated July 5, 2012 to Peter Jones regarding Spector 360 data confirming they had access to the data).

⁷⁷¹ The Commission is not treating this July 2012 representation as a separate violation because it occurred after the cancellation of Coaltrain’s Market-Based Rate Authority. However, it is evidence that Coaltrain had intended not to acknowledge the existence of and produce Spector 360 data since OE Staff first asked for data.

⁷⁷² The Commission’s regulations broadly authorize OE Staff in formal investigations to “administer oaths and affirmations, subpoena witnesses, compel their attendance, take evidence, and require the production of any books, papers, correspondence, memoranda, contracts, agreements or other records relevant or material to the investigation.” 18 C.F.R. § 1b.13 (2015).

⁷⁷³ Answers of Coaltrain and Individual Respondents at 79.

ignores the plain language of FPA section 316A(b). The Commission's penalty authority under section 316A extends to violations of section 35.41(b). FPA section 316A(b) states that "[a]ny person who violates any provision of subchapter II of this chapter or any provision of any rule or order thereunder shall be subject to a civil penalty of not more than \$1,000,000 for each day that such violation continues."⁷⁷⁴ Section 35.41(b) of the Commission's regulations is a rule implemented under FPA section 206,⁷⁷⁵ which is a provision under subchapter II of the FPA.⁷⁷⁶ Thus, the Commission's penalty authority under section 316A extends to violations of section 35.41(b). Moreover, the United States Court of Appeals for the District of Columbia Circuit has upheld a Commission-imposed penalty for a violation of section 35.41(b).⁷⁷⁷

C. Remedies and Sanctions

288. Having concluded that Respondents, in connection with jurisdictional UTC transactions and associated transmission services, intentionally or knowingly devised and participated in a coordinated scheme to manipulate and a course of business to defraud PJM's wholesale power market in violation of FPA section 222 and the Anti-Manipulation Rule, and that Coaltrain violated section 35.41(b) of the Commission's regulations by making false and misleading statements and material omissions related to the existence of Spector 360 data, we now must determine the appropriate remedies to assess. OE Staff recommends both civil penalties and disgorgement. After assessing the legal and factual issues, including those raised by Respondents, and "tak[ing] into consideration the seriousness of the violation[s] and the efforts of such person[s] to remedy the violation[s] in a timely manner,"⁷⁷⁸ we agree that penalties and disgorgement are appropriate, as described below.

1. Penalties

289. Pursuant to FPA section 316A(b), the Commission may assess a civil penalty of up to \$1 million per day, per violation against any person who violates Part II of the FPA

⁷⁷⁴ 16 U.S.C. § 825o-1(b) (2012).

⁷⁷⁵ See *Market-Based Rates for Wholesale Sales of Electric Energy, Capacity, and Ancillary Services by Public Utilities*, Order No. 697, 119 FERC ¶ 61,295 (2007).

⁷⁷⁶ See 16 U.S.C. § 825e (2012).

⁷⁷⁷ See *Kourouma*, 723 F.3d 274.

⁷⁷⁸ 16 U.S.C. § 825o-1(b) (2012).

(including section 222 of the FPA) or any rule or order thereunder.⁷⁷⁹ Respondents executed the OCL Trades on 64 days between June 15, 2010 and September 15, 2010.⁷⁸⁰ Thus, even at a rate of one violation per day—an underestimation of the total amount of violations committed—we have the statutory authority to assess penalties of up to \$64 million against each Respondent.

290. In determining an appropriate penalty amount within the statutory maximum, FPA section 316A(b) requires the Commission to consider “the seriousness of the violation and the efforts of such person to remedy the violation in a timely manner.”⁷⁸¹ Although the Penalty Guidelines are not mandatory—and do not apply to individuals—the Commission typically uses them and its Policy Statements on Enforcement,⁷⁸² to calculate penalties for organizations, such as Coaltrain.⁷⁸³

291. However, the Penalty Guidelines state that there are several exceptions when the Commission does not apply the various formulas in them to calculate a penalty, and, instead, “determine[s] penalties based on the individual facts and circumstances.”⁷⁸⁴ The Commission created the exceptions to the Penalty Guidelines’ formulaic approach by

⁷⁷⁹ *Id.*

⁷⁸⁰ See COALTRAIN011540.

⁷⁸¹ 16 U.S.C. § 825o-1(b) (2012).

⁷⁸² Revised Policy Statement on Enforcement, 123 FERC ¶ 61,156; Policy Statement on Enforcement, 113 FERC ¶ 61,068.

⁷⁸³ See *Enforcement of Statutes, Orders, Rules, and Regulations*, 132 FERC ¶ 61,216 (2010) (Revised Policy Statement on Penalty Guidelines); *Enforcement of Statutes, Orders, Rules, and Regulations*, 130 FERC ¶ 61,220 (2010) (Initial Policy Statement on Penalty Guidelines). See also *Chen*, 151 FERC ¶ 61,179 at P 151; *City Power*, 152 FERC ¶ 61,012 at P 226. The Commission stated when issuing its Initial Policy Statement on Penalty Guidelines that it will continue to rely on factors identified in its previous policy statements on enforcement and policy statement on compliance to measure the seriousness of violations and timely efforts to remedy violations. The Commission noted that any conflict will be resolved in favor of the Penalty Guidelines. Initial Policy Statement on Penalty Guidelines, 130 FERC ¶ 61,220 at P 63. The Penalty Guidelines are appended to the Revised Policy Statement on Penalty Guidelines.

⁷⁸⁴ Initial Policy Statement on Penalty Guidelines, 130 FERC ¶ 61,220 at P 32 (citing FERC Penalty Guidelines §§ 1A1.1, 1C2.1(b)).

design, recognizing that a “guidelines approach provides less flexibility and discretion than a more generalized approach [and] always creates the possibility of outcomes not adequately accounting for all of the specifics of a case.”⁷⁸⁵ Two such exceptions apply to this matter.

292. First, pursuant to section 1C2.1(b) of the Penalty Guidelines, the Commission determines penalties on a case-by-case basis “[w]here there are multiple violations falling under different Chapter Two guidelines.”⁷⁸⁶ Coaltrain’s violations fall under Penalty Guidelines section 2B1.1, which is the Chapter Two guideline that includes fraud and tariff violations, and, separately, under Penalty Guidelines section 2C1.1, which is the Chapter Two guideline covering intentional misrepresentations and false statements.⁷⁸⁷ Thus, instead of calculating a penalty for Coaltrain using the formulas in the Penalty Guidelines, we will determine an appropriate penalty on a case-by-case basis and will consider all the facts and circumstances, including the factors from our Revised Policy Statement on Enforcement, to guide this analysis.⁷⁸⁸ To be clear, this approach is not a departure from the Penalty Guidelines because the plain language of the guidelines provides for it.⁷⁸⁹ The Commission followed this same approach in calculating a penalty

⁷⁸⁵ *Id.*

⁷⁸⁶ FERC Penalty Guidelines § 1C2.1(b). The Penalty Guidelines contain three Chapter Two guidelines: Section 2A1.1 (Guideline for Violations of Commission-Approved Reliability Standards); Section 2B1.1 (Guideline for Fraud, Anti-Competitive Conduct and Other Rule, Tariff and Order Violations); and Section 2C1.1 (Guideline for Intentional or Reckless Misrepresentations and False Statements to the Commission or Commission Staff).

⁷⁸⁷ Intent is not required to establish a violation of section 35.41(b). However, because we find that Coaltrain’s false statements to OE Staff related to Spector 360 data were intentional, we hold that the Chapter Two guideline for intentional misrepresentations and false statements applies here. If we had not found Coaltrain’s section 35.41(b) violations intentional, then this matter would not have involved violations falling under multiple Chapter Two guidelines and the penalty would have been determined under the Penalty Guidelines’ formulaic approach.

⁷⁸⁸ The Commission’s penalty assessment against Coaltrain under this approach results in a smaller penalty than if the Commission were to use the formulas in the Penalty Guidelines for both types of violations and combine the results. *See infra* PP 326-328.

⁷⁸⁹ FERC Penalty Guidelines § 1C2.1(b).

in *City Power*, which also involved violations falling under both Penalty Guidelines section 2B1.1 and section 2C1.1.⁷⁹⁰

293. Second, pursuant to section 1A1.1, Application Note 1 of the Penalty Guidelines, the Commission determines penalties “for natural persons based on the facts and circumstances of the violation but will look to [the Penalty Guidelines] for guidance in setting those penalties.”⁷⁹¹ Therefore, we also will determine the individual Respondents’ penalties on a case-by-case basis, guided by factors in the Revised Policy Statement on Enforcement. Similar to our handling of the multiple violations, this case-by-case approach for the individual Respondents is not a departure from the Penalty Guidelines because the guidelines dictate this result.

294. Thus, the Commission will not determine penalties in this matter through application of the formulas contained in the Penalty Guidelines. Instead, we will apply Penalty Guidelines sections 1C2.1(b) and 1A1.1, Application Note 1, and determine an appropriate penalty for Coaltrain and the individual Respondents based on the individual facts and circumstances. To determine an appropriate penalty under this case-by-case basis, we will consider the following five factors from our Revised Policy Statement on Enforcement: (i) seriousness of the violation; (ii) commitment to compliance; (iii) self-reporting, (iv) cooperation; and (v) reliance on OE Staff guidance.⁷⁹²

a. Assessment of Civil Penalty Against Coaltrain
i. Respondents’ Answers⁷⁹³

295. As an initial matter, Respondents argue that the Commission lacks statutory authority to assess a penalty for market manipulation because OE Staff’s theory of

⁷⁹⁰ *City Power*, 152 FERC ¶ 61,012 at PP 227, 234-260.

