

154 FERC ¶ 61,002
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 TO SHOW CAUSE AND NOTICE OF PROPOSED PENALTY

(Issued January 6, 2016)

1. Pursuant to Rule 209(a)(2) of the Commission's Rules of Practice and Procedure,¹ the Commission's Revised Policy Statement on Enforcement,² and the Commission's Statement of Administrative Policy Regarding the Process for Assessing Civil Penalties,³ the Commission directs the above-captioned respondents, Coaltrain Energy, L.P. (Coaltrain), Coaltrain's co-owners Peter Jones and Shawn Sheehan, and traders/analysts Robert Jones, Jeff Miller, Jack Wells, and Adam Hughes (collectively, Respondents), to show cause why they should not be found to have violated section 1c.2 of the Commission's regulations and section 222 of the Federal Power Act (FPA) by engaging in fraudulent Up To Congestion (UTC) transactions in PJM Interconnection L.L.C.'s energy markets.⁴ The Commission further directs Coaltrain to show cause why it should not be found to have violated 18 C.F.R. § 35.41(b) of the Commission's rules through false and misleading statements and material omissions relating to the existence of documents responsive to data requests and relating to the trading conduct at issue here. The Commission directs Coaltrain, Peter Jones, and Shawn Sheehan to show cause why they should not be jointly and severally required to disgorge unjust profits of \$4,121,894, and directs all Respondents to show cause why they should not be assessed civil penalties in the following amounts:

¹ 18 C.F.R. § 385.209(a)(2) (2015).

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

³ *Process for Assessing Civil Penalties*, 117 FERC ¶ 61,317, at P 5 (2006).

⁴ 18 C.F.R. § 1c.2 (2015); 16 U.S.C. § 824v(a)(2012).

- *Coaltrain*: \$26,000,000
- *Peter Jones*: \$5,000,000
- *Shawn Sheehan*: \$5,000,000
- *Robert Jones*: \$1,000,000
- *Jeff Miller*: \$500,000
- *Jack Wells*: \$500,000
- *Adam Hughes*: \$250,000

Finally, the Commission directs Peter Jones and Shawn Sheehan to show cause why they should not be held jointly and severally liable for civil penalties assessed against Coaltrain.⁵ Respondents may also seek a modification of those amounts consistent with section 31(d)(4) of the FPA.⁶ Pursuant to Rule 213(a) of the Commission's Rules of Practice and Procedure,⁷ the Commission directs Respondents to file an answer with the Commission within 30 days of the date of this order. Office of Enforcement Staff (Enforcement staff) may reply to Respondent's answer within 30 days of the filing of the answer. The Commission will consider these pleadings as part of its review of this proceeding.

2. This case presents allegations by Enforcement staff of Respondents' violations of the Commission's Prohibition of Energy Market Manipulation and Coaltrain's violation of 18 C.F.R. § 35.41(b). These allegations arose out of an investigation conducted by Enforcement staff and are described in the Enforcement Staff Report and Recommendation submitted to the Commission on December 7, 2015 (Enforcement Staff

⁵ In determining appropriate civil penalties where individuals are held jointly and severally liable for a company's penalties, the Commission may take into consideration the sum of civil penalties assessed against all of the entities as well as the amounts assessed individually against each of the entities.

⁶We note that under section 31(d)(4) of the FPA, 16 U.S.C. 823b(d)(4), the Commission may "compromise, modify, or remit, with or without conditions, any civil penalty which may be imposed . . . at any time prior to a final decision by the court of appeals . . . or by the district court."

⁷ 18 C.F.R. § 385.213(a) (2015).

Report).⁸ Issuance of this order does not indicate Commission adoption or endorsement of the Enforcement Staff Report.

3. The Enforcement Staff Report alleges that the Respondents conceived of and implemented a fraudulent scheme in connection with the UTC markets operated by PJM. Specifically, Enforcement staff alleges that the Named Individuals devised and implemented a scheme to inflate trade volumes of UTCs through transactions designed to wrongfully collect large amounts of market credits known as Marginal Loss Surplus Allocations (MLSA) based simply on trading volume. Specifically, the Enforcement Staff Report alleges that Respondents discovered that they could profit from MLSA payments alone if UTC price spreads could be minimized or avoided entirely, and thereafter devised a scheme they called the OCL Strategy (meaning “Over-Collected Losses,” which was their term for MLSA payments) that involved researching and executing sham UTC trades on paths with reliably zero or near-zero price spreads not to profit from price differentials between the day-ahead and real-time markets, but rather to avoid or nullify such price spreads in order to profit from MLSA payments alone. The Report alleges that the Respondents made OCL Strategy trades on 40 separate paths, but made most of the volume of OCL Strategy trades on two paths—SouthImp-Exp and NCMPImp-Exp—that the Commission recently addressed in another order assessing penalties.⁹

4. The Enforcement Staff Report also alleges that Respondents omitted large numbers of documents responsive to Enforcement staff’s data requests and then tried to cover it up by falsely attesting that their responses were “true, complete, and accurate.” The Report states that among these missing documents were thousands of communications and screenshots recorded and preserved by the computer security monitoring software that the company employed to record all activities done by employees on their work and home computers. The Report states that Enforcement staff learned about these missing documents from a former employee years after the investigation had commenced, and that these missing documents provided important evidence of Respondents’ conduct and intent.

⁸ The Enforcement Staff Report is attached to this order as Appendix A. The Enforcement Staff Report describes the background of Enforcement staff’s investigation, findings and analysis, and recommended sanctions.

⁹ *City Power Marketing, LLC, et al.*, 152 FERC ¶ 61,012 at PP 49-52, 127-160 (2015).

5. In light of the allegations contained in the Enforcement Staff Report, the Commission directs Respondents to respond to this order as set forth above.¹⁰ This order also is the notice of proposed penalty required pursuant to section 31 of the FPA.¹¹ In the answer to this order, Respondents have the option to choose between either (a) an administrative hearing before an ALJ at the Commission prior to the assessment of a penalty under section 31(d)(2)(A), or (b) a prompt penalty assessment by the Commission under section 31(d)(3)(A). If Respondents elect an administrative hearing before an ALJ, the Commission will issue a hearing order unless it is determined that the matter can be resolved in a summary disposition; if Respondents elect a prompt penalty assessment, and if, after a review of the full record to be developed in this proceeding, the Commission finds a violation, the Commission will issue an order assessing a penalty. If such penalty is not paid within 60 days of assessment, the Commission will commence an action in a United States district court for an order affirming the penalty.¹²

6. The Commission authorizes Enforcement staff to disclose information obtained during the course of the investigation as necessary to advance this matter.

The Commission orders:

(A) Within 30 days of the date of this order, Respondents must file an answer in accordance with Rule 213 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213, showing cause why they should not be found to have violated 18 C.F.R. § 1c.2 and 16 U.S.C. § 824v(a) with respect to their UTC trading in PJM.

(B) Within 30 days of the date of this order, Coaltrain must file an answer in accordance with Rule 213 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213, showing cause why it should not be found to have violated 18 C.F.R. § 35.41(b) through the conduct described in the Staff Report.

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

¹¹ 16 U.S.C. § 823b(d) (2012).

¹² FPA Section 31(d)(3)(B), 16 U.S.C. § 823b(d)(3)(B). *See also Process for Assessing Civil Penalties, supra* note 3.

(C) Within 30 days of the date of this order, Respondents must file an answer in accordance with Rule 213 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213, showing cause why their alleged violation should not warrant an order requiring Coaltrain, Peter Jones, and Shawn Sheehan jointly and severally to disgorge unjust profits in the amounts described in Paragraph 1 of this order, or a modification of that amount consistent with section 31(d)(4) of the FPA.

(D) Within 30 days of the date of this order, Respondents must file an answer in accordance with Rule 213 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213, showing cause why their alleged violation should not warrant an order requiring Respondents to be assessed civil penalties in the amounts described in Paragraph 1 of this order, or a modification of that amount consistent with section 31(d)(4) of the FPA; and Peter Jones and Shawn Sheehan must file an answer showing cause why their alleged violations should not warrant an order requiring them to be held jointly and severally responsible for civil penalties assessed against Coaltrain.

(E) In any answer, Respondents should address any matter, legal, factual or procedural, that they would urge in the Commission's consideration of this matter. To the extent that Respondents cite any material not cited in the Enforcement Staff Report, Respondents are directed to file non-publicly one (1) copy of such material on CD-ROM or DVD in the captioned dockets and to serve a copy of same on Enforcement staff.

(F) Pursuant to section 31(d)(1) of the FPA, within 30 days of the date of this order, Respondents may also make an election to have the procedures set forth in section 31(d)(3) of the FPA apply to this proceeding. Under that provision, if the Commission finds a violation, the Commission will issue a penalty assessment and, if not paid within 60 days of the order assessing penalties, the Commission will institute an action in the appropriate United States district court. Should Respondents fail to make a timely election under section 31(d)(1), the procedures of section 31(d)(2) will apply.

(G) Within 30 days of the filing of the answer by Respondents, Enforcement staff may file a reply with the Commission.

By the Commission. Chairman Bay is not participating.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.

APPENDIX A



FEDERAL ENERGY REGULATORY COMMISSION

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

Docket No. IN16-4-000

Enforcement Staff Report and Recommendation

Office of Enforcement

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I. Executive Summary

This matter involves a trading scheme devised and executed during the summer of 2010 by Coaltrain Energy L.P. (a now-defunct financial trading firm);¹ Coaltrain’s co-owners Peter Jones and Shawn Sheehan; and traders/analysts Robert Jones, Jeff Miller, Jack Wells, and Adam Hughes (Named Individuals) (collectively, Respondents), whose purpose was to make sham Up-To Congestion trades (UTC) not to profit from price differentials between the day-ahead and real-time markets, but rather to avoid or nullify such price spreads in order to profit from Marginal Loss Surplus Allocation (MLSA) payments. Respondents came up with the scheme in early June and then put it into action from June 15 until September 2, 2010. In addition, Coaltrain made false and misleading statements and material omissions during the course of the investigation to avoid producing highly relevant evidence to Enforcement.

While Respondents had made tens of millions of dollars over the years by doing arbitrage-based UTC trades² (they called this the “Spread Strategy”), they developed a new manipulative strategy in the summer of 2010 after they discovered that they could profit from MLSA payments alone if price spreads did not get in the way. They called their new scheme the “OCL Strategy” (meaning “Over-Collected Losses,” which was their word for MLSA payments), and the plan was to make UTC trades with reliably zero or near-zero price spreads—the very opposite of a legitimate arbitrage strategy that seeks to profit from rather than avoid or minimize price spreads—with the intent to gain an outsized share of MLSA payments. In this, Respondents had the same essential purpose as that which the Commission recently addressed in the other UTC proceedings, *City Power* and *Chen*:³ to “deceive[] 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 to collect MLSA payments to the detriment of other market participants.”⁴ Indeed, as shown below, the overwhelming majority of trades at issue here are the same type of trades made at the same trading points for the same purpose as in *City Power*, and the trades had the same essential purpose as in *Chen*.

¹ The general partner controlling Coaltrain Energy L.P. is a company called Coaltrain Management, LLC, which is wholly owned by Peter Jones and Shawn Sheehan. Jones and Sheehan are limited partners in Coaltrain Energy L.P. This report will use the term “Coaltrain” to refer to Coaltrain Energy L.P., though both companies were wholly owned and controlled by Jones and Sheehan.

² Arbitrage-based UTC trades are transactions placed with the intent to profit on the price spread between the day-ahead (DA) and real-time (RT) congestion prices at two different locations.

³ *City Power Marketing, LLC, et al.*, 152 FERC ¶ 61,012 (2015) (*City Power*); *Houlian Chen, et al.*, 151 FERC ¶ 61,179 (2015) (*Chen*).

⁴ *City Power*, 152 FERC ¶ 61,012 at P 6.

Respondents' two main OCL Strategy trades were the same ones the Commission already addressed (and found manipulative) in *City Power* and in the *Oceanside* settlement:⁵ SouthImp-Exp (which had zero price spreads), and NCMPImp-Exp (which had reliably tiny, unprofitable price spreads). The only difference between what Respondents did and what *City Power* and *Oceanside* did was that Respondents' volume of manipulative trades was much larger. Coaltrain's volume of zero-spread SouthImp-Exp trades (2.78 million MWh)⁶ and of tiny-but-still-unprofitable spread NCMPImp-Exp trades (1.08 million MWh) was vastly greater than what the other entities had done.

SouthImp-Exp and NCMPImp-Exp were Coaltrain's most successful OCL trades, but they weren't the only ones, and in fact Respondents themselves said that they did OCL Strategy trades on 38 other UTC paths. They cleared approximately 750,000 MWh of MLSA-eligible trades on these 38 other OCL paths between June 15 and September 2, 2010. The purpose behind these other OCL Strategy trades was the same as SouthImp-Exp and NCMPImp-Exp: to profit from MLSA, not from the price differentials between the day-ahead and real-time prices.

The evidence that this strategy targeted MLSA payments includes Respondents' trade data, the screenshots taken by their computer monitoring software showing how they analyzed and executed their trades, their contemporaneous communications, and their subsequent testimony. While there is voluminous evidence showing that Respondents' strategy was designed not to profit from price spreads but instead to capture MLSA, a contemporaneous comment from Hughes—who designed the software tools Respondents used to carry out their scheme—sums it up: “create application to find deals for loss credits.”⁷ This is exactly what Respondents sought to do and, in fact, did.

* * *

⁵ *In re PJM Up-To Congestion Transactions*, 142 FERC ¶ 61,088 (2013) (Oceanside Settlement).

⁶ This volume reflects only the MLSA-eligible trades on SouthImp-Exp. As will be discussed below, Respondents mistakenly did a couple days' of SouthImp-Exp trades that were not eligible to receive MLSA.

⁷ Bates No. COALTRAIN012638, row 1951; *see also* Bates No. COALTRAIN012639, row 27.

Respondents ultimately made large profits from this strategy but not from the trades themselves. As the name they gave to the strategy—the “OCL Strategy”—implies, their profits were entirely driven by MLSA payments, while they consistently (and predictably) lost money on the price differentials and transaction costs related to the UTC trades, as the following table shows:⁸

OCL Path	UTC Profits and Losses					UTC Volumes	
	UTC Revenues (\$)	Transaction Costs (\$)	PnL (w/o MLSA) (\$)	MLSA (\$)	PnL (w/ MLSA) (\$)	MLSA-Eligible (MW/h)	Cleared Volume (MW/h)
SOUTHImp-Exp	0	(2,429,222)	(2,429,222)	5,077,119	2,647,897	2,782,525	2,812,075
NCMPAImp-Exp	124,359	(893,048)	(768,689)	1,789,887	1,021,198	1,088,670	1,088,670
38 Other OCL Paths	(221,075)	(512,187)	(733,262)	1,186,060	452,798	738,963	749,146
TOTAL	(96,716)	(3,834,457)	(3,931,173)	8,053,066	4,121,894	4,610,158	4,649,891

In most cases Respondents paid for transmission when they did not have to; indeed, the fact that they used free transmission for a handful of their SouthImp-Exp and NCMPAImp-Exp trades shows that they knew they did not need to pay for transmission to make those trades. And even for the UTC trades that otherwise required them to pay for transmission, they knew how to substantially reduce their costs by using a tactic they called “overscheduling.”⁹ Yet while they did that for their Spread Strategy trades, they did not use it for their OCL Strategy trades. The only reason to pay for transmission when it was not necessary was to make their volumes eligible for MLSA payments. As the table above also shows, the SouthImp-Exp trades made no money on the spread, the NCMPAImp-Exp trades made only a small amount of money on the spread (not nearly enough to pay for their transaction costs, particularly after they voluntarily increased those costs by unnecessarily paying for transmission), and the rest of the OCL Strategy paths on the whole lost a significant amount of money on the spread. Voluntarily increasing costs while consistently losing money on the spreads are not characteristics of traders intending to profit from market fundamentals—but profiting from market fundamentals is what virtual traders are supposed to be doing.

Overall, Respondents executed 4.61 million MWh of trades during the summer of 2010 pursuant to the manipulative OCL Strategy, losing more than \$96,000 on the UTC price spreads and another \$3.83 million in transaction costs (including money they spent

⁸ Calculations relied upon the following data and Enforcement determinations: Coaltrain’s Transactional data (Bates Nos. COALTRAIN003512 – 3519), Coaltrain’s Transmission Loss Credit Summaries (Bates Nos. COALTRAIN003521 – 4127), Hourly Loss Credit Allocation data from PJM (3d_DR_Trade_Data_COALTR), and Coaltrain’s OCL Transactions (Bates No. COALTRAIN011540). OCL trades are those on paths identified in Bates No. COALTRAIN011540, occur between June 15 and September 2, 2010, and are eligible for MLSA (do not sink into MISO and have an associated transmission reservation).

⁹ See *infra* at 76.

on paying to reserve transmission when they could have gotten it for free), but they collected \$8.05 million in MLSA payments from these trades and thereby reaped unjust profits in the amount of \$4.12 million.

* * *

This matter is similar to *City Power* in another important respect: like what the company and its principal did in that matter, Coaltrain spent years trying to impede this investigation by making false statements and concealing evidence. In particular, the company violated 18 C.F.R. § 35.41(b) (2015) when Respondents omitted large numbers of documents responsive to Enforcement’s data requests and then tried to cover it up by falsely attesting that their responses were “true, complete, and accurate.” Then, after Enforcement discovered the missing documents, Respondents tried to justify their conduct by falsely testifying that they had simply forgotten about the documents. As in *City Power*, Enforcement only discovered the existence of the missing documents from a former employee years after the investigation was well advanced. The missing documents—which principally consist of materials recorded by the company’s computer security monitoring software (called Spector 360) that recorded every keystroke on employees’ computers (other than co-owners Peter Jones and Sheehan) and took screen shots of every employee monitor every twenty seconds all day long—provide important evidence of Respondents’ conduct and intent.¹⁰

* * *

As discussed below, Office of Enforcement staff (Enforcement) concludes that Respondents violated 18 C.F.R. § 1c.2 (2015) (Anti-Manipulation Rule) and section 222(a) of the Federal Power Act (FPA), 16 U.S.C. § 824v(a) (2012), by manipulating the wholesale energy markets, and that Coaltrain violated 18 C.F.R. § 35.41(b) because it omitted material information and made false and misleading statements to Enforcement. Enforcement recommends that, pursuant to section 316A of the FPA, 16 U.S.C. § 825o-1 (2012), the Commission order Respondents to show cause why they should not be assessed: \$26 million in civil penalties and \$4,121,894 in disgorgement of unjust profits against Coaltrain, \$5 million each against Peter Jones and Sheehan, \$1 million against Robert Jones, \$500,000 each against Wells and Miller, and \$250,000 against Hughes. Finally, Enforcement recommends that the Commission order Coaltrain, Peter Jones, and Sheehan to show cause why the disgorgement and penalties assessed against Coaltrain should not also be assessed jointly and severally against Peter Jones and Sheehan because, as Coaltrain’s co-owners, they withdrew more than \$33 million from Coaltrain’s

¹⁰ A large portion of the evidence in this matter is derived from the documents and other materials recorded by Spector 360. While the keystroke text data is not much different from ordinary documents, the screen shots taken by Spector 360 are very different, and create a visual record of what Respondents were working on, what they were looking for, how they conducted their analyses, and what they actually saw—as if standing over their shoulders while they work. This evidence will be reproduced as images taken from the screen shots.

accounts after this investigation started, leaving the company with inadequate resources to pay penalties.

* * *

Section II provides the background. Section III summarizes the evidence for manipulation and false statements. Section IV analyzes the violations. Section V addresses recommended remedies. Section VI concludes the report.

II. Background

A. Relevant Parties

Peter Jones and Sheehan are experienced energy traders. Sheehan first began trading energy in 1997, and has continuously worked as a trader since about 2000.¹¹ Peter Jones has been trading UTCs in PJM since approximately 2001.¹² Together, Sheehan and Peter Jones formed a trading company called Energy Endeavors in or about 2004.¹³ In or about early 2009, Peter Jones and Sheehan founded a new set of companies that they jointly controlled through a variety of limited liability companies and limited partnerships.¹⁴ Coaltrain Energy, L.P., is the name of their business entity that traded almost exclusively in the PJM market. Coaltrain had market-based rate authority when the trading at issue in this matter occurred.¹⁵ Respondents' organization chart shows how

¹¹ Sheehan Test. Tr. 14:10-16:1.