⁷⁹¹ FERC Penalty Guidelines § 1A1.1, Application Note 1.

⁷⁹² See Revised Policy Statement on Enforcement, 123 FERC ¶ 61,156 at PP 54-71; *Kourouma*, 135 FERC ¶ 61,245 at P 42 (analyzing factors from Revised Policy Statement on Enforcement to determine appropriate penalty for individual).

⁷⁹³ While this section relates to Coaltrain’s penalty assessment, the arguments addressed here were raised generally by Coaltrain and the individual Respondents and apply to the Commission’s penalty assessments for all Respondents. We will address arguments specifically applicable to the individual Respondents in the sections, below, addressing their penalty assessments.

manipulation is inconsistent with the FPA and Commission orders on MLSA allocation.⁷⁹⁴ Similarly, Respondents assert that the Commission lacks statutory authority to assess a penalty against Coaltrain for a section 35.41(b) violation, arguing that this regulation was promulgated under FPA section 206, which, it contends, does not authorize the Commission to assess civil penalties.⁷⁹⁵ In addition, Respondents argue that their trades did not cause any market harm because other market participants were not entitled to any particular amount of MLSA and because OE Staff's theory of market harm relies on a "but for construction" that "assumes all market outcomes would have been identical but for Coaltrain's activities."⁷⁹⁶ Respondents also argue that their trades did not deprive other market participants of transmission capacity because their trades were financial, they did not actually consume the transmission, and PJM periodically replenishes transmission capacity.⁷⁹⁷

296. Further, Messrs. Peter Jones and Sheehan argue that they should not be held jointly and severally liable for Coaltrain's penalty. Mr. Peter Jones argues that the Commission does not have the authority under the FPA to assess joint and several liability and that, even if it had such authority, OE Staff has not proved that applying joint and several liability is appropriate in this matter.⁷⁹⁸ Moreover, he argues that even if the Commission had such authority, OE Staff has failed to show why joint and several liability is appropriate in this case.⁷⁹⁹ To this point, he points out that the \$33 million he withdrew from Coaltrain after the start of OE Staff's investigation was used to "repay capital and pay expenses of the company."⁸⁰⁰ Similarly, Mr. Sheehan argues that the Commission should reject OE Staff's request to hold him jointly and severally liable for Coaltrain's civil penalty because: (i) the FPA does not authorize joint and several liability; (ii) the contributions of Coaltrain, Mr. Peter Jones, and Mr. Sheehan to the alleged violations can be apportioned and distinguished; and (iii) there is no broad authority granting the Commission the ability to disregard the corporate form to impose

⁷⁹⁴ See Answer of Coaltrain and Individual Respondents at 16-17.

⁷⁹⁵ See *id.*

⁷⁹⁶ See *id.*

⁷⁹⁷ See *id.*

⁷⁹⁸ Answer of P. Jones, R. Jones, and Wells at 30.

⁷⁹⁹ *Id.* at 30-31.

⁸⁰⁰ *Id.* at 30.

civil penalties jointly and severally.⁸⁰¹ Mr. Sheehan also argues that it would be inappropriate to hold him and Mr. Peter Jones jointly and severally liable for a penalty amount that encompasses the section 35.41(b) violation because this regulation applies only to “Sellers,” not individual respondents.⁸⁰²

ii. OE Staff Report and Reply

297. OE Staff recommends a civil penalty of \$26 million against Coaltrain.⁸⁰³ Recognizing that the Penalty Guidelines do not apply to Coaltrain’s multiple types of violations, OE Staff’s recommendation is based on the following factors from the Commission’s Revised Policy Statement on Enforcement: (i) seriousness of the violation; (ii) commitment to compliance; (iii) self-reporting, (iv) cooperation; and (v) reliance on OE Staff guidance.⁸⁰⁴

298. Regarding the first factor, OE Staff argues that Coaltrain’s fraudulent OCL Strategy was very serious because it: (i) harmed identifiable market participants, who did not receive MLSA payments they would have received absent Coaltrain’s conduct; (ii) deceived and operated as a fraud on PJM by creating the false impression that Coaltrain was trading to arbitrage price spreads; (iii) was willful because Coaltrain knew it conflicted with the purpose of UTC trading in PJM; (iv) continued for ten weeks, including four weeks after Coaltrain knew it was wrongful; and (v) was devised and executed by Coaltrain’s senior management, Messrs. Peter Jones and Sheehan.⁸⁰⁵ In addition, OE Staff argues that Coaltrain’s section 35.41(b) violations were very serious because they: (i) caused harm by obstructing OE Staff’s efforts to investigate Coaltrain’s conduct; (ii) deceived OE Staff by trying to hide relevant materials; (iii) were willful; (iv) continued for more than two years; and (v) were carried out by senior management, who falsely signed affidavits verifying the completion of Coaltrain’s discovery responses.⁸⁰⁶

⁸⁰¹ Answer of Sheehan, Miller, and Hughes at 21-27, 29-31.

⁸⁰² *Id.* at 31-32.

⁸⁰³ Staff Report at 122.

⁸⁰⁴ *Id.* at 119 (citations and quotations omitted).

⁸⁰⁵ *Id.* at 120-121.

⁸⁰⁶ *Id.* at 121-122. OE Staff disputes Coaltrain’s argument that the Commission cannot impose penalties for violations of section 35.41(b), stating that FPA section 316A

299. Regarding the remaining four factors, OE Staff claims that Coaltrain did not have an adequate compliance program or take steps to remedy its violations, did not self-report its violations, did not cooperate, and did not seek staff's guidance.⁸⁰⁷

300. In response to Coaltrain's argument that its OCL Strategy did not cause any market harm, OE Staff claims that Coaltrain's expert, Dr. Lesser, has a "fundamental misunderstanding of how MLSA works," and that PJM does not have to rerun the market to determine MLSA distribution.⁸⁰⁸ OE Staff maintains that "MLSA simply reflects the surplus of loss payments collected by PJM that have to be redistributed," and that "removing Coaltrain's OCL trades from the loss surplus pool means that there would have been more money to distribute to the remaining market participants."⁸⁰⁹

301. Based on the foregoing factors, OE Staff recommends a \$26 million penalty against Coaltrain. In addition, OE Staff argues that the Commission should assess this penalty jointly and severally against Messrs. Peter Jones and Sheehan, Coaltrain's co-owners.⁸¹⁰ OE Staff argues that joint and several liability against Messrs. Peter Jones and Sheehan is critical because they have rendered Coaltrain defunct by removing more than \$33 million from Coaltrain's accounts after the start of OE Staff's investigation.⁸¹¹

authorizes penalties for violations of rules issued under FPA Part II, including section 35.41(b), and that the regulation covers "any and all matters relevant to wholesale markets." Staff Reply at 85 (citations and internal quotations omitted).

⁸⁰⁷ Staff Report at 122.

⁸⁰⁸ Staff Reply at 58.

⁸⁰⁹ *Id.* OE Staff also disputes Respondents' argument that their OCL trades did not deprive others of transmission. Specifically, OE Staff states that market participants cannot schedule transactions in the day-ahead market if there is insufficient transmission at a given time and that while PJM replenishes transmission capacity in the real-time, it does not become available immediately. *See id.* at 60.

⁸¹⁰ Staff Report at 123; Staff Reply at 91-93.

⁸¹¹ Staff Report at 123, n.510.

iii. Commission Determination

(a) Seriousness of the Violation

302. The Commission's Revised Policy Statement on Enforcement identifies several factors to consider in our analysis of the seriousness of the violations under the FPA.⁸¹² We discuss these factors below to the extent that they are relevant to Coaltrain's conduct. We first address the seriousness of Coaltrain's OCL Strategy, followed by a discussion of the seriousness of its false and misleading statements related to the Spector 360 data.

(1) Seriousness of OCL Trade Violations

303. *Harm Caused by the Violations.* Coaltrain's OCL Strategy caused significant harm to other PJM market participants in two principal ways. First, as was the case in *Chen* and *City Power*, identifiable market participants were harmed by Coaltrain's scheme because "they did not receive the MLSA payments they would have received absent Respondents' unlawful ... UTC trades, as provided for under the then-effective PJM Tariff's MLSA provision."⁸¹³ Coaltrain received more than \$8 million in MLSA payments as a result of its OCL Trades, and these payments would have gone to other market participants, absent Respondents' scheme.⁸¹⁴ In fact, PJM has identified close to 400 market participants that were adversely affected by Coaltrain's scheme.⁸¹⁵

304. We reject Coaltrain's arguments that other market participants were not entitled to these MLSA payments. As we noted in *City Power*, "[w]hile we have stated in the abstract that no market participant is entitled to a particular amount of MLSA payments and that PJM need not adopt a particular refund mechanism,"⁸¹⁶ PJM nevertheless filed a MLSA provision that later became effective as part of PJM's Commission-approved

⁸¹² See Revised Policy Statement on Enforcement, 123 FERC ¶ 61,156 at PP 55-56.

⁸¹³ *Chen*, 151 FERC ¶ 61,179 at P 98; *City Power*, 152 FERC ¶ 61,012 at P 161.

⁸¹⁴ See Coaltrain and PJM Data.

⁸¹⁵ See PJM Response to Enforcement's Jan. 23, 2015 Data Request, MLSA Account Level Summary Related to COALTR Removal Simulation.xlsx (Jan. 28, 2015).

⁸¹⁶ *City Power*, 152 FERC ¶ 61,012 at P 163 (citations and internal quotations omitted).

tariff.⁸¹⁷ Under the PJM Tariff's MLSA provision effective during the Manipulation Period, market participants who paid for transmission service for their transactions were entitled to receive the sum of MLSA payments established by the provision's Commission-approved hourly calculation. As a result of Respondents' fraudulent conduct, other market participants did not receive as much MLSA as they would have received absent the conduct.

305. We also reject Respondents' criticisms of the method of calculating the harm and redistribution. Specifically, Respondents appear to suggest that any analysis must be far more complicated than OE Staff's approach to calculating market harm in order to be valid and that a more complicated analyses would be "virtually impossible."⁸¹⁸ We found in *Chen* and *City Power* that market participants were harmed by the diversion of MLSA payments due to the fraudulent transactions and we make the same finding here.⁸¹⁹ If it is the redistribution that Respondents fault, we do not believe they have standing to challenge this because they are not affected by the redistribution. If instead they suggest that there is no method to calculate with precision the correct disgorgement amount, we reject that argument. A reasonable estimate of harm is all that is required.⁸²⁰ We find the preliminary calculation made by PJM and the preliminary method of redistribution suggested by OE Staff to be reasonable. While the preliminary calculation includes redistribution of Coaltrain's unjust profits to the respondents in *Chen* and *City Power*, this is simply a reflection of the preliminary nature of the analysis at this time.

⁸¹⁷ *Id.* (citations and internal quotations omitted).

⁸¹⁸ Answer of Coaltrain and Individual Respondents at 63-65; Lesser Report at PP 232-236.

⁸¹⁹ *Chen*, 151 FERC ¶ 61,179 at P 98; *City Power*, 152 FERC ¶ 61,012 at P 161.

⁸²⁰ See *SEC v. First City Fin. Corp., Ltd.*, 890 F.2d 1215, 1231 (D.C. Cir. 1989) ("Rules for calculating disgorgement must recognize that separating legal from illegal profits exactly may at times be a near-impossible task."); *SEC v. Calvo*, 378 F.3d 1211, 1217 (11th Cir. 2004) ("The SEC is entitled to disgorgement upon producing a reasonable approximation of a defendant's ill-gotten gains." (citation omitted)). Cf. *SEC v. Happ*, 392 F.3d 12, 31 (1st Cir. 2004) (holding that when calculating disgorgement, "doubts are to be resolved against the defrauding party" (citation and internal quotations omitted)). See also FERC Penalty Guidelines at § 2B1.1(b)(1), Application Notes 2(B) & (C). Moreover, the precise amount of market harm is not necessary or determinative for the Commission's penalty determination and assessment. Indeed, the Commission has the authority to assess penalties of up to \$1 million per day, per violation irrespective of the market harm.

When the fraudulent UTC matters⁸²¹ have proceeded through any post-Commission processes elected by the various respondents under FPA section 31, a revised redistribution calculation may be applied to the resulting disgorgement figure in this matter.

306. Second, Coaltrain's OCL Trades caused harm to other PJM market participants by reducing the availability of transmission in PJM and Respondents' arguments to the contrary are wrong. Coaltrain reserved more than 4.6 million MWh of transmission service in connection with its OCL Trades.⁸²² Therefore, similar to the schemes in *Chen* and *City Power*, Coaltrain's OCL Strategy "impacted the availability of transmission from the time they reserved this transmission service until the time it was released for other market participants' use in the real-time market."⁸²³

307. We reject Respondents' argument that they did not impact the availability of transmission when they pursued fraudulent OCL Trades.⁸²⁴ While Respondents suggest that UTC transactions do not impact real-time market demand and therefore do not impact transmission or generation, this does not present a full factual picture of a UTC transaction. UTC transactions are placed for the day-ahead market and are perfected in the real-time market. Respondents reserved paid transmission for their OCL Trades in order to pursue their scheme to garner MLSA payments. The reservation of that transmission for the fraudulent purpose of placing these trades deprived other financial and physical traders from using that transmission from the time it was reserved by Respondents until the time it was released by PJM.

308. While Respondents suggest that the Commission should focus on whether transmission was ultimately consumed by Respondents' OCL Trades,⁸²⁵ we decline to do

⁸²¹ We include therein *Chen*, 151 FERC ¶ 61,179; *City Power*, 152 FERC ¶ 61,012, and this matter.

⁸²² See Coaltrain and PJM Data.

⁸²³ PJM OASIS, Regional Transmission and Energy Scheduling Practices, Version 14 (July 15, 2009), available at <http://www.pjm.com/~media/committeesgroups/committees/mic/20090611/20090611-item-05b-regional-practices1.ashx>; *City Power*, 152 FERC ¶ 61,012 at P 235; *Chen*, 151 FERC ¶ 61,179 at P 99.

⁸²⁴ Answer of Coaltrain and Individual Respondents at 65-66, Lesser Report at PP 237-242.

⁸²⁵ Answer of Coaltrain and Individual Respondents at 66; Lesser Report at P 240.

so. Respondents admit that the transmission was removed from ATC,⁸²⁶ but focus on the time after the transmission was released stating “any market participant could have purchased transmission capacity when it was re-released by PJM.”⁸²⁷ This argument ignores the fact that transmission was unavailable until it was released.

309. Nor do we find persuasive Respondents’ suggestion that if other traders had simply “overscheduled” like Respondents did, no one would have lacked transmission.⁸²⁸ There was no duty or requirement that other UTC traders “overschedule” transmission. We find equally unpersuasive the notion that as Respondents reserved only non-firm transmission, other market participants could have reserved firm transmission if they needed it.⁸²⁹ Firm transmission during the Manipulation Period cost at least \$2.17 per MWh while non-firm transmission cost \$0.67 per MWh.⁸³⁰ Therefore, it is untenable to suggest that one could be fully substituted for the other. Finally, Respondents’ argument that the OASIS rules did not limit the amount of transmission Respondents could reserve misses the point: these transactions were fraudulent; the transmission was thus unnecessarily reserved and those reservations harmed other market participants.⁸³¹

310. *Manipulation, Deceit, Fraud, and Recklessness or Indifference to Results of Actions.* Coaltrain’s OCL Trades operated as a fraud and deceit on PJM. Specifically, Coaltrain deceived PJM into disbursing MLSA payments by creating the false impression that it was trading to arbitrage price spreads when, in fact, it was trading solely or primarily for the purpose of amassing MLSA payments that otherwise would have been distributed to other market participants.⁸³²

⁸²⁶ Answer of Coaltrain and Individual Respondents at 66; Lesser Report at P 239 (citing P. Jones Test. Vol. II Tr. 80:4-82:1).

⁸²⁷ Answer of Coaltrain and Individual Respondents at 66; Lesser Report at PP 237, 240.

⁸²⁸ Answer of Coaltrain and Individual Respondents at 66.

⁸²⁹ Lesser Report at P 238.

⁸³⁰ IMM Referral at 2.

⁸³¹ Answer of Coaltrain and Individual Respondents at 66.

⁸³² See *Chen*, 151 FERC ¶ 61,179 at P 182; *City Power*, 152 FERC ¶ 61,012 at P 236. See also *supra* PP 144, 168, 193.

311. *Willful Action or in Concert with Others.* Coaltrain's OCL Strategy was willful. It understood that the purpose of UTC trading in PJM was to arbitrage price differentials, yet it designed and implemented a scheme to try to eliminate any price differentials and profit solely or primarily from the collection of MLSA payments.⁸³³

312. *Isolated Instance or Recurring Problem; Systematic and Persistent Wrongdoing and Duration.* Coaltrain executed the OCL Strategy for more than two-and-a-half months. When the IMM raised concerns about the SouthImp-Exp OCL Trades, Coaltrain continued making the same types of trades on the NCMPAImp-Exp path. And when the IMM raised concerns with the NCMPAImp-Exp OCL Trades, Coaltrain simply moved back to the Other OCL Trades on 28 of the 38 different paths. In fact, Coaltrain continued its OCL Strategy even after PJM sought to amend its tariff to prevent schemes that targeted MLSA payments.

313. *Was the Wrongdoing Related to Actions by Senior Management and Did Management Engage in a Cover-up.* Messrs. Peter Jones and Sheehan, co-owners of Coaltrain, played integral roles designing and implementing the OCL Strategy on behalf of Coaltrain. For example, on June 10, 2010, Mr. Sheehan strategized with Mr. Miller about the best ways to profit from the OCL Strategy. He told Mr. Miller, "I guess the ocl strategy alone would work better for days when there isn't much congestion expected da.... At least all of the ocl strategies ive looked at will all price out with strong comed constraints."⁸³⁴ Similarly, on June 10, 2010, Mr. Peter Jones advised Mr. Miller about a particular path, explaining, "average peak losses have been around a bit above 1.50 (depending upon month) and I would expect June losses to be up a bit given higher loads."⁸³⁵

⁸³³ See *Chen*, 151 FERC ¶ 61,179 at P 183; *City Power*, 152 FERC ¶ 61,012 at P 237.

⁸³⁴ Miller Spector 360 Chat IM (June 10, 2010, 9:34 AM).

⁸³⁵ P. Jones Test. Vol. II Ex. 5. Mr. Peter Jones also discussed ideas for Coaltrain's new OCL Strategy with Mr. Sheehan on June 5, 2010. During this conversation, Mr. Sheehan explained that a certain UTC trade "get[s] losses which have been 1-1.5 lately [which] means its free trade." *Id.* Ex. 12.

314. Messrs. Peter Jones and Sheehan also executed⁸³⁶ and approved the OCL Trades.⁸³⁷ Thus, throughout the two-and-a-half month period, Messrs. Peter Jones and Sheehan were involved in all aspects of the OCL Strategy, from the design and implementation of the scheme to execution and approval of the individual trades.