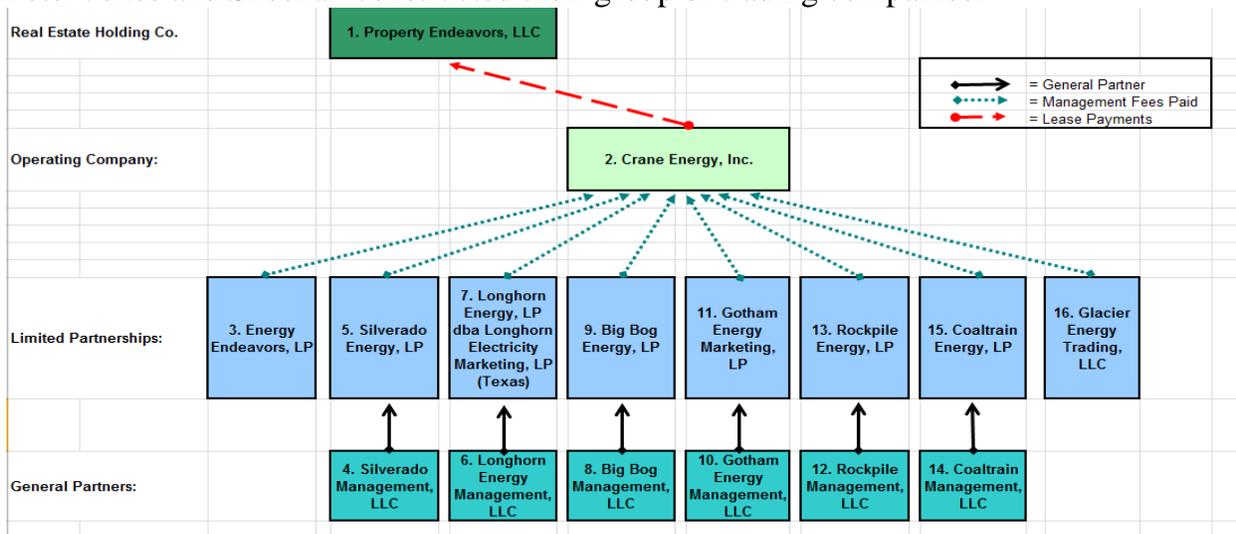
¹² P. Jones Sept. 16, 2010 Test. Tr. 18:18-20:22 (P. Jones Test. Vol. I).

¹³ Bates Nos. COALTRAIN0000691, COALTRAIN0000692.

¹⁴ Bates Nos. COALTRAIN0000602, COALTRAIN0000606, COALTRAIN0000782, COALTRAIN0000649, COALTRAIN0000651, COALTRAIN003509. *See* FERC Docket No. ER09-594. Coaltrain Energy LP is a Delaware limited partnership, with Jones and Sheehan as limited partners, and Coaltrain Management LLC (a Delaware limited liability company) as the general partner, and Jones and Sheehan as the limited partners. Jones and Sheehan jointly own and control Coaltrain Management LLC.

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

Peter Jones and Sheehan constructed their group of trading companies:¹⁶



Coaltrain was based in Delaware when the manipulative trading began, and moved to Pennsylvania in August 2010. Coaltrain ceased doing business in April 2011, when Jones and Sheehan ended their business partnership and founded their own new sets of companies that continue to trade in jurisdictional markets today.¹⁷ Between August 2010 and August 2014, Peter Jones and Sheehan withdrew more than \$33 million from Coaltrain, leaving the company with few remaining assets.¹⁸

The other Named Individuals—traders Jeff Miller, Jack Wells, and Robert Jones, and analyst Adam Hughes—worked for Coaltrain in the summer of 2010. All had ample experience in the energy markets by that time. Adam Hughes had worked as a power market analyst since 2002, and joined Energy Endeavors as a software engineer in 2006.¹⁹ Jeff Miller joined Energy Endeavors as a trader in 2007 after a career in nuclear energy.²⁰ Robert Jones joined Energy Endeavors as a market analyst and trader in late 2008.²¹ Jack Wells joined Energy Endeavors as an analyst and trader in late 2008 after a career in nuclear power.²²

¹⁶ Bates No. COALTRAIN003509.

¹⁷ Peter Jones owns and operates the Monterey companies, which appear to have one subsidiary trading in each of the organized markets. Sheehan owns and operates the XO Energy companies, which also appear to have separate subsidiaries that trade in each of the organized markets.

¹⁸ Bates Nos. COALTRAIN011829, COALTRAIN011849.

¹⁹ Hughes Test. Tr. 11:9-13:1.

²⁰ Miller Test. Tr. 12:25-13:18.

²¹ R. Jones Test. Tr. 12:17-13:2.

²² Wells Test. Tr. 12:25-14:15.

The following description of the PJM market, UTCs, and MLSA payments is drawn from the Commission's description in *City Power*.²³

B. The PJM Market

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 electric power in a 13-state region extending from Illinois to North Carolina.²⁴ 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).

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.

In addition to physical transactions, which are premised on the actual delivery of electricity, PJM offers various virtual products, including UTCs,²⁵ for which no generation is dispatched and no load is served, and obligations are met through cash settlement. Virtual products are designed to increase market liquidity, drive convergence between the day-ahead and real-time market prices,²⁶ and provide vehicles for hedging.

²³ *City Power*, 152 FERC ¶ 61,012 at PP 15-26.

²⁴ 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 8, 2015).

²⁵ 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. However, a virtual transaction is integrated into PJM's Day-Ahead (DA) pricing model, and thereby may affect DA prices as well as which units are dispatched.

²⁶ 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 IMM, "price convergence does not

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: (1) be the price setting marginal factor in determining day-ahead LMPs; (2) affect day-ahead dispatch; and (3) affect other market participant positions.²⁷

C. PJM's Up-To Congestion Product

UTCs were initially created as a tool to hedge congestion price risk associated with physical transactions,²⁸ 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.²⁹ 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.”³⁰ Thus, “cleared UTC transactions in the direction of congestion are profitable when [r]eal-time congestion is greater than [d]ay-ahead congestion. In the counter-flow direction, UTC transactions are profitable when [r]eal-time congestion decreases or reverses from the counter-flow direction toward the direction of congestion.”³¹

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.³² Second, financial traders use them as a “purely virtual product.”³³ Specifically, arbitrageurs can

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, sec. 2 pt. 1 (Mar. 10, 2011), available at http://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2010/2010-som-pjm-volume2-sec2.pdf.

²⁷ 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.

²⁸ *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”).

²⁹ *PJM Interconnection, L.L.C.*, 144 FERC ¶ 61,121 at P 19.

³⁰ *PJM Interconnection, L.L.C.*, 148 FERC ¶ 61,144, at P 3 n.8 (2014).

³¹ *Id.*

³² *PJM Interconnection, L.L.C.*, 144 FERC ¶ 61,121 at P 3.

³³ *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”).

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.³⁴

UTCs, like other virtual products, can promote market efficiency because, as we have recognized, virtual products “increase[] market liquidity and [create] price convergence between the day-ahead and real-time markets.”³⁵ 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.³⁶

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. All of Respondents’ UTC transactions at issue here were submitted as wheel UTCs during the Manipulation Period.

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.³⁷ However, the PJM tariff did not require that the transmission service reservation associated with a UTC be on the same path as the

³⁴ *Black Oak Energy, L.L.C. v. PJM Interconnection, L.L.C.*, 122 FERC ¶ 61,208, at P 50 n.85 (2008).

³⁵ *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.”).

³⁶ *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”).

³⁷ PJM Referral at 2, 4. In 2010, this type of transmission service cost a maximum of \$0.67 per MWh to reserve on OASIS, although exports to the Midcontinent Independent System Operator, Inc. (MISO) were not assessed a transmission fee. UTC traders also paid for reactive power, black start, and certain market charges that on average amounted to \$0.21 for each MWh successfully scheduled.

UTC.³⁸ Moreover, reserved transmission with a Midcontinent Independent System Operator, Inc. (MISO) point of delivery,³⁹ unlike other points of delivery, was not assessed any transmission fees,⁴⁰ but also was not eligible for MLSA. In 2010, Respondents reserved non-firm point-to-point transmission for their UTC trades. While Respondents knew they were permitted to reserve capacity with a MISO point of delivery for most of the OCL Strategy trades they scheduled to avoid being assessed transmission fees—and they also knew how to use “overscheduling” to reduce their costs when they had to pay to reserve transmission—Respondents did not do so for any of the trades at issue here and, instead, incurred unnecessary transmission fees.⁴¹

D. Marginal Loss Surplus Allocation

At the time of Respondents’ conduct, all UTC transactions associated with transmission service in PJM were eligible to receive a portion of MLSA payments. MLSA refers to the PJM-developed and Commission-accepted distribution to market participants of the surplus revenues that PJM collects for transmission line losses.

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, and the more congested such a line becomes, the greater the loss.⁴² In calculating the cost of

³⁸ PJM Response to Data Request 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.”).

³⁹ 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.

⁴⁰ 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).

⁴¹ For example, Respondents used free transmission to schedule two days’ of SouthImp-Exp trades in June, and to schedule several NCMPImp-Exp transactions in early July, so they actually knew they could avoid paying for transmission to schedule those trades. Nevertheless, they subsequently chose to use nothing but paid transmission to schedule those trades, and thereby they voluntarily increased their transmission costs for no reason other than to be eligible for MLSA payments.

⁴² See *Atlantic City Elec. Co. v. PJM Interconnection, L.L.C.*, 115 FERC ¶ 61,132, at P 3 (2006) (“As in the case of all electric transmission, there is some loss of the scheduled megawatts as the power is transmitted from the point of generation to the point of delivery. That is, the total megawatt-hours of energy received by customers is less than the total megawatt-hours of energy produced by generators. Such loss results in a cost PJM incurs to maintain the level of the scheduled power and to deliver it under conditions of system reliability.”).

line loss, as part of LMP, PJM sets the price at marginal cost, rather than average cost.⁴³ 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.⁴⁴

The Commission recognized that “a method needs to be determined for disbursing the over collected amounts” of line loss payments.⁴⁵ 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 megawatts (MW) 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.⁴⁶

Mathematically, MLSA was calculated hourly as a market participant’s eligible MWhs (*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 transmission reservations). Under this distribution mechanism, as a market participant’s cleared UTC transactions increased, its transmission reservations increased and, thus, its share of the available MLSA also increased (while inversely decreasing the available MLSA for other market participants).

E. PJM and Market Monitor Referrals

In late July 2010, PJM and its Independent Market Monitor (IMM) discovered that certain traders, including Coaltrain, had entered into large volumes of UTC transactions that appeared to lack economic rationale and to have the purpose of profiting from MLSA payments rather than from price arbitrage. PJM and the IMM identified several types of UTC trades that were unprofitable but for MLSA payments. Upon discovering this scheme, PJM promptly filed a proposed tariff change to mechanically eliminate the scheme by removing the requirement that UTC transactions reserve transmission on OASIS (and therefore making all UTC trades ineligible for MLSA payments). The Commission approved this amendment on September 17, 2010.⁴⁷ PJM and the IMM also referred these market participants to the Office of Enforcement.

⁴³ *Id.* P 4.

⁴⁴ *Id.* P 5.

⁴⁵ *Id.* P 24.

⁴⁶ *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.* (“The Commission finds that PJM’s proposal is a just and reasonable method of allocating the surplus, subject to the condition that PJM clarify that its tariff complies with our finding that payments be made only to those who pay for the costs of the transmission grid.”).

⁴⁷ *PJM Interconnection, L.L.C.*, 132 FERC ¶ 61,244 (2010).

1. PJM Referral

The PJM referral was prompted by a market participant who contacted PJM on July 23, 2010, and advised that Coaltrain and City Power had “purchased 1,500 MW of Non-Firm Point-to-Point transmission service in certain hours, and questioned whether the market participants in question were ‘trying to game the system in some way’ by ‘trying to lock people out of transmission purchases.’”⁴⁸ PJM confirmed that several market participants, including Coaltrain, had reserved large quantities of transmission and discovered that such reservations were associated with high volumes of UTC bids, beginning on June 1, 2010.⁴⁹ PJM stated that “[t]he participants involved in this behavior intentionally submitted large volumes of Up-To Congestion transactions for no purpose other than to illegitimately collect larger allocations of the marginal loss surplus.”⁵⁰ After its preliminary investigation, PJM identified two of Coaltrain’s trades as illegitimate: SouthImp-Exp and NCMPImp-Exp.⁵¹ PJM also believed that Coaltrain had submitted the second-largest volume of these illegitimate trades (after Powhatan Energy Fund, LLC).⁵²

PJM described Respondents’ 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 Up-To Congestion 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 then explained:

The illegitimacy of these transactions is made very obvious in some cases because the source and sink chosen for submission of the Up-To Congestion transaction bore no relationship to the Point-of-Receipt (“POR”) and/or Point-of-Delivery (“POD”) on the transmission reservation to which it was linked. For example, one such reservation (in the amount of 1,000 MW per hour) had a POR of MISO and a POD of NYISO, but a

⁴⁸ PJM Referral at 1. Another market participant contacted PJM on July 28, 2010, with a similar complaint. *Id.*

⁴⁹ *Id.* at 1.

⁵⁰ *Id.* at 2.

⁵¹ *Id.* at 3.

⁵² *Id.* at 5.

⁵³ *Id.* at 2.

⁵⁴ *Id.*

⁵⁵ *Id.*

source of SOUTHIMP and a sink of SOUTHEXP. The SOUTHIMP source does not map to the MISO POR, and the SOUTHEXP sink has no relationship to the NYISO POD. The correct source/sink for this transaction would be the MISO and NYISO interfaces, respectively.⁵⁶

PJM asked Enforcement to investigate the conduct and to require Respondents to disgorge “any and all marginal loss revenue that they have received since June 1, 2010 as a result of their gaming transactions.”⁵⁷

2. IMM Referral

On January 6, 2011, Monitoring Analytics, the IMM for PJM, followed up an earlier oral referral by submitting a written referral (IMM Referral) that also named Coaltrain. After its preliminary investigation, the IMM identified the named participants’ (including Coaltrain) market behavior as trades that had a “manipulative effect on market prices, market conditions or market rules.”⁵⁸ As the IMM explained:

The value of the underlying transactions completely, or nearly completely, cancel out, creating a net benefit only to the extent that the entitlement to an allocation of marginal losses exceeds the cost of transmission service and any applicable ancillary service charges. These transactions exploit the marginal loss allocation rules implemented by PJM to derive a benefit from transactions with no fundamental economic rationale or value.⁵⁹

With regard to Respondents’ SouthImp-Exp trades, the IMM explained that there was no price difference between the nodes in the Day-Ahead or Real-Time markets, and therefore “[t]his activity had no basis in market fundamentals and would have been irrational but for the allocation of marginal loss surplus.”⁶⁰

With regard to Respondents’ NCMPImp-Exp trades, the IMM explained that its “LMPs ... were close to equal. These transactions had no economic rationale and were entered into solely for the purpose of receiving a marginal loss surplus allocation.”⁶¹ The IMM noted that, with the exception of one, no market participants had ever done any trades at NCMPImp-Exp prior to the change in MLSA rules (Coaltrain was not the one exception),⁶² and calculated that the average LMP difference between the DA and RT markets from January 1, 2010 through September 30, 2010 amounted to only two cents, stating that “[t]he relatively small net balancing LMP differences for these interfaces is

⁵⁶ *Id.* at 2.

⁵⁷ *Id.* at 6.

⁵⁸ IMM Referral at 1.

⁵⁹ *Id.* at 3.

⁶⁰ *Id.* at 15.

⁶¹ *Id.* at 16.

⁶² *Id.* at 18.

additional evidence that these transactions were entered into solely for the purpose of receiving a marginal loss surplus allocation.”⁶³ The IMM concluded:

Although the net profits were smaller for this strategy, the fact that Coaltrain Energy, City Power Marketing and [...] also engaged in the SouthImp/SouthExp strategy is additional evidence that the activities here were intentional efforts to manipulate. Because there is no economic substance to the [NCMPAImp-Exp] transactions ..., the Market Monitor finds sufficient credible evidence of a Market Violation, concludes its investigation of these companies, and refers this matter to the Commission for such further action as the Commission deems appropriate.⁶⁴

F. Office of Enforcement Investigation

On August 25, 2010, the Commission ordered a non-public, formal investigation of Coaltrain’s gaming transactions.⁶⁵

Enforcement sent several data requests to Coaltrain beginning in August 2010. In June 2012, Enforcement discovered from a former Coaltrain employee that Respondents had failed to produce an enormous set of documents that were highly relevant to the matters under investigation and responsive to Enforcement’s prior data requests. As it turned out, for nearly two years Respondents had failed to tell Enforcement that before, during, and after the summer of 2010, Coaltrain had deployed computer monitoring software, called Spector 360, that had recorded every keystroke (saved as text files) and made screenshots every twenty seconds of every monitor (saved as image files) on the work *and* home computers of every employee other than the co-owners, Peter Jones and Sheehan. Enforcement then asked Respondents to produce the missing materials. Respondents admitted that they still retained the data, but they at first refused to produce it by falsely denying that they could access the Spector 360 materials. Respondents belatedly produced the materials only after Enforcement arranged with the software manufacturer to give Respondents a new license at no cost. Once produced, the Spector 360 documents proved to be an enormous trove of responsive and relevant materials—about 10 gigabytes per employee during the summer of 2010. Enforcement subsequently discovered that Respondents had made other material omissions and false and misleading statements with respect to documents other than those recorded by Spector 360.

On September 25, 2014, Enforcement provided Respondents with the Preliminary Findings letter (PF Letter). On May 15, 2015, Respondents submitted a written response to the PF Letter, attaching a report drafted by a consultant they had engaged (PF Response). In the wake of the Commission issuing penalty assessment orders in *Chen* and *City Power*, Respondents provided a supplemental presentation on September 10,

⁶³ *Id.* at 20.

⁶⁴ *Id.*

⁶⁵ *PJM Up-To Congestion Transactions*, 132 FERC ¶ 61,169 (2010).

2015, and submitted a supplemental response to the PF Letter on September 11, 2015. The Office of the Secretary issued a Notice of Alleged Violations on September 11, 2015. When settlement discussions proved unavailing, Enforcement provided notices under section 1b.19 of the Commission's regulations⁶⁶ of its intent to recommend the initiation of a public proceeding against Respondents. On October 19, 2015, Respondents provided responses to Enforcement's section 1b.19 letter (1b.19 Responses), and Coaltrain supplemented its response on October 30, 2015 (1b.19 Supp. Resp.).

III. Facts

Respondents had long experience trading UTCs in PJM, and the company had made millions of dollars from non-manipulative UTC trades aimed at profiting from the arbitrage of DA and RT prices. In the summer of 2010, however, Respondents added a new and fundamentally different strategy—the OCL Strategy—in which they made trades on UTC paths with unprofitable zero or near-zero price spread to increase their MWh trading volume so as to increase their MLSA payments.

What follows is a description of the two strategies.

A. Spread Strategy Trades (until 2011)

For several years, including throughout 2010, Coaltrain (and its predecessor company, Energy Endeavors) made UTC trades in PJM aimed at making a profit by correctly predicting changes in spreads between the DA and RT markets on a pair of nodes. This "Spread Strategy" appears to have been fully consistent with the numerous public statements by the Commission and PJM that UTC trades were intended to promote price convergence by creating an incentive for traders to make money by anticipating instances when the RT market price spread would diverge from the DA market price spread. Coaltrain was very successful at Spread Strategy UTC trading, earning tens of millions of dollars of profits from this strategy in PJM UTC trades over the years: according to the company's documents, Coaltrain (and Energy Endeavors) earned profits of \$12.8 million on PJM UTC trades alone in 2008, nearly \$880,000 in 2009, and \$18.7 million in 2010.⁶⁷

⁶⁶ 18 C.F.R. § 1b.19 (2015).

⁶⁷ Bates Nos. COALTRAIN000001-9. Overall, including their virtual (Incs and Decs) and physical trades, Coaltrain/Energy Endeavors made a profit of \$16.49 million in PJM in 2008, \$3.67 million in 2009, and \$26 million in 2010. *Id.*

One of the principal features of Respondents' success with Spread Strategy UTC trades was their focus on constraints.⁶⁸ A constraint, as they defined it, is a reported problem in the system.⁶⁹ As Wells testified:

Constraints reflect a problem moving power from one point to another. PJM's response to a constraint is to try to stop moving flow down that line.... So what PJM does is they say we will give you money to take a different road, and so they manipulate LMPs to try to get people off of that path and go on a different path. We buy or sell in response to anticipation of those movements in prices. Like I said earlier, if you buy and sell such that you're selling things that the price as the price is going up and you're buying things as the price is going down, when you consolidate your real-time with the day-ahead, you make money or lose money, depending upon whether you guess right or not. That's why we're interested in constraints, because constraints move prices.⁷⁰

Respondents built a library of how different constraints affected different nodes. Then they would assess which constraints they believed would be in effect the following day. This allowed them to estimate how a particular pricing pair would act in the following day. As Wells explained, "[c]ongestion trades are done in anticipation of a problem developing as a result of some action that's going to take place based upon information that we have available."⁷¹ This was, at its heart, a non-manipulative strategy that entailed an intensive analysis of market fundamentals

Respondents knew that UTC trades were intended to be spread trades that profited from the arbitrage of DA and RT prices:

- **Peter Jones:** "If in the real-time the spread value exceeds the cost of the day-ahead price, then you'll make money ... if it's less than the cost of the day-ahead, then you lose money on it."⁷²
- **Adam Hughes:** "By definition, it is a spread trade between the source and the sink."⁷³
- **Shawn Sheehan:** "An up-to congestion project is essentially a spread bid between two points."⁷⁴

⁶⁸ See, e.g., P. Jones Test. Vol. I Tr. 39:19-40:5.