315. Moreover, Mr. Peter Jones was also involved in Coaltrain's attempt to cover-up the scheme, through misrepresentations to the IMM and efforts to not produce relevant information to OE Staff. For example, as discussed above, when questioned about Respondents' SouthImp-Exp OCL Trades, Mr. Peter Jones misled the IMM about the purpose of such trades, stating "[a]t the time we saw price deltas in the day ahead and in the real time, and just didn't have the knowledge that that was actually an incorrect signal."⁸³⁸ Also, Mr. Peter Jones signed the affidavits, falsely attesting to the truth of Coaltrain's data responses that failed to produce or mention the existence of the Spector 360 data.

316. In sum, a review of each of the foregoing seriousness factors reveals that Coaltrain's OCL Strategy was very serious. The violations resulted in substantial financial harm to other market participants, were fraudulent and willful, persisted for more than two-and-a-half-months, and involved direct participation by senior management, which also attempted to cover up the conduct. These actions warrant a significant penalty.

(2) **Seriousness of False Statement Violations**

317. *Harm Caused by the Violations.* Coaltrain caused harm by thwarting OE Staff's efforts to investigate the relevant conduct. Coaltrain obstructed OE Staff's investigative efforts by failing to reveal the existence of and produce relevant data in the form of the Spector 360 materials, which contained a wealth of information, including contemporaneous communications about the OCL Strategy. These violations caused OE

⁸³⁶ See COALTRAIN003512-3519; COALTRAIN011540.

⁸³⁷ See, e.g., Wells Test. Ex. 87 (Mr. Peter Jones approving Mr. Wells' "OCL play" proposed trade, and advising, "good for this for 100 scaling up to see what happens with prices"); *id.* Ex. 69 (Mr. Sheehan approving "OCL play" recommended by Mr. Wells).

⁸³⁸ COALTRAIN011541 (Aug. 6, 2010, voice recording at 6:19-6:54).

Staff to waste valuable time and resources during its investigative process. We consider this type of harm as an aggravating factor in our penalty determinations.⁸³⁹

318. *Manipulation, Deceit, Fraud, and Recklessness or Indifference to Results of Actions.* Coaltrain made false statements and omitted material facts in its data responses about relevant information and materials in the Spector 360 data in an effort to hide such data from OE Staff.⁸⁴⁰ Such efforts were deceitful, reckless, and indifferent to the results of such actions.⁸⁴¹

319. *Willful Action or in Concert with Others.* Coaltrain's false and misleading statements and material omissions regarding the existence of Spector 360 data were willful. Coaltrain represented to OE Staff that its data and document productions were "true, complete, and accurate," yet it knowingly failed to produce relevant materials stored by Spector 360, including IMs, emails, and spreadsheets relevant to Coaltrain's UTC trading generally and OCL Strategy specifically. Then, once OE Staff learned of Spector 360 and asked for such materials, Coaltrain falsely claimed that it could not access the software program when, in fact, it had been accessing the program and storing its contents on Coaltrain's computers.⁸⁴²

320. *Isolated Instance or Recurring Problem; Systematic and Persistent Wrongdoing and Duration.* As described above, Coaltrain's false and misleading statements and material omissions regarding the existence of Spector 360 data were not isolated, but, rather, were systematic. And, when OE Staff finally learned through their own efforts of the Spector 360 data, Coaltrain then made up more fabrications, claiming that it could not access the Spector 360 materials.

⁸³⁹ See Revised Policy Statement on Enforcement, 123 FERC ¶ 61,156 at P 68 ("[E]ngaging in obstructionist conduct may be viewed as an aggravating factor in determining the amount of a civil penalty. Obstructionist conduct in an investigation can include, among other things: misrepresentation, persistent delays in responding to information requests, or frivolous objections to information requests."); *Edison Mission*, 123 FERC ¶ 61,170 at P 9 (considering that Edison Mission's "acts that misled staff were protracted, related to core issues under investigation, and caused extensive misallocation of resources").

⁸⁴⁰ See *supra* section III.B.2.

⁸⁴¹ See *City Power*, 152 FERC ¶ 61,012 at P 242.

⁸⁴² See COALTRAIN011649 (July 5, 2012, email between Gary Wrinn and Peter Jones about accessing Spector 360 data and exporting it onto Coaltrain computers).

321. *Was the Wrongdoing Related to Actions by Senior Management and Did Management Engage in a Cover-up.* Mr. Peter Jones, Coaltrain's co-owner, signed the affidavits falsely representing that Coaltrain's data responses were "true, complete, and accurate," despite his knowledge that they did not include relevant materials from the Spector 360 data.

322. Similar to its OCL Strategy violations, Coaltrain's misrepresentations and omissions regarding relevant data and documents were very serious, warranting a significant penalty.

(b) Mitigating Factors Relating to Culpability

323. *Commitment to Compliance and Actions Taken to Correct Violations.* The Commission has stated that it will take into account the nature and extent of an entity's internal compliance measures in existence at the time of the violation as well as the actions taken by an entity to correct the activity that produced the violation.⁸⁴³ Coaltrain's compliance program does not warrant any credit because it made no efforts to remedy its violations (even after the IMM raised concerns about its OCL Trades) and because its co-owners played a critical role designing and directing the fraudulent trading conduct and engaging in a cover-up to obstruct OE Staff's efforts to investigate that conduct.⁸⁴⁴ Similarly, Coaltrain had ample opportunity to remedy its section 35.41(b) violations by coming forward and disclosing the existence of Spector 360 data, but it failed to do so until OE Staff learned of the materials and, even at that point, Coaltrain initially resisted OE Staff's requests.

324. *Self-Reporting, Cooperation, and Reliance on Staff Guidance.* None of the other mitigating factors serve to mitigate Coaltrain's violations. Coaltrain is not eligible to receive credit for any of these factors because it did not self-report the violations, did not cooperate with OE Staff's investigation when it failed to acknowledge the existence of or produce Spector 360 data, or did not seek guidance from staff.

⁸⁴³ Revised Policy Statement on Enforcement, 123 FERC ¶ 61,156 at P 57.

⁸⁴⁴ While we are not applying the Penalty Guidelines to determine Coaltrain's penalty, we nonetheless are persuaded by their guidance that an organization is not entitled to compliance credit where its governing authority directed or supervised the conduct. FERC Penalty Guidelines § 1C2.3, Application Note 10.

(c) **Appropriate Penalty**

325. Based on the foregoing factors, the pleadings in this case, and the Staff Report, the Commission finds that there is a critical need to discourage and deter the fraudulent trading conduct and the intentional misrepresentations, false statements, and material omissions at issue and that OE Staff's recommended \$26 million civil penalty is fair and reasonable under the circumstances.

326. While we are not utilizing the formulas included in the Penalty Guidelines to specifically establish Coaltrain's penalty amount, as we did in *City Power*, we have applied the formulas to the facts and circumstances of this case to consider the penalty levels that would result if this case did not involve multiple types of violations. OE Staff's recommended \$26 million penalty is below the range generated by the formulas in the Penalty Guidelines. Specifically, Coaltrain's OCL Strategy violations would generate a penalty range of \$28 million to \$56 million under the Penalty Guidelines. Pursuant to section 2B1.1 of the Penalty Guidelines, this range accounts for the following factors: (i) Coaltrain's OCL Trades resulted in more than \$8 million in loss, which is the amount Coaltrain earned in MLSA that otherwise would have gone to other market participants; (ii) Coaltrain's OCL Trades involved more than 100,000 MWh of electricity; and (iii) Coaltrain willfully obstructed the investigation by making false and misleading statements and material omissions regarding the existence of Spector 360 data.

327. In addition, Coaltrain's violations for intentional misrepresentations, false statements, and material omissions would generate a penalty range of \$2,560,000 to \$5,120,000 under the Penalty Guidelines. Under section 2C1.1 of the Penalty Guidelines, this range accounts for the following factors: (i) Coaltrain's conduct resulted in substantial interference with the administration of justice; (ii) Coaltrain's conduct was extensive in scope, planning, and preparation; and (iii) Coaltrain willfully obstructed the investigation by making false and misleading statements and material omissions regarding the existence of Spector 360 data.⁸⁴⁵

328. Thus, combining the two penalty ranges from each type of violation generates a penalty at the low end of the range of \$30,560,000 and a penalty at the high end of the range of \$61,120,000. OE Staff's \$26 million penalty is below this range. We find that

⁸⁴⁵ This culpability factor for obstruction of justice applies despite the fact that obstruction of justice is inherent in the underlying violation. FERC Penalty Guidelines § 1C2.3, Application Note 8 ("Adjust the culpability score for the factors listed in subsection (e) [obstruction of justice culpability factor] whether or not the violation guidelines incorporates that factor, or that factor is inherent in the violation.").

the recommended \$26 million civil penalty is particularly appropriate given Coaltrain's multiple types of violations. It designed and implemented a fraudulent scheme and course of business to defraud other market participants and then failed to provide OE Staff with relevant information.

329. None of Respondents' arguments merits a different result for Coaltrain's penalty assessment. They are wrong, for example, that the Commission lacks statutory authority to assess a penalty for market manipulation because, they contend, OE Staff's theory of manipulation is inconsistent with the FPA and Commission orders on MLSA allocation. The Commission has authority under FPA section 316A(b) to assess a penalty against Coaltrain because, as we describe *supra*, its conduct meets each element of the Anti-Manipulation Rule. Coaltrain knowingly designed and implemented its OCL Strategy, which deceived PJM by creating the false impression that Coaltrain was entering into UTC trades for their intended purpose—to arbitrage price differences—when, in fact, it traded for the sole or primary purpose of collecting MLSA payments to the detriment of other market participants. This conduct subjects Coaltrain (and other Respondents) to civil penalties under FPA section 316A(b).⁸⁴⁶

330. Respondents' argument that the Commission lacks authority to impose penalties for Coaltrain's section 35.41(b) violations is equally flawed. This argument ignores the plain language of the FPA section 316A(b), which states that “[a]ny person who violates any provision of subchapter II of this chapter or any provision of any rule or order thereunder shall be subject to a civil penalty of not more than \$1,000,000 for each day that such violation continues.”⁸⁴⁷ Section 35.41(b) of the Commission's regulations is a rule implemented under FPA section 206,⁸⁴⁸ which is a provision under subchapter II of the FPA.⁸⁴⁹ Thus, the Commission's penalty authority under section 316A extends to violations of section 35.41(b). Moreover, the United States Court of Appeals for the District of Columbia Circuit has upheld a Commission-imposed penalty for a violation of section 35.41(b).⁸⁵⁰

⁸⁴⁶ See *Chen*, 151 FERC ¶ 61,179; *City Power*, 152 FERC ¶ 61,012.

⁸⁴⁷ 16 U.S.C. § 825o-1(b) (2012).

⁸⁴⁸ See *Market-Based Rates for Wholesale Sales of Electric Energy, Capacity, and Ancillary Services by Public Utilities*, Order No. 697, 119 FERC ¶ 61,295 (2007).

⁸⁴⁹ See 16 U.S.C. § 825e (2012).

⁸⁵⁰ See *Kourouma*, 723 F.3d 274.

331. We also agree with OE Staff that Messrs. Peter Jones and Sheehan should be held jointly and severally liable with Coaltrain for the \$26 million civil penalty assessed against Coaltrain.⁸⁵¹ Contrary to Messrs. Peter Jones and Sheehan's assertion, the Commission does have the authority to impose joint and several liability on them for Coaltrain's penalty. FPA section 309 gives us broad authority to, among other things, "perform any and all acts . . . as [we] may find necessary or appropriate to carry out the provisions of [the FPA],"⁸⁵² and courts have interpreted this provision to give us wide latitude to fashion remedies as we deem appropriate.⁸⁵³ Moreover, courts routinely impose joint and several liability for civil penalties under statutes that do not prohibit such remedy, such as the FPA.⁸⁵⁴ Here, the Commission believes it is appropriate to exercise this discretion and impose joint and several liability because of Messrs. Peter Jones and Sheehan's ownership and control of Coaltrain and their ability to bankrupt the

⁸⁵¹ We recognize, as Mr. Sheehan points out, that Messrs. Peter Jones and Sheehan are not liable for Coaltrain's section 35.41(b) violation. However, because they are liable for Coaltrain's fraudulent trading conduct and our penalty assessment encompasses both violations, we find that it is appropriate to hold them jointly and severally liable for the penalty against Coaltrain. *See City Power*, 152 FERC ¶ 61,012 at P 257 n.583. Moreover, OE Staff's \$26 million penalty recommendation, which we accept as fair and reasonable, did not propose a separately assessed penalty for the 35.41(b) violations. Rather, it treated such violations, together with Respondents' false and misleading statements and uncooperative behavior as an aggravating factor. Staff Reply at 98-99.

⁸⁵² 16 U.S.C. § 825h (2012).

⁸⁵³ *See, e.g., Xcel Energy Servs. Inc. v. FERC*, 2016 WL 874746, at *6 (D.C. Cir. Mar. 8, 2016) (holding that the Commission has "broad remedial authority" and "unquestionably [has] the authority, in fashioning remedies, to consider equitable principles"); *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 . . .").

⁸⁵⁴ *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. Env'tl. 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").

company and render any penalty assessed against it a nullity. The Commission similarly imposed joint and several liability in *Chen* and *City Power*.⁸⁵⁵

332. Therefore, we direct Coaltrain, Messrs. Peter Jones, and Sheehan, jointly and severally, to pay the \$26 million civil penalty within 60 days of the date of this Order. If they do not pay the \$26 million civil penalty within 60 days of the date of this Order, then the Commission will commence an action in a United States district court for an order affirming the penalty, in which the district court may review the assessment of the civil penalty de novo.⁸⁵⁶

b. Penalty Assessments Against Individual Respondents

i. Respondents' Answers

333. The individual Respondents raise several arguments against OE Staff's penalty recommendations against them. As a threshold matter, they each argue that the Commission lacks statutory authority to sanction individuals under the FPA.⁸⁵⁷ Additionally, they argue that OE Staff failed to prove that they were personally enriched by Coaltrain's OCL Strategy and take issue with OE Staff's reference to 2011 tax returns, arguing that 2011 income is not relevant to trading that occurred between June 15 and September 2, 2010.⁸⁵⁸ They also contend that they were not personally enriched by the OCL Trades because Messrs. Peter Jones and Sheehan withheld money from Coaltrain's 2010 bonus pool for trades believed to be associated with OE Staff's investigation and that the amounts withheld were never paid.⁸⁵⁹

334. In addition, Messrs. Sheehan and Miller argue that because they did not execute any trades they cannot be held liable under the Anti-Manipulation Rule for the OCL

⁸⁵⁵ See *Chen*, 151 FERC ¶ 61,179 at P 165; *City Power*, 152 FERC ¶ 61,012 at P 257.

⁸⁵⁶ 16 U.S.C. § 823b(d)(3)(B) (2012).

⁸⁵⁷ Answer of P. Jones, R. Jones, and Wells at 22-24; Answer of Sheehan, Miller, and Hughes at 32-34.

⁸⁵⁸ Answer of P. Jones, R. Jones, and Wells at 40-42; Answer of Sheehan, Miller, and Hughes at 14.

⁸⁵⁹ Answer of Coaltrain and Individual Respondents at 42; Answer of Sheehan, Miller, and Hughes at 14.

Strategy. This is because, they contend, FPA section 222 does not permit secondary liability for aiding and abetting or controlling person liability.⁸⁶⁰ Mr. Miller also claims that he did not have any supervisory authority at the company to direct other PJM traders to submit trades.⁸⁶¹

ii. OE Staff Report and Reply

335. OE Staff recommends civil penalties of \$5 million each against Messrs. Peter Jones and Sheehan, \$1 million against Mr. Robert Jones, and \$500,000 each against Messrs. Miller and Wells.

336. In support of its \$5 million recommendation against Mr. Peter Jones, OE Staff asserts that as the co-owner of Coaltrain, he played a critical role devising and executing the scheme, as well as directing and encouraging his subordinates to participate in the scheme.⁸⁶² OE Staff states further that he signed the affidavit falsely attesting to the truthfulness and completeness of Coaltrain's disclosures.⁸⁶³ OE Staff states further that there are no mitigating factors that apply to Mr. Peter Jones' conduct and that he has the ability to pay a \$5 million penalty, because he earned more than \$21 million in income in 2010-2011.⁸⁶⁴

337. OE Staff's \$5 million penalty recommendation against Mr. Sheehan is based on many of the same factors that guided its recommendation for Mr. Peter Jones' penalty. OE Staff argues that as a co-owner of Coaltrain, Mr. Sheehan devised, executed, and supervised the fraudulent OCL Strategy.⁸⁶⁵ In addition, OE Staff asserts that Mr. Sheehan attempted to excuse Coaltrain's failure to produce relevant materials by falsely claiming that Coaltrain employees forgot about Spector 360.⁸⁶⁶ Also, OE Staff states that

⁸⁶⁰ Answer of Sheehan, Miller, and Hughes at 15-21. Mr. Sheehan claims that 7,700 MW of Spread Trades he executed were later reclassified as OCL Trades by someone else at the company. *Id.* at 5.

⁸⁶¹ *Id.* at 11.

⁸⁶² Staff Report at 124.

⁸⁶³ *Id.*

⁸⁶⁴ *Id.* (citations omitted).

⁸⁶⁵ *Id.* at 124-125.

⁸⁶⁶ *Id.* at 125.

no mitigating factors apply to Mr. Sheehan's conduct and that he has the ability to pay given that he earned more than \$30 million in 2010-2011.⁸⁶⁷

338. OE Staff bases its \$1 million penalty recommendation against Mr. Robert Jones on the role he played in devising and executing the OCL Strategy, noting that he executed many of the OCL Trades.⁸⁶⁸ OE Staff also states that no mitigating factors apply to his conduct and that he was personally enriched by the scheme, noting that his income increased by more than six times to \$1.5 million in 2010-2011.⁸⁶⁹

339. In support of its \$500,000 recommendation against Mr. Wells, OE Staff notes that he executed many of the OCL Trades and admitted in testimony that the strategy was "the opposite" of a "normal analysis" and was not "congestion based."⁸⁷⁰ OE Staff states further that no mitigating factors apply to Mr. Wells' conduct and, like Mr. Robert Jones, that Mr. Wells was personally enriched by the scheme, as his income more than doubled in 2010 and 2011 to nearly \$500,000.⁸⁷¹

340. Regarding its \$500,000 penalty recommendation against Mr. Miller, OE Staff explains that he was "deeply involved in the planning of the strategy in early June 2010," and, while he did not execute any of the trades, "he recommended that others execute OCL Strategy trades."⁸⁷² As with the other Respondents, OE Staff states that no mitigating factors apply to Mr. Miller's conduct. Further, OE Staff claims that a \$500,000 penalty is appropriate against Mr. Miller in light of the doubling of his salary to more than \$800,000 from 2010 to 2011.⁸⁷³

341. In addition to providing the foregoing bases for its individual penalty recommendations, OE Staff also disputes the individual Respondents' arguments against such recommendations. For example, OE Staff argues that the Commission has the

⁸⁶⁷ *Id.* (citations omitted).

⁸⁶⁸ *Id.*

⁸⁶⁹ *Id.* at 125-126 (citation omitted).

⁸⁷⁰ *Id.* at 126.