⁶⁹ See, e.g., P. Jones Test. Vol. I Tr. 65:6-9; P. Jones Sept. 5, 2013 Test. Tr. 14:17-25 (P. Jones Test. Vol. II).

⁷⁰ Wells Test. Tr. 49:18-50:13.

⁷¹ Wells Test. Tr. 34:3-17.

⁷² P. Jones Test. Vol. I Tr. 33:8-13. See also *id.* 67:12-13 ("Well, it's an up-to transaction, yeah. It's a spread.").

⁷³ Hughes Test. Tr. 161:19-25.

⁷⁴ Sheehan Test. Tr. 51:23-24.

- **Jeff Miller:** “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.”⁷⁵
- **Robert Jones:** “The difference between the day-ahead and real-time LMP, between the two points.”⁷⁶
- **Jack Wells:** “If you buy something in the day-ahead, you sell it in the real-time. If you sell something in real-time, you buy it back in the real-time. So in both cases, it would be a delta between a day-ahead and a real-time price that may be based on congestion or something else. But what we’re looking for is typically congestion as a result of our analysis.”⁷⁷

Respondents also knew that at times they had to pay OASIS reservation charges to schedule UTC transactions—and, importantly, long before the summer of 2010 they plainly knew at least three ways to avoid or reduce their costs to reserve transmission: (1) scheduling exports to MISO (which used free transmission); (2) scheduling wheel-through UTC deals that used MISO as the sink (thus using free transmission);⁷⁸ and (3) by “overscheduling” their UTC trades that had to use paid transmission. “Overscheduling” allowed Respondents to enter a different volume of UTC trades than they had reserved on OASIS, although only the MWh volumes reserved on OASIS qualified for MLSA payments.⁷⁹ For instance, Respondents might reserve 100 MWh in OASIS, but actually schedule 200 MWh of UTC trades based on the same reservation ID number. Respondents frequently used “overscheduling” to reduce their Spread Strategy transaction costs (because it reduced their transmission reservation costs). Thus, Respondents were aware of several means to avoid or reduce substantially their transaction costs, and they often used these methods for their Spread Strategy trades. As will be seen below, they did the opposite with their OCL Strategy trades.

Between June 15 and September 2, 2010 (the period when they were also executing the OCL Strategy, discussed below), Respondents made more than 38,000

⁷⁵ Miller Test. Tr. 22:15-18.

⁷⁶ R. Jones Test. Tr. 20:1-2.

⁷⁷ Wells Test. Tr. 32:18-24.

⁷⁸ See *City Power*, 152 FERC ¶ 61,012 at P 22 (“reserved transmission with a Midcontinent Independent System Operator, Inc. (MISO) point of delivery, unlike other points of delivery, was not assessed any transmission fees”); PJM Response to Enforcement Data Request 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.”).

⁷⁹ See Wells Test. Tr. 39:24-40:11, 96:11-24; R. Jones Test. Tr. 32:3-9.

separate Spread Strategy trades on 248 separate UTC paths, and cleared a total trading volume of 2.1 million MWh (of which only 1.3 million MWh were reserved on OASIS (the remaining MWh were “overscheduled”) and just 386,000 MWh (about 18%) were eligible for MLSA payments), with an average bid price of \$4.47. They earned \$1.73 million in UTC (spread) revenues on these non-manipulative trades and, because they used paid transmission for only 18% of those trades by (cleared) volume, they paid \$434,000 in transaction costs and received \$558,000 in MLSA payments. Their average Spread Strategy transaction during this period was for about 70 MWh (including their “overscheduled” volumes).⁸⁰

B. OCL Strategy in Addition to Spread Strategy (June-September 2010)

Between June 15 and September 2, 2010 (“OCL Period”), Respondents devised and executed a new UTC trading strategy that was fundamentally different from their ordinary Spread Strategy. They called this the OCL Strategy (for “Over Collected Losses”). The term “OCL Strategy” was used by Respondents in their internal documents, and thereby identified every single UTC path at issue in this proceeding.⁸¹

The OCL Strategy was not aimed at making a UTC profit from arbitraging price spreads. Rather, as its name implies, the purpose was to profit from the OCL (*i.e.*, MLSA), much as the Spread Strategy was intended—again, as its name implies—to profit from the difference between the DA and RT price differentials. As Jack Wells testified, OCL Strategy trades “**are not really congestion-based trades.**”⁸² In fact, Respondents used their sophisticated constraint-based analysis only “for up-to trades that are based on congestion” whereas the OCL Strategy “**has no concern with this at all.**”⁸³

1. Overview of the OCL Strategy:

*“almost exactly the opposite of a normal analysis”
(Jack Wells testimony, July 19, 2013)*

The OCL Strategy was vastly different from the Spread Strategy in that it involved identifying paths which were expected to have reliably zero or near-zero price spreads, which is precisely the opposite of an arbitrage-based UTC trade.

In response to Enforcement’s Third Data Request, Respondents defined the OCL Strategy as “a trade that settlement considerations had the potential to make profitable if a

⁸⁰ See *supra* text accompanying note 8. Respondents’ “overscheduling” for Spread Strategy trades meant that they routinely cleared more MWh of UTC trades than they had reserved in OASIS. For that reason, they actually cleared 2.1 million MWh of trades for the Spread Strategy even though they only reserved 1.3 million MWh.

⁸¹ All of the trades at issue in this proceeding were flagged by Respondents as OCL Strategy trades, but Enforcement is recommending that the Commission proceed only against a subset of the trades.

⁸² Wells Test. Tr. 32:25-33:19 (emphasis added).

⁸³ Wells Test. Tr. 50:14-22 (emphasis added). Wells called the OCL Strategy “low risk.”

dynamic constraint did not make it profitable on its own.”⁸⁴ In practice, this meant that OCL Strategy trades were intended to make money from the MLSA (“settlement considerations”) and not from price spread arbitrage (“dynamic constraint”). Put simply, these trades lost money as UTC trades, and Respondents knew they would. Yet repeatedly and continually losing money on the OCL Strategy trades based on the price spread and transaction costs did not deter Respondents from repeatedly and continually placing huge volumes of trades on these money-losing paths day after day for several months. Not only that, but they voluntarily *increased* their transaction costs for most of the OCL Strategy trades (by volume) by using paid transmission.⁸⁵

Why did Respondents knowingly and voluntarily increase their transaction costs *and* continue to place enormous volumes of trades on paths that were likely to lose money on the price spread? Because, as the evidence shows, they specifically chose paths whose volatility and risk was so low that they could safely increase their trading volume in order to collect more MLSA (which was paid on a per-MWh basis). And they did an enormous volume of these trades: between June 15 and September 2, 2010, Respondents placed 4.6 million MWh of OCL Strategy trades.⁸⁶ (To put this volume into perspective, Respondents cleared about 6.66 million MWh of UTC trades between June 1, 2009 and June 14, 2010, so the OCL Strategy trades amounted to them making, in a span of just ten weeks, about 69% of the previous year’s entire volume.) At first glance, the OCL Strategy would seem to have been a failure, as Respondents lost over \$96,000 on the price spreads and \$3.93 million overall when including transaction costs. But in fact it was a success because they thereby laid claim to \$8.05 million in MLSA payments thanks to the enormous volumes of those trades and the corresponding paid for transmission, and thus made a net “profit” of \$4.12 million.⁸⁷

Not surprisingly, Respondents employed a completely different type of analysis for their OCL Strategy trades compared to their Spread Strategy. As Wells testified, the OCL Strategy analysis was “almost exactly the opposite of a normal analysis where I said these guys are shutting this plant down, these guys are taking this transmission line out of service, these guys are doing whatever, so I think I’m going to have a problem between these points.”⁸⁸ Instead of using their normal constraints-based analysis to identify arbitrage opportunities, Respondents used a database filter to identify trades

⁸⁴ Coaltrain Resp. to Question 15 of Third Data Request (May 25, 2012).

⁸⁵ The OCL Strategy paths that were sunk at interfaces were compatible with free and paid transmission, and in fact Respondents made some OCL interface trades using free trades by mistake. The OCL trades that sunk at internal points within PJM required paid transmission, but in fact Respondents had never traded on those paths until the summer of 2010, strongly indicating that they selected the trades only for OCL purposes.

⁸⁶ See *supra* text accompanying note 8.

⁸⁷ See *supra* text accompanying note 8.

⁸⁸ Wells Test. Tr. 100:14-101:5.

that had never cost a whole lot [*in the Day-Ahead Market*], didn't generally return a whole lot, but they generally returned more than they cost [*when including MLSA*]. And typically, they weren't things that got hit by much of anything. So they were kind of in areas that weren't high-activity areas, I mean not high-congestion areas. So those we strictly developed off of the filter run on a day-to-day basis.⁸⁹

As Wells explained further, “[t]he whole idea was that it doesn't cost a lot. It doesn't have the potential to lose a lot.”⁹⁰ Wells also agreed that the OCL Strategy looked for trades in which MLSA payments could turn a path that was not profitable as arbitrage into a net money-maker:⁹¹

My filter shows that I'm getting paid a net, whether I'm getting paid that for loss credits, getting paid to take the trade. The net just shows me that the net is positive, and if there's not a lot of risk associated with it, then that would be a good [OCL Strategy] trade.⁹²

Because the spreads were reliably minimal at best, they could trade more volume. As Wells explained, “[i]f a trade is lower risk and I'm less concerned about losing money, I could possibly be more likely to play more megawatts or play more hours.”⁹³ Since MLSA was paid on a per-MWh basis, Respondents could increase their MLSA profits only by increasing their OCL Strategy trading volume.

In contrast to the Spread Strategy that involved a complicated analysis using congestion-based constraints, the OCL Strategy did not rely on constraints at all.⁹⁴ To make it appear as if they were doing the same thing, Respondents developed a series of fake constraints (which they sometimes called “secondary constraints”—as opposed to “primary” constraints) that they typically associated with their OCL Strategy trades. But these “secondary” constraints were not real. As Wells explained, “[a] primary constraint is a constraint that, I think, has a potential due to some manipulation of the equipment, be it the power plant going up or down or a transmission line going in or out of service.”⁹⁵ But that was not so with secondary constraints: “[i]n the case of secondary constraint, I'm not looking at any system changes. I'm running this filter every morning... unless it

⁸⁹ Wells Test. Tr. 118:1-18.

⁹⁰ Wells Test. Tr. 191:2-19.

⁹¹ Wells Test. Tr. 142:13-143:8.

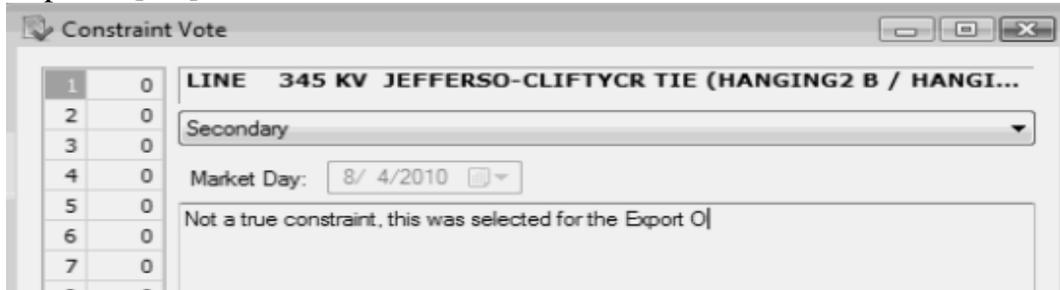
⁹² Wells Test. Tr. 187:16-188:11. *See also id.* 131:2-11 (“I believe we ran these low-risk filters to see something that gave us a net return, but we didn't want a net return that was less than what it cost us to execute the trade. So the net return had to be greater than zero, including the cost of buying transmission and line losses and whatever.”).

⁹³ Wells Test. Tr. 119:5-17.

⁹⁴ Wells Test. Tr. 33:6-34:17.

⁹⁵ Wells Test. Tr. 164-7-22.

meets my criteria, which is the price is small, I cannot see a lot of risk associated with it, then it's going to get filtered out.”⁹⁶ For instance, in a communication preserved by Spector 360, Wells warned his colleagues that a particular constraint associated with a proposed OCL Strategy trade was “[n]ot a true constraint” but was “selected for the Export O[CL]”:⁹⁷



Similarly, Wells wrote in a contemporaneous note that one secondary constraint was “strictly for the OCL plays.”⁹⁸

Another of these so-called “secondary” constraints was actually called “PJM OCL.” That “constraint” had no physical existence in the system, as Peter Jones testified,⁹⁹ and did not describe any anticipated effect on congestion. In fact, Respondents later conceded that “PJM OCL” was a “null” constraint—it did not relate to any anticipated physical constraint in the system.¹⁰⁰ Instead, it was merely a placeholder, a way for traders to put an OCL Strategy trade on the blotter.¹⁰¹ The fake “PJM OCL” constraint appears to have been created by Adam Hughes on or about June 17 when, according to the keystroke data captured by Spector 360, he added “PJM OCL, null” to the list of PJM constraints.¹⁰² Accordingly, Respondents used the secondary constraint analysis to flag paths with small price changes and high ratios of transmission costs to

⁹⁶ Wells Test. Tr. 167:23-168:16.

⁹⁷ Wells Test. Ex. 63. The full text of Wells’s statement (as captured by Spector 360’s keystroke function) reads: “Not a true constraint, this was selected for the Export OCL plays which all go to OVEC.” Bates No. COALTRAIN012652, Jack Wells 8:36:13 a.m. (Aug. 3, 2010).

⁹⁸ Wells Test. Ex. 68.

⁹⁹ P. Jones Test. Vol. II Tr. 47:4-48:3 (“it doesn’t relate to constraint analysis. It relates to the transaction, the potential transaction.”).

¹⁰⁰ See Coaltrain Suppl. Resp. to Enforcement Sept. 9, 2013 Subpoena, Question 1 (Aug. 5, 2015) (“Because the ‘PJM OCL’ constraint was not an actual transmission constraint on the PJM system, it did not contain pricing data”).

¹⁰¹ Miller Test. Tr. 169:2-18.

¹⁰² Bates No. COALTRAIN012639, row 560.

MLSA payouts.¹⁰³ Unlike the primary constraint, the secondary constraint was not tied to any anticipated physical constraint in the system.

Several other factors show that the OCL Strategy trades targeted MLSA and were not focused on arbitraging the price differentials between the DA and RT spreads. First, the trade data demonstrate that the OCL Strategy trades were bad trades when evaluated by price differentials and transaction costs. Historically, these OCL paths experienced little or no price spread—and even the ones that showed any spread wouldn't have been profitable without MLSA payments. Moreover, the evidence from Spector 360 shows that Respondents knew that the OCL trades experienced little or no price spread—certainly nothing that promised profitability after paying costs, much less that justified putting tens and hundreds of thousands of MWh on those same money-losing trades day after day, month after month. Indeed, as Peter Jones testified in 2010, Respondents kept entering hundreds of thousands of MWh of trades on SouthImp-Exp—a trade that never once experienced any price divergence while they traded it over a period of six weeks—because “[i]t was an economically feasible trade for us to transact . . . [because t]he cost of the trade and, you know, the fact that the market settlement charges and credits have the potential to balance each other out.”¹⁰⁴ It was only “economically feasible” because the MLSA payments created a profit where profit was otherwise impossible.

Also, Respondents intended the OCL Strategy to target MLSA payment. For instance, Adam Hughes stated in an internal note on June 15 (in a set of keystrokes captured by Spector 360) that he was working to “create [an] application to find deals for loss credits.”¹⁰⁵ Finding deals for loss credits is fundamentally different from finding deals for price spreads.

Finally, Respondents structured their OCL Strategy trades differently from their Spread Strategy trades. As an initial matter, Respondents used paid transmission far more frequently with OCL trades than with their Spread Strategy trades—nearly 100% of OCL Strategy trade volumes were MLSA-eligible (*i.e.* they paid for transmission) as compared to less than 20% of Spread Strategy volumes reserved at the same time (*i.e.*

¹⁰³ Respondents apparently used such “fake” constraints as a convenient way to save trades in their internal computer system. For instance, in early October 2010, Hughes exchanged instant messages with another employee in which the other employee asked “wtf is this constraint ‘Low Risk Reward’” to which Hughes responded “[f]ake thing that Shawn made me add ... [s]o he could save trades to it.” Bates No. COALTRAIN012758.

¹⁰⁴ P. Jones Test. Vol. I Tr. 95:9-16. This was a misleading statement, because Respondents’ intent was not to net out charges and credits so they would “break even” or “balance each other out.” To the contrary, Coaltrain intended to profit off the credits (that is, the MLSA credit). And, in fact, Coaltrain actually netted approximately \$1 per MWh transacted on SouthImp-Exp, and all of that profit was from MLSA.

¹⁰⁵ Bates No. COALTRAIN012638, row 1951. *See also* Bates No. COALTRAIN012639, row 27.

summer of 2010):¹⁰⁶

Volume Differences Between Spread Strategy and OCL Strategy June 15, 2010 - September 2, 2010								
Group	Bid Count (#)	Amount Bid (MWh)	Average Bid Price (\$)	Amount Cleared (MWh)	Percent Cleared	Amount Reserved (MWh)	Percent Reserved	MLSA Eligible (MWh)
OCL Strategy	11,726	4,672,448	\$1.07	4,649,891	99.5%	4,618,002	99.3%	4,610,158
Spread Strategy	38,262	2,704,206	\$4.47	2,102,859	77.8%	1,326,438	63.1%	386,068

What this shows is that the OCL Strategy trades involved fewer, but larger, transactions than the Spread Strategy trades, and had much lower bid prices yet cleared at much higher rates (reflecting the lack of price spreads on the OCL paths). Respondents also increased their transaction costs by using paid transmission with almost all OCL trades (thus making it even harder to realize profits due to higher transaction costs) but did so with only a small fraction of their Spread Strategy trades.

As the following table shows, Respondents' OCL Strategy trades were much less successful as Spread Strategy trades, and yet by voluntarily increasing their transaction costs they ended up losing even more money on the trades (before MLSA).¹⁰⁷ By contrast, their Spread Strategy trades were very successful at capturing the profit related to price differentials, and by keeping their transaction costs down, they were able to make significant profits absent MLSA:

Revenue Differences Between Spread Strategy and OCL Strategy June 15, 2010 - September 2, 2010					
Group	UTC Revenue	Revenue per MWh	OASIS & EES Charges	PnL (w/o MLSA)	MLSA
OCL Strategy	(\$96,716)	(\$0.02)	(\$3,834,457)	(\$3,931,173)	\$8,053,066
Spread Strategy	\$1,731,471	\$0.82	(\$434,286)	\$1,297,185	\$558,112

Put together, these metrics show that the OCL Strategy was fundamentally different from the Spread Strategy.

¹⁰⁶ In a handful of cases—about 2% of their OCL Strategy trades—Respondents executed OCL Strategy trades without making them MLSA-eligible. This happened on June 20-21 for SouthImp-Exp (involving 62,000 MWh of trades), and for two much smaller NCMPImp-Exp trades in early July. The company later conceded that it had been a mistake not to use paid transmission to schedule those SouthImp-Exp trades. See Coaltrain Resp. to Enforcement Fourth Data Request, Question 10 (Jul. 3, 2012). See *supra* text accompanying note 8

¹⁰⁷ See *supra* text accompanying note 8.

2. Inventing the OCL Strategy

*“Create Application to Find Deals for Loss Credits”
(Adam Hughes internal note, June 15, 2010)*

Respondents devised the OCL Strategy in early June 2010, after they became aware of the size of the MLSA. On June 1, 2010, PJM filed a *Report of Refund* that revealed the amount of retroactive MLSA it had paid to (or charged against) each market participant.¹⁰⁸ PJM reported it had refunded Energy Endeavors (Coaltrain’s predecessor company) nearly \$6 million in MLSA, and had refunded City Power nearly \$16 million. Later that morning, Peter Jones sent an instant message (IM) to K. Stephen Tsingas—City Power’s principal—to congratulate him for receiving so much money.¹⁰⁹

Following the release of PJM’s report, Respondents began to take a greater interest in MLSA. On June 3, Coaltrain’s Chief Financial Officer (John Charette) reviewed PJM’s website for information about MLSA. He downloaded the data and created a spreadsheet calculating the hourly rate at which MLSA was paid to Coaltrain during each hour of May 2010.¹¹⁰ Four days later, on June 7, Hughes and Sheehan exchanged instant messages to discuss MLSA. Sheehan wrote:¹¹¹

Adam Hughes: we have a table called ‘pjm_pnl_transmission_loss_credit’ but it doesn’t have transmission loss credits in it.

Shawn Sheehan: augh

Shawn Sheehan: any chance it will get the loss credits in it?

Adam Hughes: no idea. Will told Gary about it, so I assume he is working on it.

Adam Hughes: I am going to manually import the values into a temp table so I can finish my query

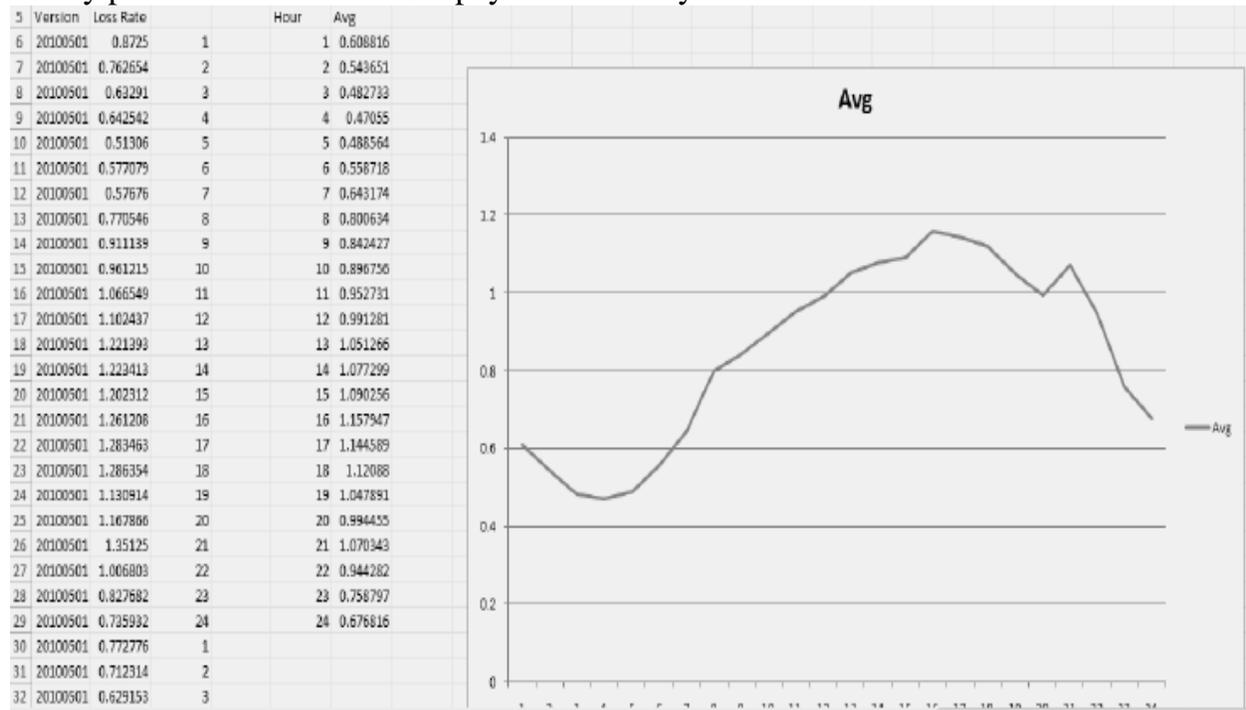
¹⁰⁸ P. Jones Test. Vol. II Ex. 22.

¹⁰⁹ P. Jones Test. Vol. II Ex. 23 (Bates No. COALTRAIN007075). In his second set of testimony, Jones stated that Tsingas was the recipient of this IM. P Jones Test. Vol. II Tr. 108:25-109:14. Jones and Tsingas had been colleagues at Conectiv Energy, and according to the IMs in *City Power*, Tsingas later discovered the “loss trades” scheme in large part by watching Coaltrain’s OASIS reservations after Coaltrain started executing the OCL Strategy.

¹¹⁰ Charette Spector 360 Screenshots (June 3, 2010 ca. 10:40 am).

¹¹¹ Bates No. COALTRAIN007889.

Hughes then opened the CFO's spreadsheet and created a graph that depicted the average hourly per-MWh rate of MLSA payments in May 2010:¹¹²



Later that afternoon, another IT employee provided Hughes with the information in a file called “New loss credit table.”¹¹³ Using this information, Hughes calculated that the company would have made more money had it voluntarily increased its transaction costs in order to be eligible for MLSA payments, and he created a chart showing that by netting “Trans Saved” (transmission costs saved) and “Losses Missed” (MLSA payments not received), the company effectively lost more than \$343,000 by not paying for transmission:¹¹⁴

	A	B	C	D	E
1		Trans Saved	Losses Missed		
2	3	\$161,209.86	\$244,777.32	\$ (83,567.49)	
3	4	\$265,383.98	\$423,702.98	\$ (158,319.08)	
4	5	\$111,018.29	\$212,455.28	\$ (101,437.05)	
5		\$537,612.13	\$880,935.57	\$ (343,323.61)	
6					
7					

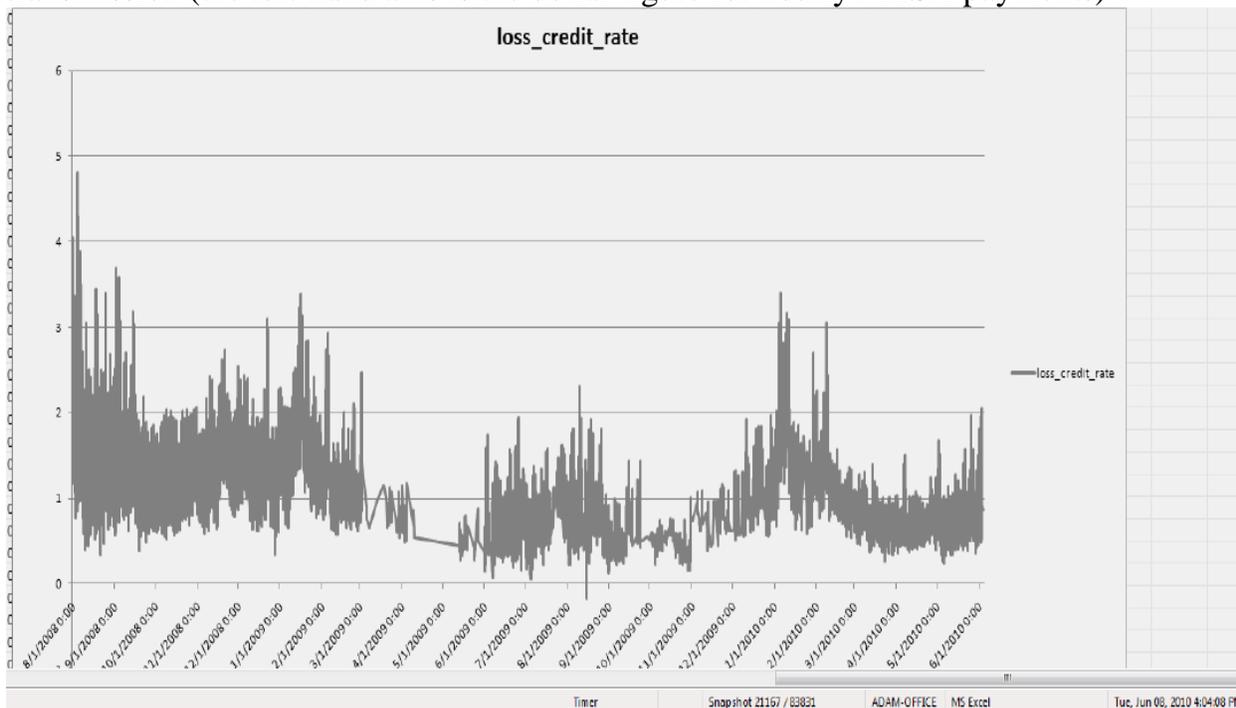
This was consistent with the chart that he created the next day (June 8), which showed that the hourly dollar amount of MLSA payments between 2008 and 2010 was almost

¹¹² Hughes Test. Ex. CT-9.

¹¹³ Bates No. COALTRAIN007202.

¹¹⁴ Hughes Test. Ex. CT-10.

always above the roughly 89-cent transaction cost of doing UTC trades using paid transmission (the left-hand axis is the dollar figure for hourly MLSA payments):¹¹⁵



Hughes also began designing a software application to analyze UTC trading in the context of MLSA payments; in his programming, he called this the “LossStrategy”¹¹⁶ that included a “LossFilter,”¹¹⁷ a “LossSorter,”¹¹⁸ and a “LossTester.”¹¹⁹ On June 9, Hughes created or revised a software application (which he called “Lost and Found”) that verified UTC paths and allowed traders and analysts to sort the paths according to various criteria, including MLSA eligibility.¹²⁰ By June 15, he added MLSA to the Node Analyzer, one of the primary applications that Coaltrain developed internally to analyze UTC trades.¹²¹ The purpose of all of this programming activity was, as Hughes himself wrote, to “**create [an] application to find deals for loss credits.**”¹²²

Around this same time, Coaltrain’s traders became more interested in MLSA and began developing a trading strategy to capture it. For example, Sheehan and Peter Jones

¹¹⁵ Hughes Test. Ex. CT-14.

¹¹⁶ Bates No. COALTRAIN0012638, row 1216.

¹¹⁷ *Id.*

¹¹⁸ *Id.* at row 1227.

¹¹⁹ *Id.* at row 1229.

¹²⁰ Hughes Test. Ex. CT-16; Hughes Test. Tr. 95:23-97:11.

¹²¹ Hughes Test. Ex. CT-31.

¹²² Bates No. COALTRAIN012638, row 1951 (emphasis added). *See also* Bates No. COALTRAIN012639, row 27.

exchanged IMs in which Sheehan lobbied in favor of a trade by explaining that the loss credits were about the size of the DA spread, “which ... means its [a] free trade.”¹²³ On June 7, Miller searched PJM’s website for information about over-collected losses, and the next day he performed several Google searches for the term “OCL”, and Sheehan searched “overcollected losses” on June 8 as well.¹²⁴ On June 9, Miller and Sheehan reviewed an internal spreadsheet called “LossFinder” that contained an assortment of UTC paths and their respective DA and RT price spreads, as well as information about the standard deviation associated with the DA and RT markets for each path.¹²⁵

The traders quickly developed a more cohesive understanding of how to alter their trading to target MLSA payments. On the early morning of June 10, Peter Jones, Sheehan, and Miller had a series of IM conversations that reveal that they had already devised the OCL Strategy, that the attractiveness of a proposed OCL Strategy trade was linked to the anticipated amount of the loss credits. Around 8:48 am, Miller asked Peter Jones (who was out of the office that day) what bid price to use on a trade that the traders appear to have been considering for the OCL Strategy. Jones responded that they could use the same prices, and then noted MLSA was at \$1.50 or higher: “average on 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.”¹²⁶

At 9:04 am that same morning (June 10), Sheehan wrote to Miller about a particular trade and Miller responded: “I thought that was only for OCL which is higher on peak and for a certain price.”¹²⁷ That launched an extended IM conversation between Sheehan (“shawnconnectiv”) and Miller (“Carlog33”) about the nascent OCL Strategy:¹²⁸

Carlog33> what price would we expect to make money on for OCLs

Carlog33> pete suggested same prices

shawnconnectiv>well the risk is that you if you don’t get done [*i.e.* cleared] you have just paid .67 for trans for nothing

Carlog33> thats true

Carlog33> but if you pay too much then you may be higher than the OCL number

shawnconnectiv> i agree with that ... each trade for ocl will be unique... if its same sorce [*sic*] sink in and out [*i.e.* SouthImp-Exp] then its purely the

¹²³ P. Jones Test. Vol. II Ex. 12 (Bates No. COALTRAIN00007073).

¹²⁴ Miller Test. Ex. CTJM-18; Sheehan Test. Ex. CTS-5. Miller testified that he recalled discussions within the office about OCLs around that time.

¹²⁵ Miller Test. Exs. CTJM-30, CTJM-32.

¹²⁶ Miller Spector 360 Chat IM (June 10, 2010 8:48 am).

¹²⁷ Miller Spector 360 Chat IM (June 10, 2010 9:04 am).

¹²⁸ Miller Spector 360 Chat IM (June 10, 2010 9:34 am) (emphasis added).

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 OASIS

This conversation reveals two important aspects of the OCL Strategy as it was conceived on June 10, 2010, about 5 days before Coaltrain began making OCL trades. First, it shows that the traders understood that the OCL Strategy was different from the ordinary Spread Strategy trade—which is why Miller and Sheehan distinguished OCL trades from “strictly an upto,” and talked of “layering” the OCL strategy onto spread trades “as well.” Second, it demonstrates that the purpose of OCL trades was not to profit from the trade’s “merits” in terms of price spread arbitrage—that is, as Sheehan stated, only some of the “trade[s] for ocl” would have “to be evaluated on [their] merits as well.”

This discussion on June 10 describes the OCL Strategy in ways that closely resemble how another trader—Wells—described it in August 2010, after Respondents had gained a lot of practical experience with the OCL Strategy. As he explained in an internal communication, “a very good OCL play” was a trade that “averages out never losing a lot or making a lot.”¹²⁹ That is, when spreads are reliably close to zero, then it is easier to profit from MLSA payments and safer to increase volume (and thereby increase profits from MLSA).

In a different internal communication around that time, Wells disagreed with what Miller had proposed as an OCL trade, stating that he did not “really consider this an OCL play because of the cost and risk,” and explained that “[o]n strict OCL plays we try to price [the DA bid] above the highest [DA spread] price we have seen” but because the proposed trade’s Day-Ahead spread had been averaging over \$9, he said “I would not want to pay that to make a dollar on Loss Credits.”¹³⁰ In short, the purpose of the OCL Strategy was (i) to make money from MLSA, not from price arbitrage (“I would not want to pay that to make a dollar on Loss Credits”), and (ii) to find trades with the smallest anticipated price spread and volatility (a “good OCL play” is one that “averages out never losing a lot or making a lot”). As discussed above, Wells later confirmed this in his

¹²⁹ Wells Test. Ex. 87.

¹³⁰ Wells Test. Ex. 93.

testimony.¹³¹ This describes the same concept that lies behind City Power’s “low volatility tool.”¹³²

To make it easier for them to track their different strategies, Respondents added labels to their trades for internal purposes, identifying which of their trades were “OCL” Strategy, and which were “Spread” Strategy, as follows:¹³³

Date (August 23, 2010)

Total Volume of UTC trades entered so far that day, subdivided by “Spread” (24,800 MWh) and “OCL” strategy (39,000 MWh)

“Strategy” line labels each trade as either “Spread” or “OCL”

This is an “Ovec-East Bend 2” trade, which they call an OCL trade

¹³¹ Wells Test. Tr. 142:13-143:8 (analyzing OCL trades was “almost exactly the opposite of a normal analysis.”), 187:16-188:11 (“My filter shows that I’m getting paid a net, whether I’m getting paid that for loss credits, getting paid to take the trade. The net just shows me that the net is positive, and if there’s not a lot of risk associated with it, then that would be a good low-risk trade.”), 191:2-19 (“[t]he whole idea was that it doesn’t cost a lot. It doesn’t have the potential to lose a lot. And for the last period of time, a week, a couple weeks, whatever, it’s consistently kicking out 80 cents, 90 cents, a dollar, whatever the case may be” and he explained that “net” meant “the spread plus the expenses.”) By “kicking out 80 cents,” Wells was referring to the net profits including anticipated MLSA payments.

¹³² *City Power*, 152 FERC ¶ 61,012 at P 79.

¹³³ Excerpt of Miller Test. Ex. CTJM-92 (outlines and text boxes added).

As an example, they tagged SouthImp-Exp trades with the OCL Strategy label:¹³⁴

The screenshot displays the PJM UpTo - Market Interface. At the top, there are sections for 'Market Day' (6/30/2010), 'User' (Jack), and 'Book' (PJM-UPTO). A table shows trade details with columns for Name, MW, and Strategy. A red circle highlights the 'Strategy' column, which lists 'OCL' and 'Spread'. A text box points to this area, stating: "117,000 MWh of 'OCL' trades, and 28,000 MWh of 'Spread' trades".

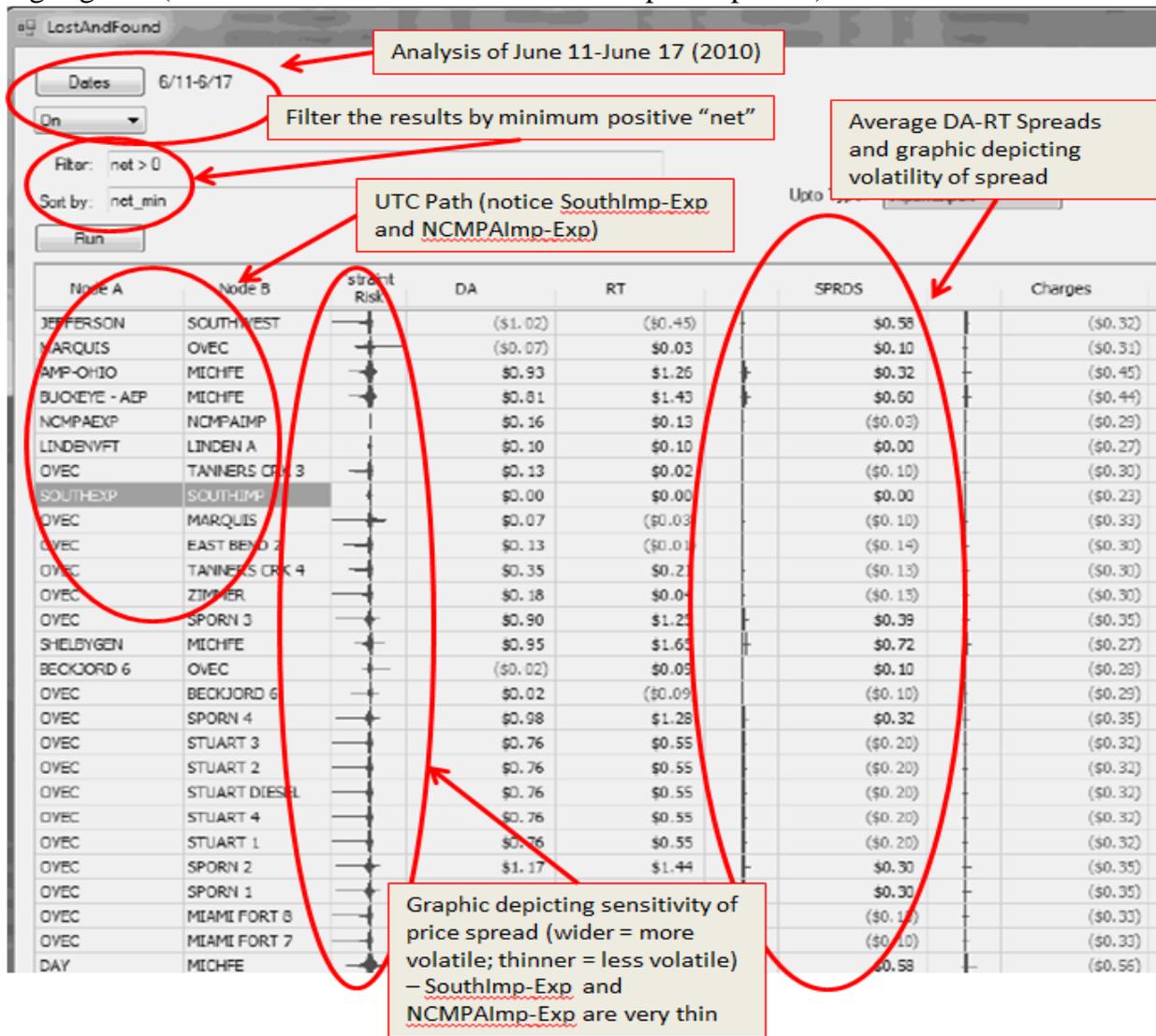
Below the main table, there are sections for 'Trade date June 30, 2010' and '145,000 MWh of Up To Congestion trades scheduled'. A red circle highlights the 'Strategy' column in this section, which lists 'OCL'. A text box points to this area, stating: "All SouthImp-Exp trades labeled 'OCL' strategy".