⁸⁷¹ *Id.*

⁸⁷² *Id.*

⁸⁷³ *Id.* (citation omitted).

authority to impose penalties on individuals based on long-standing usage of the word “entity” in legal contexts, the logical reading of the term in the FPA in light of Congress’ goals, and the Chevron deference to which it is entitled.⁸⁷⁴

342. OE Staff also refutes Respondents’ argument that they were not personally enriched by the scheme. OE Staff argues that 2010-2011 is the relevant period to consider because Coaltrain did not necessarily distribute bonuses for 2010 performance until the 2011 taxable year.⁸⁷⁵ Further, OE Staff argues that the existence of Coaltrain’s 2010 bonus pool for trades believed to be associated with OE Staff’s investigation does not mean the individual Respondents were not enriched and notes that the amount of the pool did not fully cover the amount of unjust profits.⁸⁷⁶ OE Staff also notes that the pool was created to pay attorney fees and sanctions.⁸⁷⁷

343. Finally, contrary to the assertion by Messrs. Sheehan and Miller, OE Staff argues that they directly participated in a fraudulent scheme and, as such, were primary violators subject to the Anti-Manipulation Rule.⁸⁷⁸ Therefore, OE Staff contends, the case law holding that aiders and abettors cannot be held liable for fraud is irrelevant to this matter.⁸⁷⁹

iii. Commission Determination

344. Based on our assessment of the various penalty factors, as described above in our penalty determination for Coaltrain, the Record in this proceeding, and the pleadings and Staff Report, we find that there is a critical need to discourage and deter each individual Respondent’s unlawful conduct and that OE Staff’s recommended civil penalties against them are warranted, fair, and reasonable. In this section, we explain our penalty

⁸⁷⁴ Staff Reply at 93-98.

⁸⁷⁵ Staff Report at 89.

⁸⁷⁶ Staff Reply at 88.

⁸⁷⁷ *Id.*

⁸⁷⁸ *Id.* at 61.

⁸⁷⁹ *See id.* at 62-63. OE Staff also takes issue with Respondents’ argument that they were not primary actors because the SEC case law they rely on was decided in the context of misrepresentations and private rights of action, not relevant to this proceeding, which involves a scheme and government enforcement action. *Id.* at 63-64.

determinations for the individual Respondents and then address their arguments. The individual penalties are based on each Respondent's unique role and participation in the fraudulent scheme, which we detailed *supra* in section III.B.1.d.

345. *Penalty Assessment Against Mr. Peter Jones:* As detailed *supra* in section III.B.1.d, Mr. Peter Jones played a primary role developing, executing, directing, and trying to cover up the OCL Strategy. His efforts began immediately after Coaltrain discovered its eligibility for MLSA payments in June 2010. He executed OCL Trades and approved many others. No mitigating factors apply to his conduct, as he made no efforts to remedy or cease the violations, continued to make OCL Trades after the IMM raised concerns with the overall strategy, and failed to cooperate with OE Staff's investigation by misrepresenting that Respondents' data responses were "true, complete, and accurate." In light of this conduct, we find that OE Staff's \$5 million recommended penalty is warranted, fair, and reasonable.

346. *Penalty Assessment Against Mr. Sheehan:* As detailed *supra* in section III.B.1.d, Mr. Sheehan also played a primary role designing, implementing, and directing the OCL Strategy from the time Respondents first discovered how much money they could earn through MLSA. He was heavily involved designing the strategy early in June, as evidenced by his June 10, 2010, strategy discussion with Mr. Miller about the best ways to profit by targeting MLSA payments.⁸⁸⁰ He also worked with others to discover the SouthImp-Exp and NCMPImp-Exp paths and to create after-the-fact explanations for the strategy after the commencement of OE Staff's investigation. No mitigating factors apply to Mr. Sheehan's conduct. In light of Mr. Sheehan's conduct, we find that OE Staff's \$5 million recommended penalty is warranted, fair, and reasonable.

347. *Penalty Assessment Against Mr. Robert Jones:* As detailed *supra* in section III.B.1.d, Mr. Robert Jones played a key role executing the OCL Strategy, including by placing more than 40 percent of the OCL Trades for Coaltrain.⁸⁸¹ In proposing his OCL Trades, he made clear that the purpose of the trades was to capture MLSA payments.⁸⁸² No mitigating factors apply to his conduct. In light of Mr. Robert Jones' conduct, we find that OE Staff's \$1 million recommended penalty is warranted, fair, and reasonable.

⁸⁸⁰ Miller Spector 360 Chat IM (June 10, 2010 9:34 AM).

⁸⁸¹ See COALTRAIN003512-3519; COALTRAIN011540.

⁸⁸² See, e.g., COALTRAIN012645, row 2229 (proposing "loss trade"); R. Jones Test. Ex. CT-RJ 16 (proposing trade and noting that the "best hours for losses are 12-22 for an average of \$1.38 in losses"); R. Jones Test. Ex. CT-RJ 126 (proposing a "meg tester for a high load/high loss credit day" on NCMPImp-Exp).

348. *Penalty Assessment Against Mr. Wells:* As detailed *supra* in section III.B.1.d, Mr. Wells played a key role executing the OCL Strategy, having placed more of the OCL Trades—over 46 percent—than any other Respondent.⁸⁸³ He also played an important role advising the company about the best types of OCL Trades for the strategy, for example, in August 2010, advising that a trade “goes up and down but it averages out never losing a lot or making a lot, hence a very good OCL play.”⁸⁸⁴ No mitigating factors apply to his conduct. In light of Mr. Wells’ conduct, we find that OE Staff’s \$500,000 recommended penalty is warranted, fair, and reasonable.

349. *Penalty Assessment Against Mr. Miller:* As detailed *supra* in section III.B.1.d, Mr. Miller was heavily involved researching and designing the OCL Strategy. For example, in early June 2010 he asked Mr. Sheehan, “what price would we expect to make money on for OCLs,” and they went on to strategize about the best ways to profit by targeting MLSA payments.⁸⁸⁵ He also advised and directed other Coaltrain traders to execute OCL Trades.⁸⁸⁶ No mitigating factors apply to Mr. Miller’s conduct. In light of Mr. Miller’s conduct, we find that OE Staff’s \$500,000 recommended penalty is warranted, fair, and reasonable.

350. None of the arguments raised by the individual Respondents warrants a different result. First, we reject their argument that the Commission lacks statutory authority to penalize individuals. The Anti-Manipulation Rule reaches the individual Respondents’ conduct in this case, and we have jurisdiction over them for purposes of enforcing this law. The Anti-Manipulation Rule makes it unlawful for “any entity, directly or indirectly” to engage in fraudulent activities “in connection with” a transaction subject to the Commission’s jurisdiction.⁸⁸⁷ As we explained in Order No. 670, and have applied in multiple cases since, “[a]ny entity’ is a deliberately inclusive term. . . . [that] include[s]

⁸⁸³ See COALTRAIN003512-3519; COALTRAIN011540.

⁸⁸⁴ Wells Test. Ex. 87.

⁸⁸⁵ Miller Spector 360 Chat IM (June 10, 2010 9:34 AM).

⁸⁸⁶ Wells Test. Ex. 55.

⁸⁸⁷ 18 C.F.R. § 1c.2 (2015); *see also* 16 U.S.C. § 824v(a) (2012) (“It shall be unlawful for any entity . . . directly or indirectly, to use or employ, in connection with the purchase or sale of electric energy . . . subject to the jurisdiction of the Commission, any manipulative or deceptive device or contrivance.”).

any person or form of organization, regardless of its legal status, function or activities.”⁸⁸⁸ The phrase “any entity” is broad, and applies to natural persons, such as the individual Respondents, who have direct involvement in manipulative schemes.⁸⁸⁹ Two United States district courts have recently agreed with this position.⁸⁹⁰

351. Second, the Commission is not persuaded by Respondents’ argument that they were not personally enriched by the OCL Strategy. Coaltrain earned unjust profits of more than \$4 million from the scheme, and it is unreasonable to claim that the individuals responsible for and participating in the scheme did not reap some of these gains. Moreover, while we consider how the individual Respondents were enriched as relevant to our consideration of the seriousness of the violations, this factor is not determinative to our penalty determination.

352. Finally, we reject the argument of Messrs. Sheehan and Miller that they cannot be held liable under the Anti-Manipulation Rule for the OCL Strategy because, they contend, FPA section 222 does not permit secondary liability for aiding and abetting or controlling person liability. Respondents cite several cases that held that there is no liability under section 10(b) of the Securities and Exchange Act of 1934 for aiding and abetting a fraudulent scheme.⁸⁹¹ The Commission rejected similar attempts to apply

⁸⁸⁸ Order No. 670, FERC Stats. & Regs. ¶ 31,202 at P 18. The Commission previously has assessed civil penalties to individuals. *See, e.g., Maxim*, 151 FERC ¶ 61,094 at P 66; *Silkman*, 144 FERC ¶ 61,164 at P 93; *Barclays*, 144 FERC ¶ 61,041 at PP 135-146; *Kourouma*, 135 FERC ¶ 61,245 at P 53; *Chen*, 151 FERC 61,179 at P 187. The U.S. Court of Appeals for the District of Columbia Circuit upheld the Commission’s assessment of a civil penalty against Moussa I. Kourouma. *See Kourouma*, 723 F.3d 274.

⁸⁸⁹ *See* Order No. 670, FERC Stats. & Regs. ¶ 31,202 at P 18. As we stated in Order No. 670, “Congress could have used the existing defined terms in the NGA and FPA of ‘person,’ ‘natural-gas company,’ or ‘electric utility,’ but instead chose to use a broader term without providing a specific definition.”