The bottom part of the screenshot shows a detailed table of trade data with columns for 'Type', 'ID', 'Message', 'Trans', 'POR', 'POD', 'Source', 'Sink', 'Import', 'Export', and 'Strategy'. The 'Strategy' column is highlighted with a red circle, and a text box points to it, stating: "All SouthImp-Exp trades labeled 'OCL' strategy".

As with *City Power* and *Chen*, Respondents' OCL Strategy focused on UTC trades with anticipated zero or near-zero net price spreads. The Spector 360 data demonstrates how Respondents built their analytical tools to look for trades with minimal spreads, and how they sought to make a profit by collecting MLSA. As an example, in the following snapshot from June 17, 2010 (when they had already begun executing the OCL Strategy), Hughes was able to use the company's applications to identify UTC paths that had exhibited little price volatility ("net_min"), including SouthImp-Exp, which he

¹³⁴ Excerpt of R. Jones Test. Ex. CT-RJ 95 (outlines and text boxes added).

highlighted (the “SPRDS” column refers to UTC price spreads):¹³⁵

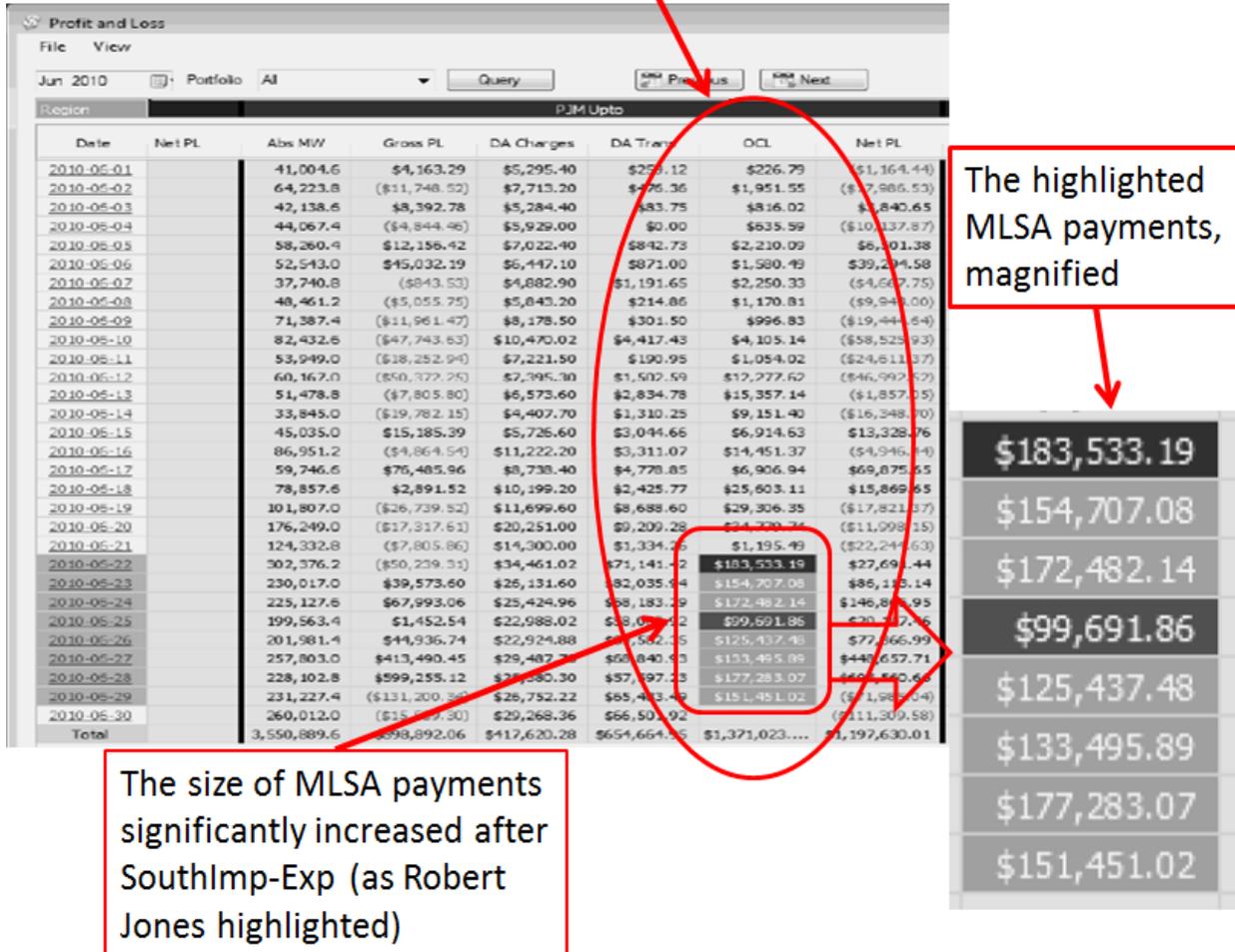


The traders knew that the company’s source of profits for their OCL trades was from MLSA. The analysts revised the daily Profit and Loss (P&L) application to separately keep track of UTC losses or gains, and OCL (*i.e.*, MLSA) payments. As the following snapshot from July 2, 2010 (12:13 pm) shows, Robert Jones logged on to the P&L application and highlighted the total daily MLSA payments received after they had

¹³⁵ Excerpt of Hughes Test. Ex. CT-46 (outlines and text boxes added).

begun making large-volume OCL Strategy trades:¹³⁶

“OCL” = amount of MLSA payments



What this chart shows is that the company’s share of MLSA payments started rising dramatically in mid-June, when Respondents began implementing the OCL Strategy, and that as they greatly increased their OCL Strategy volumes (after discovering SouthImp-Exp) between June 22 and June 29, their MLSA payments rose to about \$100,000 or more per day. The fact that Robert Jones highlighted the most recent days in the “OCL” column on his computer monitor shows that he was particularly focused on those figures.

¹³⁶ Excerpt of R. Jones Test. Ex. CT-RJ 128 (7-2-10 12:13 pm).

3. While Respondents Privately Planned the OCL Strategy, Coaltrain Publicly Assured the Commission That the Availability of MLSA Would Not Create Perverse Incentives to Trade to Capture MLSA

On June 9, 2010, Coaltrain submitted a Request for Rehearing in the *Black Oak* proceeding “jointly and severally” with a handful of other market participants (according to the submission itself).¹³⁷ This submission stated in part that

[t]here 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 [locational marginal price] and the real-time LMP they expect.¹³⁸

Through this filing, Coaltrain told the Commission one thing while at the same time Respondents were privately planning to do the opposite. Respondents were already devising the OCL Strategy, which involved making trades not to “profit from the difference between the day ahead LMP and the real-time LMP they expect” but rather to make UTC trades solely “in order to capture a larger share of the surplus.”

4. Executing the OCL Strategy (June 15-September 2, 2010)

On June 15, 2010, Coaltrain entered the first of its OCL Strategy trades, and continued making OCL trades until September 2, during which time the company made more than \$4.12 million in profits from the strategy. The largest OCL path was SouthImp-Exp, and Respondents never once experienced a spread of any kind on that path. The second-largest OCL trade was NCMPAImp-Exp, and the tiny positive price spreads that Respondents experienced on that path were far too small to cover even basic UTC transaction costs (much less the added expense associated with unnecessarily paying for transmission). The remaining 38 OCL Strategy paths also made no sense but for MLSA, and in fact on average they lost a lot of money on the price spreads. Respondents themselves identified which of their UTC trades were OCL trades, as follows (sorted by volume; SouthImp-Exp and NCMPAImp-Exp highlighted for

¹³⁷ Financial Marketers, Request for Rehearing, Docket No. EL10-40-000, at 1 (filed June 9, 2010) (June 2010 Filing).

¹³⁸ *Id.* at 20 n.23.

emphasis):¹³⁹

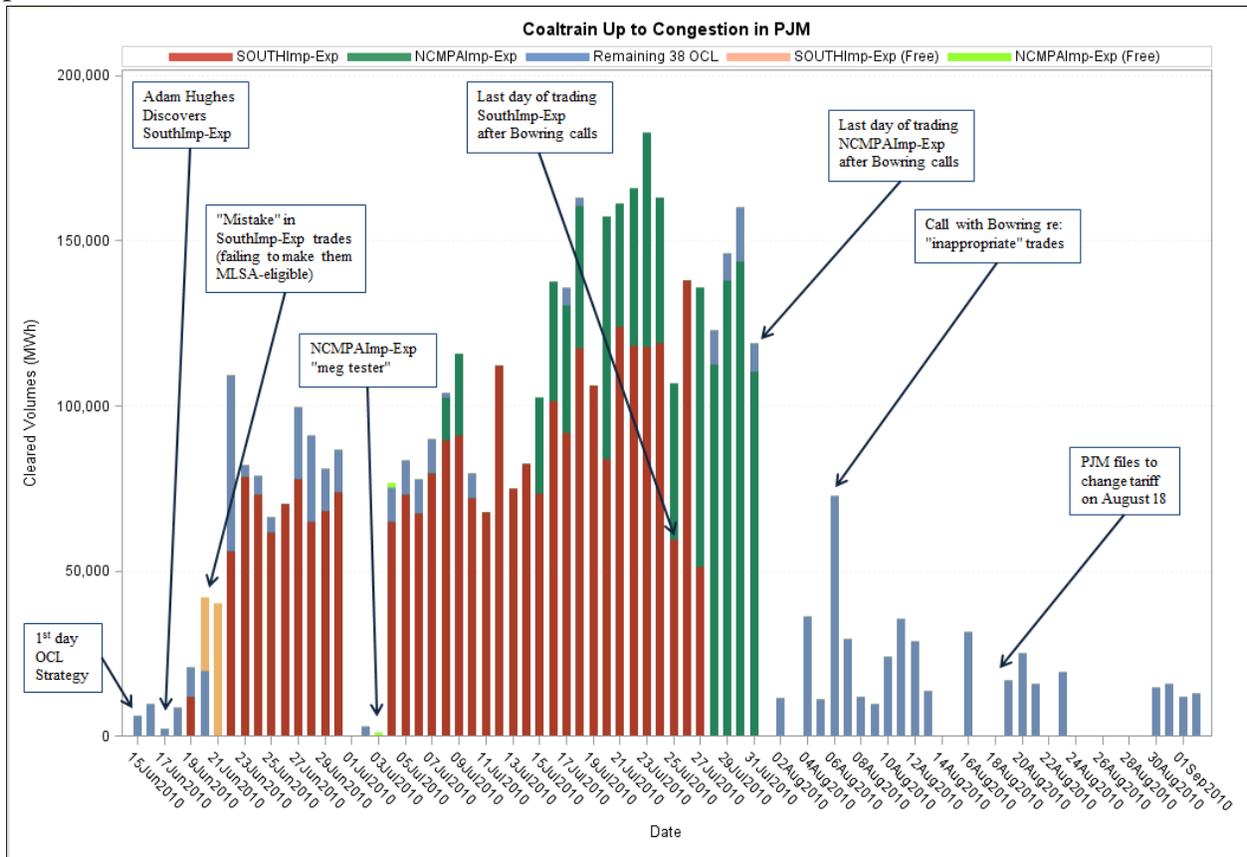
Source Pnode	Sink Pnode	Time Period			UTC Profits and Losses					UTC Volumes	
		First Date	Last Date	Number of Days	UTC Revenues (\$)	OASIS & EES Charges (\$)	PnL (w/o MLSA) (\$)	MLSA (\$)	Total PnL (\$)	MLSA-Eligible (MW/h)	UTC Cleared Volume (MW/h)
SOUTHIMP	SOUTHEXP	19Jun2010	27Jul2010	34	0	(2,429,222)	(2,429,222)	5,077,119	2,647,897	2,782,525	2,812,075
NCMPAIMP	NCMPAEXP	08Jul2010	31Jul2010	17	124,359	(893,048)	(768,689)	1,789,887	1,021,198	1,088,670	1,088,670
OVEC	EAST BEND 2	28Jul2010	31Aug2010	16	330	(59,394)	(59,063)	131,461	72,398	84,489	84,489
SOUTHWEST	MIAMI FORT 7	17Jun2010	09Aug2010	11	32,052	(52,843)	(20,792)	118,855	98,064	69,660	69,660
OVEC	ZIMMER	28Jul2010	01Sep2010	16	(7,928)	(49,075)	(57,003)	100,628	43,624	64,724	64,724
OVEC	BECKJORD 6	04Aug2010	01Sep2010	13	(1,824)	(41,500)	(43,324)	87,918	44,594	54,251	54,251
SOUTHWEST	OVEC	06Aug2010	02Sep2010	7	(23,583)	(34,310)	(57,893)	79,353	21,460	50,900	50,900
SOUTHWEST	EAST BEND 2	27Jun2010	10Aug2010	8	(26,805)	(28,479)	(55,284)	77,459	22,175	48,006	48,006
EAST BEND 2	SOUTHWEST	17Jun2010	10Jul2010	7	(38,368)	(21,789)	(60,157)	76,515	16,357	42,725	43,225
OVEC	TANNERS CRK 3	10Aug2010	31Aug2010	11	(35,726)	(31,195)	(66,921)	65,719	(1,202)	41,300	41,300
MIAMI FORT 7	SOUTHWEST	27Jun2010	30Jun2010	4	8,921	(19,562)	(10,640)	45,255	34,615	29,152	29,152
OVEC	MIAMI FORT 8	04Aug2010	23Aug2010	6	(16,673)	(21,857)	(38,531)	49,946	11,415	28,613	28,613
BEAV DUQ UNIT1	MICHFE	02Jul2010	05Aug2010	5	4,336	(16,968)	(12,632)	48,512	35,880	27,598	35,959
SOUTHWEST	ROCKPORT	22Jun2010	30Jun2010	7	12,468	(20,547)	(8,079)	37,475	29,395	23,851	25,173
AK STEEL	SOUTHWEST	22Jun2010	30Jun2010	7	(34,571)	(12,105)	(46,676)	34,163	(12,513)	21,617	21,617
OVEC	STUART 4	11Aug2010	23Aug2010	4	(17,672)	(12,197)	(29,869)	32,399	2,530	18,250	18,250
OVEC	MIAMI FORT 7	04Aug2010	10Aug2010	4	6,728	(17,011)	(10,282)	35,790	25,507	18,113	18,113
MISO	AK STEEL	19Jun2010	20Jun2010	2	(26,189)	(5,731)	(31,920)	26,501	(5,419)	17,600	17,600
CPLEIMP	DUKEXP	15Jun2010	08Jul2010	3	(9,918)	(9,884)	(19,803)	14,448	(5,354)	11,753	11,753
SOUTHWEST	MIAMI FORT 8	06Aug2010	07Aug2010	2	(16,227)	(7,174)	(23,401)	14,207	(9,194)	10,410	10,410
SOUTHWEST	AK STEEL	16Jun2010	16Jun2010	1	2,276	(7,131)	(4,855)	8,860	4,004	9,600	9,600
SOUTHWEST	STUART 2	01Sep2010	02Sep2010	2	(4,639)	(3,366)	(8,005)	11,058	3,053	7,150	7,150
SOUTHWEST	BAKER	19Aug2010	20Aug2010	2	842	(5,717)	(4,875)	8,830	3,955	7,000	7,000
CPLEIMP	NCMPAEXP	12Aug2010	16Aug2010	2	(1,585)	(3,408)	(4,993)	10,266	5,272	6,000	6,000
OVEC	CONESVILLE 3	17Jul2010	18Jul2010	2	4,881	(4,220)	661	9,458	10,118	5,200	5,200
SOUTHWEST	TANNERS CRK 1	07Aug2010	08Aug2010	2	(13,572)	(2,401)	(15,973)	6,049	(9,924)	5,200	5,200
SOUTHWEST	MARQUIS	09Aug2010	10Aug2010	2	(3,912)	(3,086)	(6,998)	10,550	3,552	4,950	4,950
ROCKPORT	SOUTHWEST	18Jun2010	18Jun2010	1	(4,932)	(3,794)	(8,726)	6,199	(2,527)	4,100	4,100
SOUTHWEST	BECKJORD 6	07Aug2010	07Aug2010	1	(4,820)	(1,202)	(6,022)	3,428	(2,595)	3,250	3,250
SOUTHWEST	TANNERS CRK 3	07Aug2010	07Aug2010	1	(5,865)	(1,390)	(7,255)	3,428	(3,827)	3,250	3,250
OVEC	STUART 3	10Aug2010	10Aug2010	1	1,417	(2,630)	(1,213)	6,929	5,716	3,000	3,000
BEAV DUQ UNIT2	OVEC	19Aug2010	20Aug2010	2	(576)	(1,941)	(2,517)	3,542	1,026	2,800	2,800
OVEC	STJOE 138 KV	19Aug2010	20Aug2010	2	(133)	(1,918)	(2,051)	3,542	1,492	2,800	2,800
SOUTHWEST	DAY	17Jul2010	17Jul2010	1	4,553	(2,126)	2,427	4,523	6,950	2,600	2,600
MICHFE	CONESVILLE 2	08Aug2010	08Aug2010	1	132	(1,533)	(1,401)	2,621	1,220	1,950	1,950
MICHFE	CONESVILLE 3	08Aug2010	08Aug2010	1	(63)	(1,533)	(1,596)	2,621	1,025	1,950	1,950
SOUTHWEST	TANNERS CRK 2	08Aug2010	08Aug2010	1	(3,527)	(989)	(4,515)	2,621	(1,894)	1,950	1,950
SOUTHWEST	CLINCH RIVER 1	20Aug2010	20Aug2010	1	(200)	(1,086)	(1,286)	1,746	460	1,400	1,400
BUCKEYE - AEP	OVEC	30Aug2010	30Aug2010	1	(586)	(821)	(1,406)	2,252	846	1,300	1,300
DOVERGEN	MICHFE	30Aug2010	30Aug2010	1	(117)	(275)	(393)	936	543	500	500
TOTAL					(96,716)	(3,834,457)	(3,931,173)	8,053,066	4,121,894	4,610,158	4,649,891

As the table shows, Respondents cumulatively lost more than \$96,000 in UTC spreads and more than \$3.8 million (before MLSA) on its OCL Strategy trades.

The following chart depicts the daily volumes of the OCL trades (Red is SouthImp-Exp; Orange are the SouthImp-Exp trades that mistakenly used free transmission; Green is NCMPAImp-Exp; Light Green are the (barely visible) NCMPAImp-Exp trades that used free transmission; and Blue are the remaining 38 OCL

¹³⁹ For source, see *supra* text accompanying note 8. As this table indicates, most of the OCL trades are single path trades, but some are part of what Respondents called “combination trades” (*i.e.*, A-B/B-C).

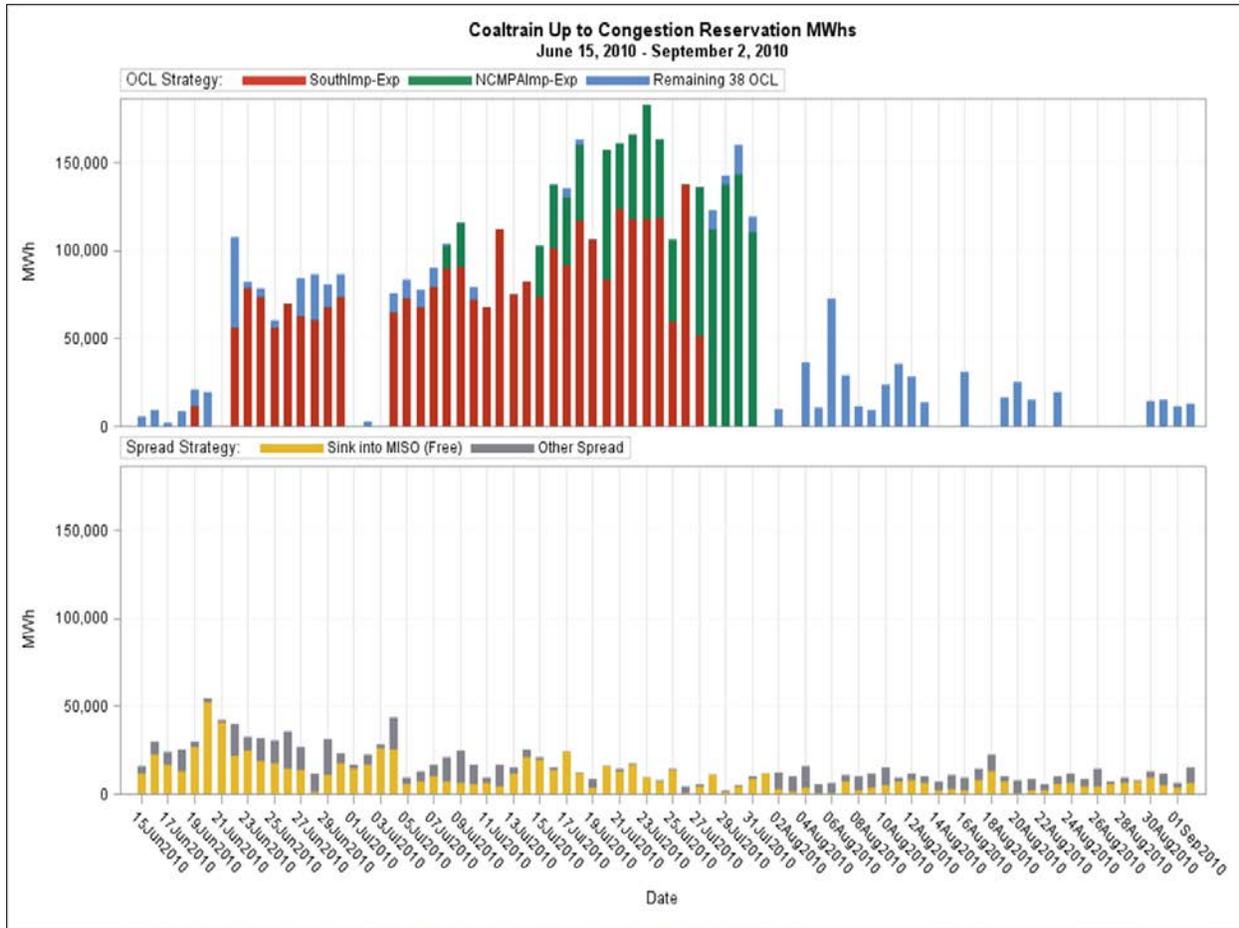
paths):¹⁴⁰



As the above chart indicates, Respondents started executing the “other” OCL trades before they discovered the SouthImp-Exp trade, but the “other” OCL trades were soon dwarfed by Coaltrain’s much larger trades on the SouthImp-Exp and NCMPAImp-Exp paths. After stopping their SouthImp-Exp and NCMPAImp-Exp trades at the IMM’s request, however, Respondents returned to making substantial trades on other OCL paths through August and into September. In so doing, they managed to replace to some extent the OCL volumes (and profits) they lost when they stopped making SouthImp-Exp and NCMPAImp-Exp trades. This reveals the extent to which the remaining OCL trades were part of the same, overarching strategy as the SouthImp-Exp and NCMPAImp-Exp trades.

¹⁴⁰ See *supra* text accompanying note 8.

As the following chart shows, the reserved volume of the OCL Strategy greatly exceeded Respondents' Spread Strategy trades during the summer of 2010—even after they stopped doing their two main OCL trades (SouthImp-Exp and NCMPAImp-Exp):¹⁴¹



Despite the enormous volume of their OCL Strategy trading, Respondents did little to look at the fundamentals before doing their everyday trades after determining that a path would have reliably zero or near-zero spreads. As Jack Wells explained, the strategy involved “almost the opposite of a normal analysis.”¹⁴² This can be confirmed, in part, by using the Spector 360 screenshots to look at how Wells went about making his OCL Strategy trades. As discussed above, Spector 360 made screenshots every 20 seconds on every computer used by Coaltrain’s employees. For Wells, the resulting images depict how he analyzed and executed trades, and what they show is that he did not do research before scheduling enormous volumes of UTC trades.

For instance, Wells got into the office early on Wednesday, July 7, 2010 and began opening up his trade applications. At 6:50 A.M. and 20 seconds, the screenshots

¹⁴¹ See *supra* text accompanying note 8.

¹⁴² Wells Test. Tr. 100:24-101:13.

show that he had already scheduled 1,900 MWh of Spread Strategy trades and no OCL Strategy trades:¹⁴³

User:		Book:		Constraint		Strategy	
Name	MW	Name	MW	Name	MW	Name	MW
All	1,900.0	All	1,900.0	All		All	
Jack	1,900.0	PJM-UPTO	1,900.0	(None)	1,900.0	Spread	1,900.0

The screenshot shows the PJM Market Interface with the following trade summary table circled in red:

User	Book	Constraint	Strategy
Jack	PJM-UPTO	(None)	Spread

Below this is a detailed data table with columns for Hour, Crea, Used, Risk, and various MW values. The first row shows a value of 300.0 for Crea MW and 300.0 for Used MW.

Snapshot 42844 / 94390 JACK-OFFICE Craneene Wed, Jul 07, 2010 6:50:20 AM

¹⁴³ Wells Screenshot 1 (Snapshot 42844 Jul. 7, 2010 6:50:20 am) (circles and arrows added).

Just thirty seconds later, his volume of OCL Strategy trades was up to 20,800 MWh:¹⁴⁴

The screenshot displays a trading software interface with a summary table at the top and a detailed market interface below. A red circle highlights the summary table, and a red arrow points from it to a larger red circle in the main interface that highlights a specific trade entry in a data table.

User:		Book:		Constraint		Strategy	
Name	MW	Name	MW	Name	MW	Name	MW
All	22,700.0	All	22,700.0	All		All	
Jack	22,700.0	PJM-UPTO	22,700.0	(None)	22,700.0	OCL	20,800.0
						Spread	1,900.0

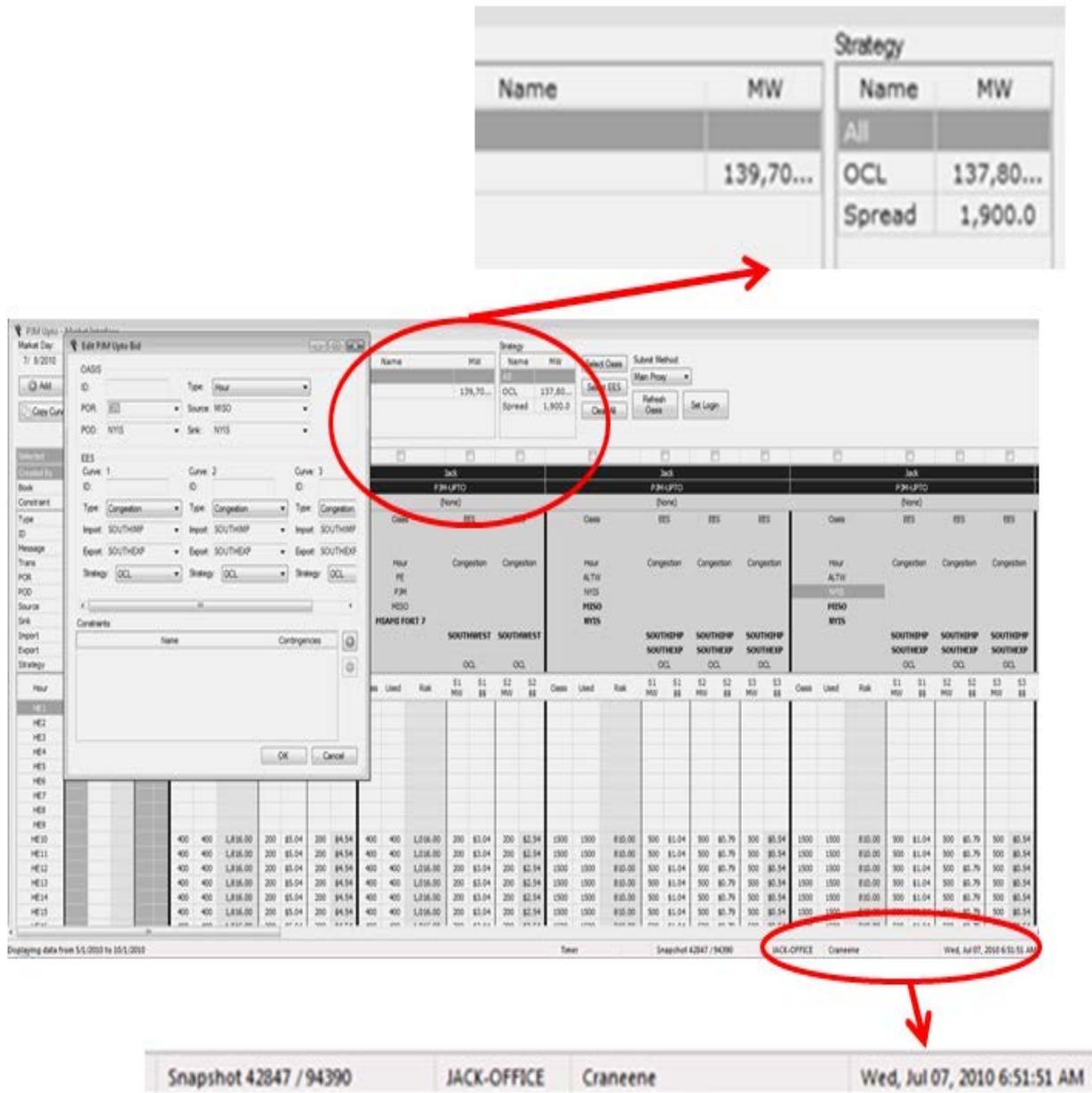
The main interface shows a market overview with various tabs and a data table. A red circle highlights a specific trade entry in the data table, and a red arrow points from the summary table to this entry.

Hour	Case	Used	Risk	Cost	Revenue	Profit	Risk
HE1	300	300					
HE2							
HE3							
HE4							
HE5							
HE6							
HE7							
HE8							
HE9							
HE10	400	400	1,018.00	200	\$5.04	200	\$4.54
HE11	400	400	1,018.00	200	\$5.04	200	\$4.54
HE12	400	400	1,018.00	200	\$5.04	200	\$4.54
HE13	400	400	1,018.00	200	\$5.04	200	\$4.54
HE14	400	400	1,018.00	200	\$5.04	200	\$4.54
HE15	400	400	1,018.00	200	\$5.04	200	\$4.54

Snapshot 42845 / 94390 JACK-OFFICE Craneene Wed, Jul 07, 2010 6:50:50 AM

¹⁴⁴ Wells Screenshot 2 (Snapshot 42845 Jul. 7, 2010 6:50:50 am) (circles and arrows added).

60 seconds after that, his volume of OCL Strategy trades jumped to 137,800 MWh:¹⁴⁵



Wells thus scheduled more than 137,000 MWh of OCL Strategy trades in less than two minutes, and there is no evidence that he performed any fundamentals research before doing these trades. This sort of rapid and high-volume trading is not consistent with a practice of researching market fundamentals on a trade that had real risk, and it shows that the Respondents knew that the OCL Strategy trades involved virtually no risk.

¹⁴⁵ Wells Screenshot 3 (Snapshot 42847 Jul. 7, 2010 6:51:51 am) (circles and arrows added).

This was not an isolated incident. In fact, the Spector 360 data screenshots show that Wells regularly scheduled enormous volumes of OCL Strategy trades in a short time very early in the morning. For instance, on July 16, Wells had executed 39,000 MWh of OCL Strategy trades by 6:32:19 AM.¹⁴⁶ That figure rose to 117,000 MWh about 90 seconds later.¹⁴⁷ About 90 seconds after that, the figure rose to 148,000 MWh of OCL Strategy trades.¹⁴⁸ And 30 seconds after that, the total volume of OCL Strategy trades had grown to 172,550 MWh.¹⁴⁹ This pattern repeated itself over and over.¹⁵⁰ Almost every day when he was handling the OCL trades, Wells put on an enormous volume of OCL Strategy trades in a matter of seconds without first performing any fundamentals-based analysis. His morning routine thus reflects the fact that Respondents did not expect there to be real price risk on the OCL paths. This sort of routine highlights how the careful research associated with the Spread Strategy had been replaced by the OCL Strategy's assembly-line approach to bulk trading.

Peter Jones, Robert Jones, Wells, and Sheehan each executed OCL Strategy trades, while Hughes and Miller played important roles in devising and directing the scheme. Hughes developed software applications that made it possible to do the OCL Strategy trades, and he himself identified the two best OCL paths to Sheehan. Meanwhile, Miller played an important role in planning the OCL Strategy, as IM conversation with Sheehan shows, and in directing others to execute the scheme, such as when, on July 16, Wells asked “[a]ny reason I should not submit the OCL plays???” and Miller replied “no go ahead...thx.”¹⁵¹

Between June 15 and September 2, Respondents executed approximately 4.6 million MWh of OCL Strategy trades, which resulted in more than \$96,000 in losses on the price spreads.¹⁵² Like City Power, Respondents voluntarily increased their transaction costs because they used paid-for transmission when they knew how to eliminate or reduce those costs. By paying 67 cents per MWh to reserve transmission, they became eligible for MLSA payments that were often worth more than twice that. Thus, Respondents incurred losses of \$3.93 million for the OCL Strategy (thanks in large measure to their losses on UTC spreads and the often avoidable expense of reserving

¹⁴⁶ Wells Screenshot 4 (Snapshot 50076 Jul. 16, 2010 6:32:19 am).

¹⁴⁷ Wells Screenshot 5 (Jul. 16, 2010 6:33:22 am).

¹⁴⁸ Wells Screenshot 6 (Snapshot 50082 Jul. 16, 2010 6:35:26 am).

¹⁴⁹ Wells Screenshot 7 (Snapshot 50083 Jul. 16, 2010 6:35:57 am).

¹⁵⁰ *See, e.g.*, Wells Screenshots 10-13 (Snapshots 41945, 41948, 41950, 41951, respectively, Jul. 6, 2010 ca. 6:45 am), 14-17 (Snapshots 50338, 50339, 50345, 50347, respectively, Jul. 18, 2010 ca. 7:13 am).

¹⁵¹ Wells Test. Ex. 55.

¹⁵² *See supra* text accompanying note 8.

transmission), but they received about \$8.05 million in MLSA payments, and thereby made unjust profits of \$4.12 million.¹⁵³ What follows is a closer look at (a) Respondents' first OCL Strategy trades, when they were still learning about how to achieve their purpose; (b) their 2.78 million MWh of trades on SouthImp-Exp, the most effective OCL Strategy path; (c) their 1.08 million MWh of trades on NCMPAImp-Exp, the second most effective OCL Strategy path; and (d) the rest of their OCL Strategy trades from mid-June through early September 2010.

a. First OCL Trades (Mid-June 2010)--Learning Phase

Respondents began implementing the OCL Strategy on June 15, 2010, according to their internal records. As might be expected with attempting a new and different trading strategy, the OCL Strategy started off relatively small. This was the period during when Respondents were still learning what paths worked best for the OCL Strategy.

Respondents spent this early period trying to identify OCL Strategy trades—trades that were low-cost, had zero or negligible risk, and thereby promised to return more in MLSA payments than the net of the price spread and transaction costs. The first OCL path that Respondents attempted was CPLEImp-DukExp. On June 15, Respondents executed 72 transactions on this path totaling 6,000 MWh. Respondents lost over \$4,200 on the UTC spread and an additional \$4,800 in transaction costs, while collecting nearly \$5,000 in MLSA payments, for a net loss of approximately \$4,000.¹⁵⁴ Because it lost so much money on the spreads, CPLEImp-DukExp was clearly not profitable even by OCL Strategy standards, but it represents one of Respondents' first attempts to identify and execute UTC trades not for the purpose of making UTC profits, but instead to profit from MLSA payments.¹⁵⁵

After the initial day, Respondents began making trades on a different, and ultimately more successful, OCL play. On or about June 15, Robert Jones proposed a trade to his colleagues that he called a “possible loss trade” which was a “combo using the Southwest interface.”¹⁵⁶ On June 16, Robert Jones researched an “OCL play” combination trade between East Bend 2 and Miami Fort 7 that used this common Southwest interface.¹⁵⁷ Using an internal application to propose trades, Jones was able to

¹⁵³ See *supra* text accompanying note 8.

¹⁵⁴ See *supra* text accompanying note 8.

¹⁵⁵ Respondents only traded CPLEImp-DukExp on two additional days, June 18 and July 8, at much smaller volumes, and again incurred small losses when including MLSA.

¹⁵⁶ Bates No. COALTRAIN012645, row 2229.

¹⁵⁷ A combination trade, also called a “combo mambo,” involved 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, then B to C. See Miller Test. Tr. 126:24-127:8 (“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 Up-To transactions at this time, you

see in the “SPRDS” column (*i.e.* the UTC spread) that the trade promised only negligible returns on the change in the spread. The Daily Blotter also had a “Risk” graphic indicating that constraints had little effect on the path, which means that the path experienced little DA-RT volatility (the red circles point to the risk and UTC spreads):¹⁵⁸

Market	Owner	A (Buy)	B (Sell)	Risk	14d Gross PNL	Yes	No	Risk / Reward	DA-DA Wed 9-Jun	DA-DA Tue 8-Jun	SPRDS Wed 9-Jun	SPRDS Tue 8-Jun	By	Source
PJM		CAPEMAY 69 KV LOAD 1 LOAD			\$2,108.40	1		(0.176)	\$41.92	\$51.45	\$1.12	(\$17.64)	Bob	Trade Sheet
PJM		MIAMI FOR 345 KV MID 7 GEN	EEB 10 345 KV EEB 2 0 GEN		\$0.00	1		(0.046)	\$0.07	\$0.11	\$0.04	(\$0.13)	Bob	Node Analyzer

The minimal price spread on that path was confirmed when Jones reviewed the Node Analyzer tool, which also revealed minuscule (or negative) price differentials.¹⁵⁹ Robert Jones proposed trading the path even though it showed no promise of profits from price differentials. He did so because of the MLSA, as he explained: the “best hours for losses are 12-22 for an average of \$1.38 in losses.”¹⁶⁰ On June 17, Coaltrain started scheduling a large volume of UTC transactions on the East Bend 2-Miami Fort 7 “combo” trade, amounting to more than 109,000 MWh (roughly 6,800 MWh on each leg of the combo trade) between June 17 and July 10. During that time, Respondents lost more than \$4,000 on the spread and incurred more than \$66,000 in costs. But the firm reaped a profit of more than \$100,000 because it claimed more than \$174,000 in MLSA.¹⁶¹

b. Most Successful OCL Strategy Trade: SouthImp-SouthExp (Mid-June to End of July 2010)

*“[i]t was an economically feasible trade for us to transact. So we did.”
(Peter Jones Testimony, Sept. 16, 2010)*

The most successful OCL Strategy trade was SouthImp-Exp, which the Commission addressed in the *City Power* order¹⁶² and which was the only type of trade at issue in the *Oceanside* settlement. Here, the evidence indicates that Hughes discovered on June 17 (just two days after he had “create[d an] application to find deals for loss credits”)¹⁶³ that SouthImp-Exp would work for the OCL Strategy.¹⁶⁴ What he saw in his

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 Rockport to, he says, Southwest. And then you would do Southwest to AK Steel, when you’d really be doing Rockport to AK Steel.”).

¹⁵⁸ Excerpt of R. Jones Test. Ex. CT-RJ 16.

¹⁵⁹ R. Jones Test. Exs. CT-RJ 22, CT-RJ 23.

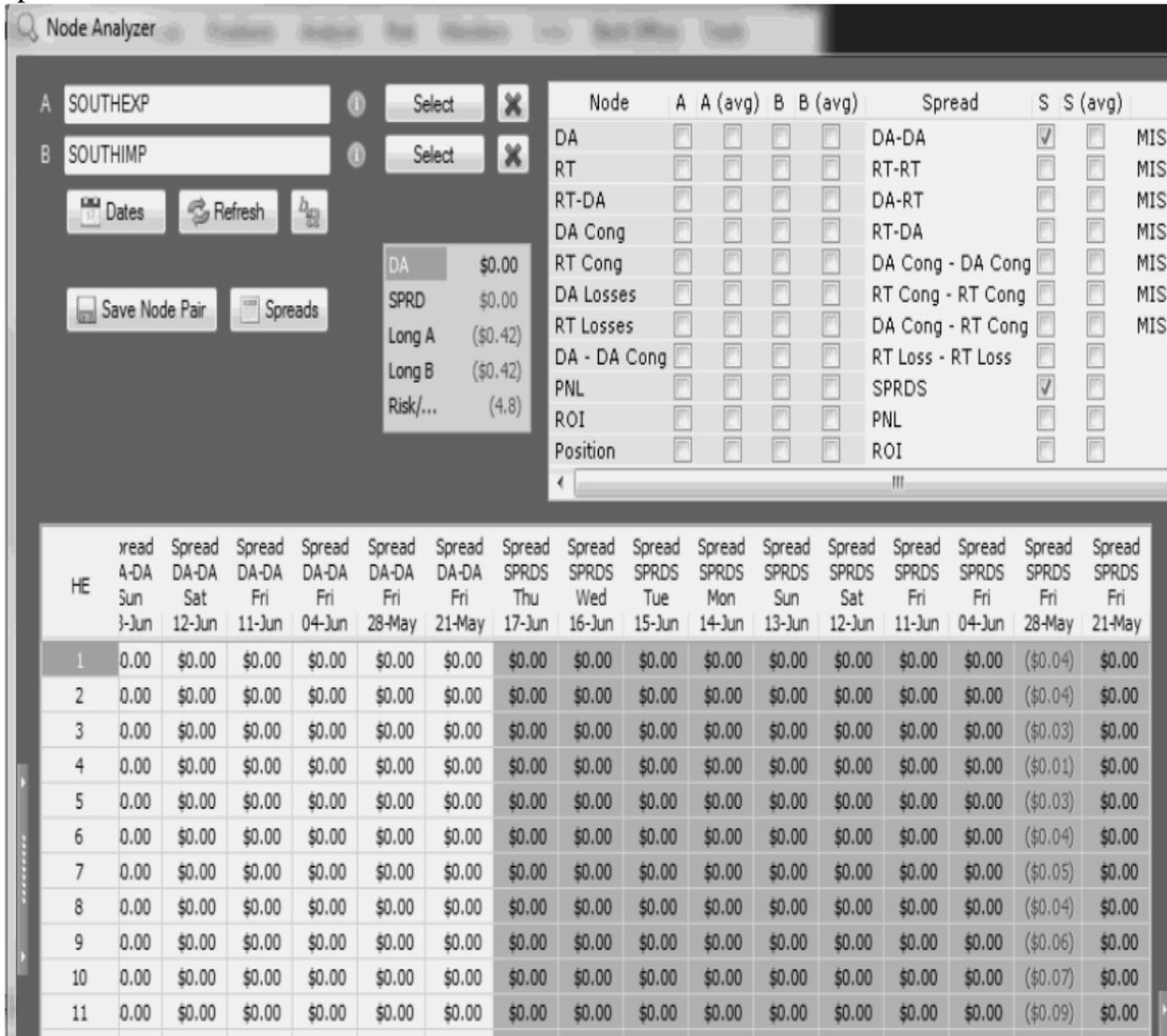
¹⁶⁰ R. Jones Test. Ex. CT-RJ 16.