⁸⁹⁰ *FERC v. Barclays Bank PLC*, 105 F. Supp. 3d 1121, 1146 (E.D. Cal. 2015) (holding that “a meaning of ‘entity’ that includes natural persons appears more consistent with the goals of FPA § 222 and the surrounding statutory scheme”); *Silkman*, Nos. 13-13054, 13-13056, 2016 WL 1430009, at *20 (“Read together with the structural features of the FPA identified by the *Barclays* court, the term “entity” in this statutory context appears best read to include individuals.”).

⁸⁹¹ *See* Answer of Sheehan, Miller, and Hughes at 15-21 (citing *Cent. Bank of Denver, N.A. v. First Interstate Bank of Denver, N.A.*, 511 U.S. 164 (1994); *Janus*

(continued...)

these cases to government enforcement actions under the Anti-Manipulation Rule, explaining that they are not relevant for multiple reasons.⁸⁹² For example, the Commission in *Barclays* held that these cases were distinguishable because they involved private rights of actions under section 10(b), in which reliance is a required element.⁸⁹³ Because these SEC cases involved private causes of action and required proof of reliance, they similarly have no bearing on the Commission’s enforcement action against Respondents under FPA section 222 and the Anti-Manipulation Rule.⁸⁹⁴

353. Moreover, the Commission in *Barclays* and *Competitive Energy Services* distinguished *Janus* from fraudulent scheme cases, like this, because *Janus* involved a false statement under section 10(b).⁸⁹⁵ Also, as the Commission recognized in *Barclays*, while the SEC cases hold that private causes of action under section 10(b) do not extend to aiders and abettors, they recognize that primary violators—i.e., those that engage in manipulative acts—can be held liable.⁸⁹⁶ Thus, these SEC cases are not relevant to our

Capital Grp., Inc. v. First Derivative Traders, 131 S. Ct. 2296 (2011); *In re Mut. Funds Inv. Litig.*, 384 F. Supp. 2d. 845 (D. Md. 2005); *In re Parmalat Sec. Litig.*, 376 F. Supp. 2d. 472 (S.D.N.Y. 2005); *In re Charter Commc’n, Inc.*, 443 F.3d 987 (8th Cir. 2006); *Armstrong v. McAlpin*, 699 F.2d 79 (2d Cir. 1983)).

⁸⁹² See *Barclays*, 144 FERC ¶ 61,041 at P 37; *CES*, 144 FERC ¶ 61,163 at P 74.

⁸⁹³ *Barclays*, 144 FERC ¶ 61,041 at P 37.

⁸⁹⁴ *CES*, 144 FERC ¶ 61,163 at P 74 (“Unlike the implied private right of action under section 10(b), a private individual’s reliance on a manipulative or deceptive act is not an element in a government enforcement action under the FPA.”). See also *Cent. Bank*, 511 U.S. at 180 (“A plaintiff must show reliance on the defendant’s misstatement or omission to recover under 10(b)-5.”); *Janus*, 131 S. Ct. at 2302 (“Such suits—against entities that contribute ‘substantial assistance’ to the making of a statement but do not actually make it—may be brought by the SEC . . . but not by private parties.”).

⁸⁹⁵ *Barclays*, 144 FERC ¶ 61,041 at P 37 (noting that *Janus* “considers, and dismisses, aiding and abetting claims in private rights of action for misrepresentations—not schemes—in violation of the 1934 Act); *CES*, 144 FERC ¶ 61,163 at P 74 (distinguishing *Janus* because it applies to false statements, “whereas this case involves liability for schemes and fraud”).

⁸⁹⁶ *Barclays*, 144 FERC ¶ 61,041 at P 37 (holding that the SEC cases on aiding and abetting “do not affect the ability to bring [an] action against primary violators”); see also *Cent. Bank*, 511 U.S. at 177 and 191 (holding that section 10(b) prohibits “the commission of a manipulative act,” and that “[a]ny person or entity, including a lawyer,

(continued...)

determination because the individual Respondents were primary violators in the coordinated OCL Strategy trading scheme. As described *supra*, each Respondent participated in the joint scheme, engaging in acts that furthered the scheme. The Anti-Manipulation Rule prohibits manipulative “scheme[s],” which include coordinated activity by a group of individuals.⁸⁹⁷ The Commission has also made clear that coordinated activity by a group of individuals in furtherance of a scheme is prohibited by the rule.⁸⁹⁸ Finally, this aiding and abetting case law arises in the context of securities law, and “[t]he Commission noted in Order No. 670 that it would not broadly apply precedent in the securities area but rather would do so as appropriate on a case-by-case basis.⁸⁹⁹

354. Therefore, we direct the individual Respondents to pay the above-described civil penalties assessed against them within 60 days of the date of this Order. If they do not pay the penalties within 60 days of the date of this Order, then the Commission will commence an action in a United States district court for an order affirming the penalties, in which the district court may review the assessment of the civil penalties *de novo*.⁹⁰⁰

accountant, or bank, who employs a manipulative device . . . on which a purchaser or seller of securities relies may be liable as a primary violator under 10b-5, assuming all of the requirements for primary liability . . . are met”).

⁸⁹⁷ See *Cooper v. Pickett*, 137 F.3d 616, 624 (9th Cir. 1997) (holding that “*Central Bank* does not preclude liability based on allegations that a group of defendants acted together to violate the securities laws, as long as each defendant committed a manipulative or deceptive act in furtherance of the scheme”).

⁸⁹⁸ See Order No. 670, FERC Stats. & Regs. ¶ 31,202 at P 59 (“collusion for the purpose of market manipulation” prohibited by Anti-Manipulation Rule); *id.* P 50 (prohibiting “conspiracy for the purpose of impairing, obstructing or defeating a well-functioning market”).

⁸⁹⁹ *Barclays*, 144 FERC ¶ 61,041 at P 37 (citing Order No. 670, FERC Stats. & Regs. ¶ 31,202 at PP 31, 42).

⁹⁰⁰ 16 U.S.C. § 823b(d)(3)(B) (2012).

2. Disgorgement

a. Respondents' Answers

355. Respondents focus their arguments related to disgorgement on OE's Staff's recommendation to hold Messrs. Sheehan and Peter Jones jointly and severally liable for Coaltrain's disgorgement. Specifically, they argue that the FPA does not authorize disgorgement on a joint and several basis,⁹⁰¹ and that, even if the Commission had such authority, it should not apply it because liability can be apportioned between Respondents.⁹⁰²

b. OE Staff Report and Reply

356. OE Staff recommends that the Commission require Coaltrain to disgorge the OCL Strategy's net profits of \$4,121,894, which, it claims, reflects the difference between the UTC spreads and transaction costs Coaltrain paid to execute the OCL trades, and the MLSA payments it received as a result of such trades.⁹⁰³ OE Staff also argues that Messrs. Peter Jones and Sheehan should be held jointly and severally liable for Coaltrain's disgorgement because they have rendered Coaltrain defunct by withdrawing more than \$33 million after the start of OE Staff's investigation.⁹⁰⁴

c. Commission Determination

357. We find that Coaltrain is required to disgorge all of its profits from all three categories of its OCL Trades. It is a long-standing Commission practice to require disgorgement of unjust profits.⁹⁰⁵ In cases where pecuniary gain results from a violation, "the Commission enters a disgorgement order for the full amount of the gain plus

⁹⁰¹ Answer of Sheehan, Miller, and Hughes at 23-25; Answer of P. Jones, R. Jones, and Wells at 30.

⁹⁰² Answer of Sheehan, Miller, and Hughes at 25-26.

⁹⁰³ Staff Report at 117.

⁹⁰⁴ *Id.* at 117-118.

⁹⁰⁵ Revised Policy Statement on Enforcement, 123 FERC ¶ 61,156 at P 43.

interest.”⁹⁰⁶ Pecuniary gain includes “the additional before tax profit to the entity resulting from the relevant conduct of the violation.”⁹⁰⁷

358. The disgorgement amount “need only be a reasonable approximation of profits causally connected to the violation”⁹⁰⁸ and we find that OE Staff correctly calculated “a reasonable approximation of the profits” by taking the MLSA payments Respondents collected as a result of all three categories of OCL Trades and deducting the transaction costs of their trades.⁹⁰⁹

359. Therefore, in addition to the civil penalties, we direct disgorgement payments, plus applicable interest, of \$4,121,894. Such payments shall be made within 60 days of the date of this Order. We will require the interest on these sums to be calculated in accordance with 18 C.F.R. § 35.19(a) for the full period of time since Respondents received their MLSA payments from PJM.

360. Finally, we agree with OE Staff’s recommendation to hold Coaltrain, Mr. Peter Jones, and Mr. Sheehan jointly and severally liable for the \$4,121,894 in unjust profits Coaltrain received as a result of its fraudulent trading conduct. We find that applying joint and several liability is appropriate where, as occurred here, multiple respondents collaborate or have a close relationship in executing the fraud.⁹¹⁰

⁹⁰⁶ FERC Penalty Guidelines § 1B1.1(a).

⁹⁰⁷ *Id.* § 1A1.1, Application Note 3(g).

⁹⁰⁸ *SEC v. Whittemore*, 659 F.3d 1, 7 (D.C. Cir. 2011).

⁹⁰⁹ *Chen*, 151 FERC ¶ 61,179 at 189; *City Power*, 152 FERC ¶ 61,012 at P 272.

⁹¹⁰ *Whittemore*, 659 F.3d at 10-11 (affirming finding that multiple defendants are jointly and severally liable for disgorgement of unjust profits because of their collaboration in a fraudulent securities scheme). *See also Xcel Energy Servs. Inc. v. FERC*, 2016 WL 874746, at *6 (D.C. Cir. Mar. 8, 2016) (holding that the Commission has “broad remedial authority” and “unquestionably [has] the authority, in fashioning remedies, to consider equitable principles”); *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 . . .”).