¹⁶¹ See *supra* text accompanying note 8.

¹⁶² *City Power*, 152 FERC ¶ 61,012 at PP 127-141.

¹⁶³ Bates No. COALTRAIN012638, row 1951. See also Bates No. COALTRAIN012639, row 27.

analytical tools was that the SouthImp-Exp then had a consistently zero Day-Ahead spread, and that even when had Real-Time spreads appeared in the past, they were small and on average *negative* (losing an average of \$0.23 in peak hours, and an average loss of \$0.32 in all hours between January 1, 2010 and June 17, 2010). Since 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:¹⁶⁵



¹⁶⁴ Hughes performed repeated searches of the UTC trading database when he discovered the SouthImp-Exp trade was eligible for MLSA. See, e.g., Bates No. COALTRAIN012639, rows 689, 691, 697, 702, 744.

¹⁶⁵ Excerpt of Hughes Test. Ex. CT-47 (June 17, 2010 2:31 pm).

After discovering the path and its zero or near-zero spreads, Hughes used his software to sort the path's 2010 results by size. In so doing, he could see that the spreads (in the minority of hours when spreads appeared at all) were tiny. In fact, as the following snapshot indicates, Hughes could see that the UTC price spread exceeded a (positive) \$0.07 in only 30 hours in 2010—less than 1% of the time:¹⁶⁶

DA-RT Spread (Sorted by Size, showing spreads larger than 10 cents)

Date Range

SouthImp-Exp Analysis

Hours, Sorted By Size of DA-RT Spread

Time	Node A DA	Node A RT	Node A RT-DA	Node A RT Cong	Node B DA	Node B RT	Node B RT-DA	Node B RT Cong	Spread RT-DA
Fri 4/2/10 HE3	\$29.37	\$57.65	\$28.28	\$32.95	\$29.37	\$25.49	(\$3.88)	\$0.71	\$32.16
Wed 4/7/10 HE7	\$28.72	\$54.30	\$35.79	\$23.06	\$28.72	\$42.95	\$14.23	\$1.34	\$21.55
Sat 4/3/10 HE9	\$27.12	\$16.44	\$9.95	\$19.56	\$27.12	\$28.50	\$1.38	\$0.90	\$18.57
Sun 4/4/10 HE10	\$30.76	\$16.44	\$15.68	\$11.51	\$30.76	\$28.50	\$2.26	\$0.71	\$10.68
Tue 4/6/10 HE21	\$45.15	\$47.70	\$2.55	(\$11.12)	\$45.15	\$28.50	(\$16.65)	\$0.00	\$10.45
Tue 3/23/10 HE18	\$33.32	\$36.66	\$3.34	(\$3.89)	\$33.32	\$34.36	\$1.04	(\$6.37)	\$2.30
Tue 4/6/10 HE22	\$37.55	\$39.77	\$2.22	\$1.85	\$37.55	\$38.22	\$0.67	\$0.13	\$1.55
Wed 3/24/10 HE7	\$41.18	\$39.69	(\$1.49)	\$3.98	\$41.18	\$38.30	(\$2.88)	\$2.43	\$1.39
Wed 4/7/10 HE6	\$24.49	\$27.55	\$3.06	\$0.98	\$24.49	\$26.28	\$1.79	(\$0.40)	\$1.27
Mon 4/5/10 HE7	\$32.67	\$31.13	(\$1.54)	\$1.30	\$32.67	\$30.18	(\$2.49)	\$0.27	\$0.95
Tue 3/30/10 HE20	\$31.93	\$19.24	(\$12.69)	(\$15.80)	\$31.93	\$18.54	(\$13.39)	(\$16.63)	\$0.70
Thu 3/18/10 HE20	\$34.94	\$30.57	(\$4.37)	(\$22.83)	\$34.94	\$29.89	(\$5.05)	(\$23.83)	\$0.68
Fri 1/1/10 HE18	\$64.68	\$33.17	(\$31.51)	(\$14.67)	\$64.68	\$32.59	(\$32.09)	(\$15.39)	\$0.58
Mon 4/5/10 HE8	\$36.00	\$30.86	(\$5.14)	\$0.55	\$36.00	\$30.33	(\$5.67)	(\$0.06)	\$0.53
Thu 3/18/10 HE24	\$26.58	\$1.22	(\$25.36)	(\$10.10)	\$26.58	\$0.84	(\$25.74)	(\$10.54)	\$0.38
Wed 4/7/10 HE5	\$23.01	\$24.69	\$1.68	\$0.36	\$23.01	\$24.39	\$1.38	(\$0.02)	\$0.30
Wed 3/24/10 HE21	\$40.92	\$56.97	\$16.05	(\$4.27)	\$40.92	\$56.68	\$15.76	(\$4.76)	\$0.29
Tue 2/23/10 HE18	\$41.48	\$22.29	(\$19.19)	(\$7.09)	\$41.48	\$28.92	(\$12.56)	(\$7.44)	\$0.27
Sun 4/4/10 HE9	\$28.98	\$1.19	(\$27.79)	\$1.52	\$28.98	\$27.53	(\$1.45)	\$1.17	\$0.26
Fri 5/28/10 HE15	\$43.40	\$8.31	(\$35.09)	(\$10.61)	\$43.40	\$61.50	\$18.10	(\$10.92)	\$0.21
Sat 1/16/10 HE1	\$32.48	\$20.29	(\$12.19)	\$1.13	\$32.48	\$30.01	(\$2.47)	\$0.82	\$0.18
Thu 2/18/10 HE16	\$34.89	\$4.47	(\$30.42)	(\$4.29)	\$34.89	\$30.24	(\$4.65)	(\$4.61)	\$0.18
Tue 3/30/10 HE19	\$31.74	\$21.32	(\$10.42)	(\$9.97)	\$31.74	\$21.14	(\$10.60)	(\$10.26)	\$0.18
Thu 3/18/10 HE14	\$32.77	\$27.44	(\$5.33)	(\$10.46)	\$32.77	\$27.27	(\$5.50)	(\$10.88)	\$0.17
Thu 2/18/10 HE17	\$35.45	\$27.63	(\$7.82)	(\$3.79)	\$35.45	\$27.47	(\$7.98)	(\$4.08)	\$0.15
Thu 3/18/10 HE9	\$40.71	\$26.75	(\$13.96)	(\$10.80)	\$40.71	\$26.61	(\$14.10)	(\$11.09)	\$0.14
Tue 3/30/10 HE21	\$34.79	\$28.03	(\$6.76)	(\$6.92)	\$34.79	\$27.90	(\$6.89)	(\$7.18)	\$0.13
Tue 2/23/10 HE17	\$34.60	\$33.17	(\$1.43)	(\$2.67)	\$34.60	\$33.09	(\$1.51)	(\$2.84)	\$0.08
Thu 3/18/10 HE19	\$30.50	\$23.44	(\$7.06)	(\$4.10)	\$30.50	\$23.36	(\$7.14)	(\$4.36)	\$0.08
Fri 4/2/10 HE9	\$29.69	\$23.99	(\$5.70)	(\$2.39)	\$29.69	\$23.92	(\$5.77)	(\$2.57)	\$0.07

¹⁶⁶ Excerpt of Hughes Test. Ex. CT-50 (outlines and text boxes added). See also Hughes Test. Ex. CT-46, 47, 49.

As discussed above, a price spread of at least 21 cents is necessary to break even if the trade is made using free transmission, or about 89 cents if using paid transmission. A SouthImp-Exp trade showed a profit with paid transmission in only 10 hours over the previous six months—not a recipe for success, when looking solely at price differentials. This shows that Hughes and others knew that there was effectively no chance of making a UTC spread profit on the SouthImp-Exp trade before they ever placed any trades on that path. Yet, far from seeing this UTC path as a completely unattractive Spread Strategy trade, Hughes instead told Sheehan about it. Sheehan wrote back two minutes later, noting “da da [i.e. Day-Ahead Day-Ahead] perfectly 0 [zero]”:¹⁶⁷



Sheehan was correct: there had never once been any spread between SouthImp and SouthExp in the Day Ahead market since shortly after the nodes were created in 2007. Hughes’s analysis likewise showed that SouthImp-Exp was not a viable path on which to arbitrage price differentials. Put simply, traders were so unlikely to realize profits from that path based on price spreads that no trader could see it as a candidate for profits without also collecting MLSA.

Although they knew that SouthImp-Exp was not a viable arbitrage-based UTC trade, Respondents nevertheless started making large volume trades on the path. In fact, they executed 12,000 MWh of trades on the path on the first day, June 19.¹⁶⁸ The next day, Peter Jones told his son (and trader) Robert Jones that they should add another 1,000 MWh per hour because “we didn’t move prices at all with what we put out for today.”¹⁶⁹ Over the next days and weeks, Coaltrain steadily increased its volume of SouthImp-Exp even though it never once experienced anything other than a “perfectly zero” DA-RT spread on the path; by the end of June, Coaltrain’s SouthImp-Exp trading had grown to more than 70,000 MWh per day, and frequently exceeded 100,000 MWh per day in July. At no point did they ever see a spread on the path, nor did they ever make money on it (except through MLSA).¹⁷⁰

¹⁶⁷ Hughes Test. Ex. CT-55.

¹⁶⁸ See *supra* text accompanying note 8.

¹⁶⁹ R. Jones Test. Ex. CT-RJ 36. As Peter Jones testified, Respondents understood that UTC trades could affect prices, and therefore they typically made smaller volume transactions when first trading on a new UTC path. P. Jones Test. Vol. II Tr. 85:2-6 (“It’s typical for us when we execute a transaction to start off with smaller megawatt volumes, bid into the market, see if we get picked up, see if we move prices. And you can tell if you move prices by the fact that you get partial megawatts on a certain hour.”).

¹⁷⁰ See *supra* text accompanying note 8.

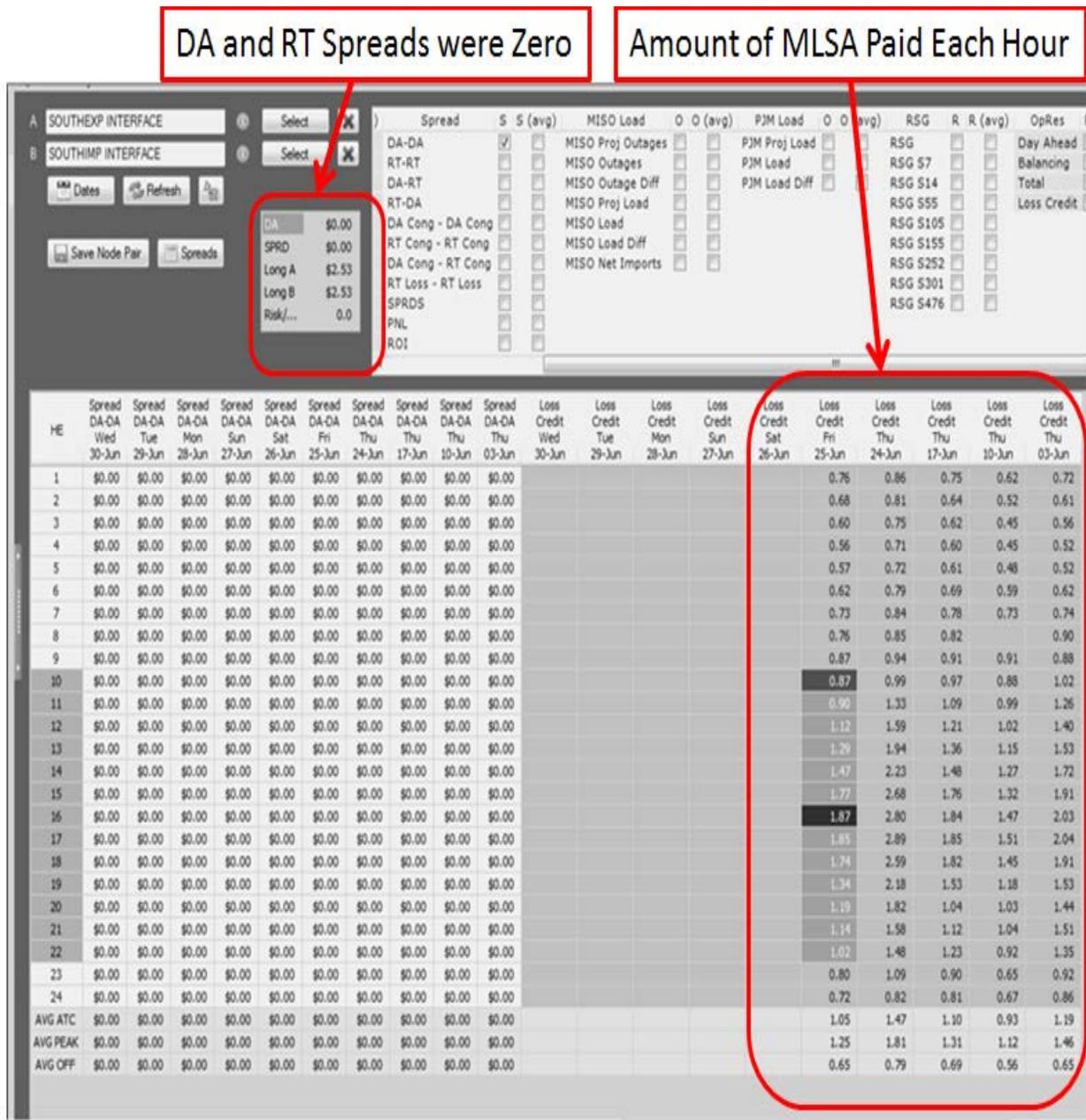
Respondents almost always used paid transmission to schedule their SouthImp-Exp trades. That of course meant that the trades were eligible for MLSA payments. However, they knew they did not have to use paid transmission. In fact, on June 20-21 they scheduled their SouthImp-Exp trades using free transmission—but in the process, rendered their trades ineligible for MLSA payments.¹⁷¹ Afterwards, they returned to using paid transmission, and continued to do so until they stopped making trades on that path. When Enforcement later asked why they did not use paid transmission on those two days, they responded: “we believe this was a mistake and we did intend to pay demand charges [*i.e.* transmission reservation fees] for these reservations.”¹⁷² This exchange, and the fact that they used free transmission on those two days, reveals that they did not have to, and they knew they did not have to, use paid transmission to do SouthImp-Exp trades. The only reason to use paid transmission—and thereby increase their transaction costs from ca. 21 cents to ca. 89 cents—was to lay a claim on MLSA payments.

Respondents were not surprised that SouthImp-Exp consistently cleared at zero every time they traded it. In fact, their software tools allowed them to check on the trade’s recent history, and they could see that it consistently cleared at zero after they started putting tens of thousands of MWh on the trade every day.

¹⁷¹ See Coaltrain Resp. to Enforcement Fourth Data Request, Question 10 (Jul. 3, 2012).

¹⁷² Coaltrain Resp. to Enforcement Fourth Data Request, Question 10 (Jul. 3, 2012).

On June 30, 2010 at 3:36 pm, Robert Jones saw that it cleared at zero and then he added the MLSA payments to the analysis and highlighted the “loss credits” for the peak hours during which Coaltrain had made its SouthImp-Exp trades:¹⁷³



¹⁷³ Excerpt of R. Jones Test. Ex. CT-RJ 111 (June 30, 2010 3:36 pm) (outlines and text boxes added).

Jack Wells looked at the same information that same day, and also saw that SouthImp-Exp settled at zero:¹⁷⁴

The screenshot shows the Node Analyzer interface. On the left, there are controls for selecting nodes (SOUTHEXP and SOUTHIMP), refreshing data, and saving node pairs. A summary table shows values for DA, SPRD, Long A, Long B, and Risk. The main area contains a detailed table with columns for Node, A, B, Spread, S, MISO Load, O, and RSG. Below this is a large data table with columns for HE, Basis, and various MW and OCL values across multiple days.

Node	A	B	Spread	S	MISO Load	O	RSG
DA			DA-DA	<input checked="" type="checkbox"/>	MISO Proj Outages		RSG
RT			RT-RT	<input type="checkbox"/>	MISO Outages		RSG S7
RT-DA			DA-RT	<input type="checkbox"/>	MISO Outage Diff		RSG S14
DA Cong			RT-DA	<input type="checkbox"/>	MISO Proj Load		RSG S55
RT Cong			DA Cong - DA Cong	<input type="checkbox"/>	MISO Load		RSG S105
DA Losses			RT Cong - RT Cong	<input type="checkbox"/>	MISO Load Diff		RSG S155
RT Losses			DA Cong - RT Cong	<input type="checkbox"/>	MISO Net Imports		RSG S252
DA - DA Cong			RT Loss - RT Loss	<input type="checkbox"/>			RSG S301
PNL			SPRDS	<input checked="" type="checkbox"/>			RSG S476
ROI			PNL	<input type="checkbox"/>			
Position			ROI	<input type="checkbox"/>			

HE	Basis	S1 MW (OCL)	S1 \$\$ (OCL)	S2 MW (OCL)	S2 \$\$ (OCL)	S3 MW (OCL)	S3 \$\$ (OCL)
HE1							
HE2							
HE3							
HE4							
HE5							
HE6							
HE7							
HE8							
HE9							
HE10							
HE11							
HE12	1500	500	\$1.09	500	\$0.99	500	\$0.79
HE13	1500	500	\$1.09	500	\$0.99	500	\$0.79
HE14	1500	500	\$1.09	500	\$0.99	500	\$0.79
HE15	1500	500	\$1.09	500	\$0.99	500	\$0.79
HE16	1500	500	\$1.09	500	\$0.99	500	\$0.79
HE17	1500	500	\$1.09	500	\$0.99	500	\$0.79
HE18	1500	500	\$1.09	500	\$0.99	500	\$0.79
HE19	1500	500	\$1.09	500	\$0.99	500	\$0.79
HE20	1500	500	\$1.09	500	\$0.99	500	\$0.79
HE21	1500	500	\$1.09	500	\$0.99	500	\$0.79
HE22	1500	500	\$1.09	500	\$0.99	500	\$0.79
HE23							
HE24							
Total	16500	5500		5500		5500	
Average	1500	500	\$1.09	500	\$0.99	500	\$0.79
Peak	1500	500	\$1.09	500	\$0.99	500	\$0.79

Even though they were not profiting from the spread, Respondents continued to do large trades on SouthImp-Exp until PJM’s IMM asked them to stop on July 27, 2010. They did these trades almost every day, typically for 12 or more hours each day, despite the fact that they never made any money from price differentials over six weeks of almost daily trading, and that the only source of profits was MLSA. Peter Jones explained their willingness to continue realizing losses on this trade by testifying that “[i]t was an

¹⁷⁴ Excerpt of Wells Test. Ex. 51 (June 30, 2010 7:51 am).

economically feasible trade for us to transact. So we did.” He further explained that what made it economically feasible was “[t]he cost of the trade and, you know, the fact that the market settlement charges and credits have the potential to balance each other out.”¹⁷⁵ But Respondents knew the trade was not profitable based solely on price differentials. After looking at the data and stating that SouthImp-Exp would not make any money on the spread alone, Wells testified it was a trade “I’m getting paid to execute.”¹⁷⁶ Adam Hughes testified that the “spark graph” on Coaltrain’s internal applications indicated that “[t]here’s little constraint risk” with SouthImp-Exp.¹⁷⁷

As Respondents increased their SouthImp-Exp trades, MLSA payments became more prominent in Respondents’ analysis. On June 21, Adam Hughes (who had previously estimated the rate at which loss credits were paid, and had “create[d an] application to find deals for loss credits,”¹⁷⁸) revised the firm’s software applications to “[i]nclude loss credits in [the] trade sheet.”¹⁷⁹ By June 24, Hughes was making queries on the firm’s databases to identify the “top 100” loss credits.¹⁸⁰ Hughes added “over collected loss credits in [the firm’s] PNL” application that same day as well.¹⁸¹

After the IMM asked Respondents to stop making those trades (in late July), they told the IMM that they had seen price divergence on that path: “At 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.”¹⁸² But this was misleading because by that time Respondents had carefully analyzed the SouthImp-Exp path and knew that the price spreads were infrequent and negligible—and, more to the point, Respondents’ OCL Strategy was successful in identifying trades such as SouthImp-Exp whose price spreads were reliably negligible.