D. The Commission's Authority to Conduct an Order to Show Cause Proceeding for This Matter

361. Respondents raise several arguments challenging the Commission's authority to hold this order to show cause proceeding. For example, Respondents argue that section 316A authorizes the Commission to assess a civil penalty after notice and opportunity for public hearing, but the order to show cause process is not the public hearing process required.⁹¹¹ Respondents are wrong. The public hearing requirement is satisfied both by this order to show cause process and by Respondents being provided with an opportunity for an agency hearing.⁹¹² The FPA permits the Commission wide latitude to create processes to carry out the provisions of the FPA, including remedial provisions,⁹¹³ and we have always used this order to show cause process to satisfy the public hearing requirement.⁹¹⁴

362. Respondents further argue that the Commission cannot adjudicate on a paper record when disputed material facts, including motive, intent, and credibility are at issue.⁹¹⁵ Were the Commission to accept Respondents' argument, it would effectively

⁹¹¹ Answer of Sheehan, Miller, and Hughes at 34.

⁹¹² Respondents do not dispute that they received notice as part of the Notice of Proposed Penalty attached to the Order to Show Cause.

⁹¹³ FPA section 309 authorizes the Commission "to perform any and all acts, and to prescribe, issue, make, amend, and rescind such orders ... as it may find necessary or appropriate to carry out the provisions of [the FPA]." 16 U.S.C. § 825h. *See also Xcel Energy Servs. Inc. v. FERC*, 2016 WL 874746, at *6 (D.C. Cir. Mar. 8, 2016) ("[Section 309] vests the Commission with broad remedial authority." Indeed, in examining the parallel provision in the Natural Gas Act, the court concluded that provision "unquestionably gives [the Commission] the authority, in fashioning remedies, to consider equitable principles, one of which is to regard as being done that which should have been done."); *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 . . .").

⁹¹⁴ A list of the Commission's previous Order to Show Cause proceedings is maintained on its website at <http://www.ferc.gov/enforcement/civil-penalties/show-cause-orders.asp>.

⁹¹⁵ Answer of Coaltrain and Individual Respondents at 92.

eliminate FPA section 31(d)(3) from the statute. As a practical matter, every investigation involves disputed material facts or questions about motive, intent, or credibility. To argue that the presence of these two factors prohibits the Commission from ruling on a paper record would mean that all investigations must be adjudicated by an ALJ. If that was the result Congress intended, it would not have provided FPA section 31(d)(3) as one of two options for respondents to choose.

E. De Novo Review by a District Court

363. Respondents argue that they are statutorily entitled to and have elected a de novo trial in federal district court pursuant to FPA section 31(d).⁹¹⁶ They argue they are entitled to a full trial on the merits and, if the Commission imposes a penalty, urge the Commission to declare in the penalty order that Respondents should have a full trial on the merits and that district court review should not be limited to the Staff Report and the administrative Record or direct Staff to take this position.⁹¹⁷

364. The Commission rejects Respondents' argument. The FPA entitles Respondents to de novo review, not a de novo trial.⁹¹⁸ The Commission does not have the authority to direct the district court to do anything and will not direct OE Staff to take this position. The district court will have the discretion to review the Record in the manner it deems

⁹¹⁶ *Id.* at 81-83, 90-92.

⁹¹⁷ *Id.* at 81-83, 90-92.

⁹¹⁸ 16 U.S.C. § 823b(d)(3)(B). While Respondents' cite to two orders that refer to a de novo trial, *Consumers Power Co.*, 68 FERC ¶ 61,077 at 22 (1994) and *Procedures for the Assessment of Civil Penalties under Section 31 of the Federal Power Act*, 44 FERC 61,256 at 14 (1988), those orders do not trump the language of the statute and the de novo review process was not a central issue in the orders. In addition, the Commission has reiterated this position in several Orders to Show Cause and cases filed in federal district court since that time. *See Chen*, 151 FERC ¶ 61,179 at P 193; *Rumford Paper Company*, 140 FERC ¶ 61,030 (2012); *Lincoln Paper & Tissue, LLC*, 140 FERC ¶ 61,031 (2012); *Competitive Energy Services, LLC*, 140 FERC ¶ 61,032 (2012); *Silkman*, 140 FERC ¶ 61,033 (2012); *FERC v. Barclays Bank PLC*, Case No. 2:13-cv-02093-TLN-EFB (E.D. Cal.), Plaintiff's Reply to Defendant's Oppositions to Plaintiff's Motion to Affirm Civil Penalties Assessed By FERC at 3-10 (April 21, 2016); *FERC v. City Power Marketing, LLC*, Case No. 1:15-cv-01428-JDB (D.D.C.), Memorandum in Opposition to Respondent's Motion to Dismiss at 28-40 (December 22, 2015).

most appropriate, whether that includes simply reviewing the Record, adjudicating issues with or without an evidentiary hearing, or any other processes it chooses.⁹¹⁹

F. Rehearing

365. Given Respondents' election under section 31(d)(3)(A) of the FPA, this Order will not be subject to rehearing.⁹²⁰ If a person elects the procedure under section 31(d)(3) of the FPA, the statute provides for: (i) prompt assessment of a penalty by Commission order; (ii) if the penalty is unpaid within 60 days, the Commission shall institute a proceeding in the appropriate district court seeking an order affirming the assessment of a civil penalty and that court shall have the authority to review de novo the law and facts involved; and (iii) the district court shall have the jurisdiction to enforce, modify, or set aside, in whole or in part, such penalty assessment. Following this process, a person can appeal to a United States Court of Appeals within the appropriate time for review of the district court order.⁹²¹

The Commission orders:

(A) Coaltrain, jointly and severally with Messrs. Peter Jones and Sheehan, is hereby directed to pay to the United States Treasury by a wire transfer a civil penalty in the sum of \$26,000,000 and to distribute its unjust profits, plus interest, to PJM, as discussed in the body of this Order. If Coaltrain does not make the civil penalty payment within the stated time period, interest payable to the United States Treasury will begin to accrue pursuant to the Commission's regulations at 18 C.F.R § 35.19a from the date that payment is due.

⁹¹⁹ Respondents raise additional arguments relating to de novo review, the Seventh Amendment, consistency of application of anti-manipulation rules across federal agencies, whether live testimony is a requirement for adjudication of investigations, and whether use of the word "action" in the FPA requires the proceeding to be governed by the Federal Rules of Civil Procedure. The Commission does not address these issues here, as they are beyond the scope of this proceeding.

⁹²⁰ See *Process for Assessing Civil Penalties*, 117 FERC ¶ 61,317, at P 5 (2006); see also *Barclays*, 144 FERC ¶ 61,041 at P 152; *CES*, 144 FERC ¶ 61,163 at P 104; *Silkman*, 144 FERC ¶ 61,164 at P 96; *Lincoln*, 144 FERC ¶ 61,162 at P 80.

⁹²¹ 16 U.S.C §823b(d)(3) (2012).

(B) Mr. Peter Jones is hereby directed to pay to the United States Treasury by a wire transfer a civil penalty in the sum of \$5,000,000 and to distribute his unjust profits, plus interest, to PJM, as discussed in the body of this Order. If Mr. Peter Jones does not make the civil penalty payment within the stated time period, interest payable to the United States Treasury will begin to accrue pursuant to the Commission's regulations at 18 C.F.R. § 35.19a from the date that payment is due.

(C) Mr. Shawn Sheehan is hereby directed to pay to the United States Treasury by a wire transfer a civil penalty in the sum of \$5,000,000 and to distribute his unjust profits, plus interest, to PJM, as discussed in the body of this Order. If Mr. Sheehan does not make the civil penalty payment within the stated time period, interest payable to the United States Treasury will begin to accrue pursuant to the Commission's regulations at 18 C.F.R. § 35.19a from the date that payment is due.

(D) Mr. Robert Jones is hereby directed to pay to the United States Treasury by a wire transfer a civil penalty in the sum of \$1,000,000 as discussed in the body of this Order. If Mr. Robert Jones does not make the civil penalty payment within the stated time period, interest payable to the United States Treasury will begin to accrue pursuant to the Commission's regulations at 18 C.F.R. § 35.19a from the date that payment is due.

(E) Mr. Jeff Miller is hereby directed to pay to the United States Treasury by a wire transfer a civil penalty in the sum of \$500,000 as discussed in the body of this Order. If Mr. Miller does not make the civil penalty payment within the stated time period, interest payable to the United States Treasury will begin to accrue pursuant to the Commission's regulations at 18 C.F.R. § 35.19a from the date that payment is due.

(F) Mr. Jack Wells is hereby directed to pay to the United States Treasury by a wire transfer a civil penalty in the sum of \$500,000 as discussed in the body of this Order. If Mr. Wells does not make the civil penalty payment within the stated time period, interest payable to the United States Treasury will begin to accrue pursuant to the Commission's regulations at 18 C.F.R. § 35.19a from the date that payment is due.

(G) The Commission directs PJM to establish a method to resettle and distribute the resettled MLSA payments in a manner which identifies: (i) the market participants that would have received higher MLSA payments in the absence of Respondents' activity during the Manipulation Period; and (ii) the amounts of those higher payments. The Commission directs PJM to use the disgorgement funds and interest it receives pursuant to this Order from Respondents to provide reimbursement of MLSA payments, and any available interest, to those entities identified as a result of PJM's proposed methodology. PJM shall provide its proposed methodology to resettle and distribute the MLSA payments to the Director of OE within 45 days of receipt of all of the disgorgement and interest funds from Respondents for the Director's approval.

PJM shall distribute the funds to the entities it has identified promptly after receiving the Director of OE's approval of the resettlement and distribution methodology.

By the Commission. Chairman Bay is not participating.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.