Despite consistently losing money on the trade’s price spreads and transaction costs, Respondents kept doing it until the IMM called to ask them to stop. Their reasoning for doing so was clear: after trading more than 2.78 million MWh of trades on SouthImp-Exp, they obtained exactly *zero* profits from price differentials, paid more than \$2.42 million in transaction costs—costs they had elected to vastly increase by voluntarily using paid transmission when it was not necessary to do so—but they obtained a net profit of about \$2.6 million because they collected more than \$5.07 million in MLSA payments as a consequence of their huge trading volume. They voluntarily

¹⁷⁵ P. Jones Test. Vol. I Tr. 95:9-16.

¹⁷⁶ Wells Test. Tr. 136:3-138:1.

¹⁷⁷ Hughes Test. Tr. 119:8-12; Hughes Test. Ex. CT-46.

¹⁷⁸ Bates Nos. COALTRAIN012638, row 1951, Coaltrain012939, row 27.

¹⁷⁹ Bates No. COALTRAIN012639, row 1069.

¹⁸⁰ *Id.* at row 1786.

¹⁸¹ *Id.* at row 1800.

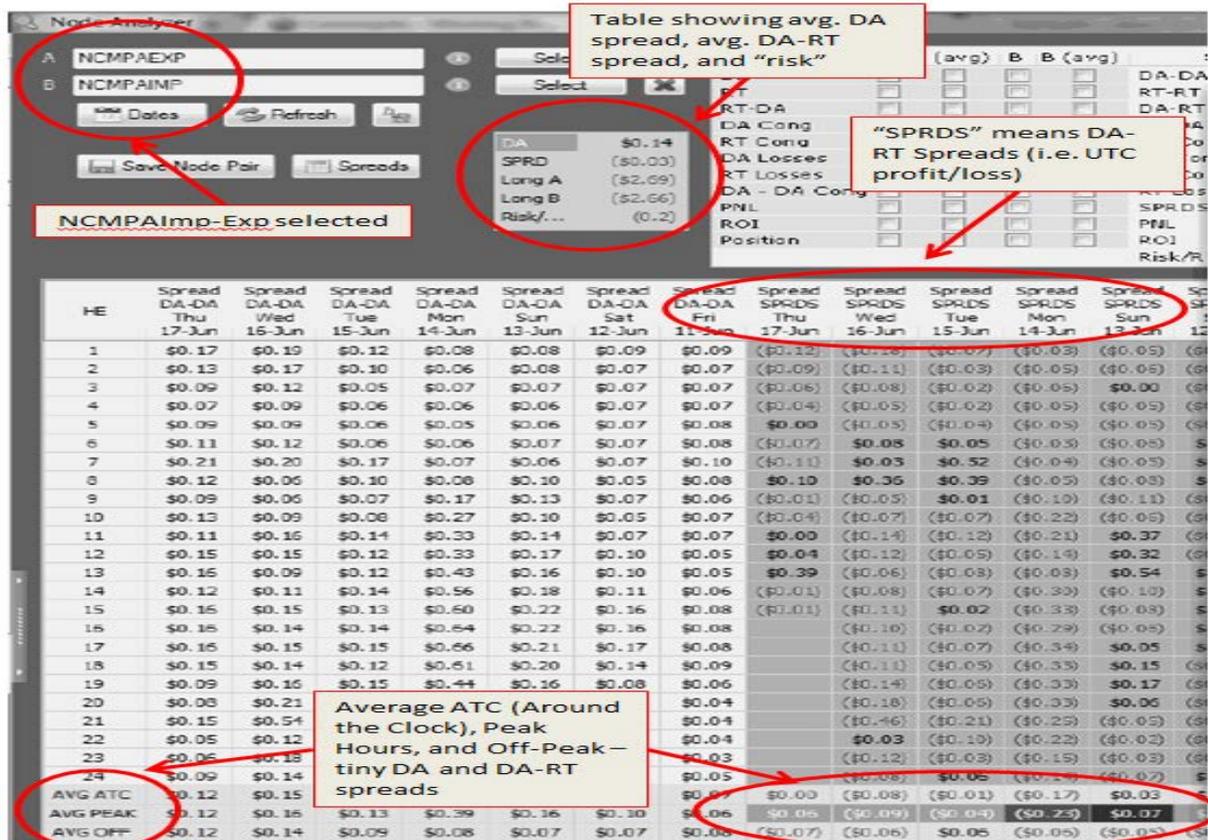
¹⁸² Bates No. COALTRAIN011541 (voice recording) at 6:27 – 6:54 (Aug. 6, 2010).

paid for transmission more than 98% of the time and admitted that they had made a mistake when they used free transmission. Their average bid price was only about 90 cents per MWh (just exceeding the typical transactions costs of 89 cents), but they cleared 100% of their SouthImp-Exp bids.¹⁸³ Put together, SouthImp-Exp proved to be a reliable source of (MLSA) profits because they could depend on its lack of price spreads to not get in the way of their MLSA-targeting strategy.

**c. Second Most Successful OCL Strategy Trade:
NCMPAImp-Exp (July 2010)**

“this thing is a pretty flatline thing. There’s not a lot of things that make it go bad; there’s not a lot of things that make it go good.”
(Jack Wells Testimony)

The next-best OCL Strategy trade was NCMPAImp-Exp, addressed by the Commission in *City Power*,¹⁸⁴ which Hughes discovered on June 17 using the same analytical tools that he had used earlier the same day to discover SouthImp-Exp.¹⁸⁵



¹⁸³ See *supra* text accompanying note 8.

¹⁸⁴ *City Power*, 152 FERC ¶ 61,012 at PP 142-160.

¹⁸⁵ Excerpt of Hughes Test. Ex. CT-46 (outlines and text boxes added). See also CT-44; CT-45.

As this table shows, just as with SouthImp-Exp, the historical data indicated to Hughes that NCMPAImp-Exp had small price spreads that were often negative (*i.e.* they would lose money if traded) and the spreads were insufficient to cover their basic costs. Even though this path was wholly unsuitable for arbitrage-based UTC trading—particularly if they were going to increase their transaction costs by unnecessarily paying for transmission—Hughes told Sheehan about this path very soon after he discovered it.¹⁸⁶

On July 2, Robert Jones used the company’s analytical tools to confirm that the path had little volatility and tiny, near-zero (and unprofitable) spreads.¹⁸⁷ That same day, Jones said he wanted to experiment with what he called a “meg tester for a high load/high loss credit day.”¹⁸⁸ (A “meg tester” was a low-MWh trade executed to learn how the PJM system would treat the trade.)¹⁸⁹ The “meg tester” trades used MISO as their OASIS sink, and therefore did not use paid transmission (and thus did not qualify for MLSA payments).

After the so-called “meg tester” proved successful, Respondents began executing the trade on a much larger scale—regularly exceeding 40,000 MWh per day—with one twist: unlike the “meg tester” traders, Respondents switched to using paid transmission, thereby voluntarily greatly increasing their transaction costs for no reason other than to collect MLSA payments.

Like SouthImp-Exp, the obvious purpose of making such huge MLSA-eligible trades on this path was to make money from the MLSA. Without the MLSA, the path was of no interest—and Respondents knew it. As Wells testified after reviewing some of the analytical data about NCMPAImp-Exp from Coaltrain’s internal applications (as captured by the Spector 360 screenshots of his own computer monitors), NCMPAImp-Exp was “[a] perfect example of a low-risk trade” because “[i]t looks like it has very little risk.”¹⁹⁰ As he explained further,

if 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. And that indicator right there [on the software application] is telling me that **this thing is a pretty flatline thing**. There’s not a lot of things that make it go bad; there’s not a lot of things that make it go good.¹⁹¹

The “positive shift” he referred to included MLSA payments: as he also explained, “we ran these low-risk filters to see something that gave us a net return, ... [which] had to be

¹⁸⁶ Hughes Test. Ex. CT-55; Bates No. COALTRAIN012639, row 750.

¹⁸⁷ R. Jones Test. Ex. CT-RJ 118.

¹⁸⁸ R. Jones Test. Ex. CT-RJ 126.

¹⁸⁹ R. Jones Test. Tr. 203:21-24.

¹⁹⁰ Wells Test. Tr. 132:2-13; Wells Test. Ex. 49.

¹⁹¹ Wells Test. Tr. 134:8-17 (emphasis added); Wells Test. Ex. 49.

greater than zero, including the cost of buying transmission and line losses and whatever.”¹⁹² Hughes, looking at a screenshot of a similar software application that he had helped design, also commented that the firm’s risk analysis of NCMPAImp-Exp “indicates that the value ... did not have a large magnitude.”¹⁹³ Sheehan likewise testified that the firm’s analytical software indicated that the path had a “1-cent difference between the LMP prices”¹⁹⁴ and was thus “fairly low risk.”¹⁹⁵ At the end of July, Robert Jones stated that NCMPAImp-Exp was an “OCL play.”¹⁹⁶ Wells was correct that NCMPAImp-Exp was “a pretty flatline thing,” as his July 30 analysis indicated:¹⁹⁷

Market	Owner	A (Buy)	B (Sell)	Risk	14d Gross PNL	Yes	No	Risk / Reward	DA-DA Fri 30-Jul	DA-DA Thu 29-Jul	SPRDS Fri 30-Jul	SPRDS Thu 29-Jul	By
PJM		NCMPAEXP	NCMPAIMP	1	\$114,504.67	2	0	0.260	\$0.10	\$0.14	\$0.02	\$0.37	Bob
PJM		POWERTON 5	NORTHWEST		(\$2,815.78)	2	0	(1.154)	\$1.68	\$1.07	(\$3.10)	(\$1.40)	Bob
PJM			123 MARE 34.5 KV L12372 LOAD		\$845.10	2	0	0.124	\$36.86	\$49.03	\$6.14	(\$10.09)	Bob
PJM		COOK 765 KV EHV	167 PLANO 765 KV EHV		\$0.00	2	0	(0.042)	\$0.92	\$1.19	\$0.81	(\$0.45)	Bob
PJM		OVEC	F387 CHICAGOH		\$0.00	2	0	0.275	(\$0.80)	(\$1.07)	\$1.64	(\$0.05)	Bob
PJM		112 WILTON	MISO		(\$6,295.21)	2	0	(1.579)	\$1.11	\$1.03	(\$2.35)	(\$1.81)	Bob
PJM		DUMONT	NIPSCO		\$1,391.17	2	0	1.413	(\$0.24)	(\$0.51)	\$2.18	\$1.06	Bob
PJM			H471 345 KV TR81 34 LOAD		\$0.00	2	0	0.022	\$35.62	\$46.74	\$4.31	(\$3.22)	Bob
PJM		MICHFE	BEAV DUQ UNIT2		\$21,198.89	1	0	0.468	\$1.30	\$2.08	(\$1.47)	\$2.03	Jeff
PJM		WYLERIDGE	MICHFE		(\$12,423.44)	1	0	(2.932)	\$0.08	(\$1.21)	(\$0.14)	(\$4.92)	Jeff
PJM	Jeff		BEAV DUQ 22 KV UNIT1 GEN		(\$3,735.65)	1	0	0.133	\$42.23	\$50.43	(\$0.32)	(\$8.43)	Jeff
PJM	Jeff		PATRIOTC 138 KV T1 LOAD		\$0.00	1	0	(0.148)	\$45.01	\$53.84	(\$7.44)	\$13.60	Jeff
PJM	Jeff		STOCKTO2 138 KV T1 LOAD		\$0.00	1	0	(0.151)	\$43.42	\$52.44	(\$7.85)	\$13.63	Jeff
PJM	Jeff		MARTINSV 34 KV T3 LOAD		\$0.00	1	0	(0.145)	\$44.28	\$53.16	(\$7.66)	\$13.36	Jeff
PJM	Jeff		MORRISNO 34 KV T1 LOAD		\$0.00	1	0	(0.139)	\$45.56	\$54.67	(\$7.77)	\$13.22	Jeff
MISO		CPLE			(\$22,376.64)	1	0	(0.011)	\$45.72	\$45.29	(\$5.49)	\$1.64	Greg
MISO		UPPC.ESCCT			(\$1,056.06)	1	0	(0.367)	\$60.57	\$71.24	(\$20.33)	(\$24.29)	Greg

spread	A	B	Class	Name
\$0.55	\$17.89	\$17.34	Primary	LINE 138 KV DANVILLE-EDANVILL

¹⁹² Wells Test. Tr. 131:2-11.

¹⁹³ Hughes Test. Tr. 112:18-22; Hughes Test. Ex. CT-44.

¹⁹⁴ Sheehan Test. Tr. 244:4-6; Sheehan Test. Exs. CT-26, CT-27.

¹⁹⁵ Sheehan Test. Tr. 260:13-16; Hughes Test. Ex. CT-32.

¹⁹⁶ Bates No. COALTRAIN012646, row 4197 (Jul. 30, 2010).

¹⁹⁷ Excerpt of Wells Test. Ex. 61 (circles added).

The “risk” column shows a perfectly straight line for NCMPImp-Exp, which means that Respondents’ own data analysis showed that it was almost entirely unaffected by constraints in the grid.¹⁹⁸

That the NCMPImp-Exp trades were intended to make money from MLSA rather than from price spreads is further demonstrated by the fact that, after the IMM asked them to stop making SouthImp-Exp trades, Coaltrain tripled its daily trading volume on NCMPImp-Exp and effectively replaced most of the OCL Strategy volume they had lost when they shut down their zero-spread SouthImp-Exp trades. This use of NCMPImp-Exp to replace the SouthImp-Exp trades is much like what the Commission found in *City Power*.¹⁹⁹ Coaltrain continued making NCMPImp-Exp trades until July 31, when the IMM asked them to stop.

Overall, Respondents traded NCMPImp-Exp over 17 trading days in July, clearing 1.088 million MWh, of which more than 99% of the volume used paid transmission (only the small “meg tester” trades did not).²⁰⁰ They cleared 100% of their bids, even though their average bid price was only 95 cents per MWh.²⁰¹ They received a net of over \$124,000 in UTC (spread) revenues (averaging just 11 cents of profit per MWh), paid \$893,000 in transaction costs (a majority of which were the transmission charges that they voluntarily paid), and received more than \$1.79 million in MLSA payments, for a net unjust profit of \$1.02 million.²⁰² Thus, Respondents experienced price spreads on the NCMPImp-Exp trades that lost money on average even had they not paid for transmission, and by paying for transmission when it was not necessary to do so, they ensured that the trades consistently lost a large amount of money, yet they continued to place those trades in ever greater volumes throughout the month of July. Only the MLSA payments made the path profitable. NCMPImp-Exp proved to be the second most successful OCL Strategy trade, offering dependable MLSA profits because its price spreads were reliably negligible.

d. The 38 Other OCL Strategy Trades (June-Sept. 2010)

***“#4 Import this morning behind NCMP & Southimp/Exp”
(Jack Wells Internal Note (Aug. 4, 2010))***

Coaltrain’s OCL Strategy was not confined to SouthImp-Exp and NCMPImp-Exp; those were just the “best” OCL trades. Rather, the OCL Strategy was a single overarching scheme that Respondents developed in early June and continued into early

¹⁹⁸ Miller Test. Tr. 44:8-13 (the graphic “depicts all of the constraints’ effects that PJM has called to date, the impact, positive or negative, on that specific point or trade.”). Thus, a straight line indicates that the trade was not affected by constraints, positively or negatively.

¹⁹⁹ *City Power*, 152 FERC ¶ 61,012 at PP 4, 148, 187.

²⁰⁰ *See supra* text accompanying note 8.

²⁰¹ *Id.*

²⁰² *Id.*

September, long after they promised the IMM that they would stop making “inappropriate” trades (and after PJM started a proceeding to change the tariff). Between June 15 and September 2, 2010, Coaltrain executed a large number of transactions on 38 paths (other than SouthImp-Exp and NCMPAImp-Exp) pursuant to the OCL Strategy.²⁰³ Although these other paths did not prove to have “perfectly zero” spreads, the evidence shows that Respondents chose them for the same OCL Strategy purpose: to profit from a volume-based MLSA strategy rather than to arbitrage price spreads. The importance of the OCL Strategy to the firm was highlighted by the fact that Hughes created a tool to allow the traders to “auto-submit” OASIS trades “for ocl”—presumably to shorten the time needed to do what had become a repetitive task, and to ensure that the trader entered the trade properly so that it was MLSA-eligible.²⁰⁴

²⁰³ Enforcement determined whether a trade was done for “OCL Strategy” purposes by examining several factors. First, Respondents identified the trade as an OCL path in Bates No. COALTRAIN0011540. Second, the trade was conducted between June 15 and September 02, 2010. Third, the trade was MLSA-eligible. There are additional trades that should have been flagged as OCL in Bates No. COALTRAIN0011540, notably SouthImp-Exp on July 5 and several days of BEAV DUQ UNIT1-MICHFE.

²⁰⁴ Bates No. COALTRAIN012641, row 1255 (Jul. 22, 2010).

and 7 cents) by saying that “loss credits could be in the 1.7 – 1.8 [\$1.70-\$1.80] range. Not too shabby.”²⁰⁷

The screenshot shows a trading application interface. At the top, there are buttons for 'Filter', 'Apply', 'Save', and 'Load'. Below these is a table with the following columns: Market, Owner, A (Buy), B (Sell), Risk, 14d Gross PNL, Yes, No, Risk / Reward, DA-DA Thu 19-Aug, DA-DA Wed 18-Aug, SPRDS Thu 19-Aug, SPRDS Wed 18-Aug, and By. A single row of data is visible:

Market	Owner	A (Buy)	B (Sell)	Risk	14d Gross PNL	Yes	No	Risk / Reward	DA-DA Thu 19-Aug	DA-DA Wed 18-Aug	SPRDS Thu 19-Aug	SPRDS Wed 18-Aug	By
PJM		BECKJORD 6	OVEC	+	(\$12,229.32)	1	0	0.051	(\$0.06)	(\$0.07)	\$0.00	\$0.07	Jack

Below the table is a chat window with the following text:

✓ Jack @ 07:06 Aug 19
 OCL play - Looking at like days, loss credits could be in the 1.7 - 1.8 range. Not too shabby.
 Recommend 300MW, 09 - 23.....

To the right of the chat window is a small table with columns 'rez', 'A', 'B', and 'Class'. The row below the header contains the text 'Secondary PJM OCL'.

While most of these other OCL trades were single-path trades (*i.e.*, A to B, where A and B are priced alike), a few were so-called “combo mambo” trades (*i.e.*, A to B/B to C) among the OCL trades as well. The OCL “combo mambo” trades had the same purpose as the single-path trades: to trade between two points (in this case, A to C, because node B cancels out) that had identical or nearly identical prices. One example of this was Coaltrain’s trades between East Bend 2 and Miami Fort 7 (*i.e.*, EBEND2 to Southwest / Southwest to MFORT7), discussed above.²⁰⁸

As the following Spector 360 screenshot shows, Robert Jones used the Node Analyzer application to assess together the two trades it would take to create the combination trade Miami Fort 7 and East Bend 2, and from this he could see that those nodes were priced alike (the “SPRDS” column, which is shaded, refers to DA-RT prices, was \$0.03 on average), and thus held little prospect of making profits from price

²⁰⁷ Wells Test. Ex. 92 (Aug. 19, 2010 7:07 am).

²⁰⁸ See *supra* at n.157.

differentials:²⁰⁹

HE	Spread DA-DA Wed 16-Jun	Spread DA-DA Tue 15-Jun	Spread DA-DA Mon 14-Jun	Spread DA-DA Sun 13-Jun	Spread DA-DA Sat 12-Jun	Spread DA-DA Fri 11-Jun	Spread DA-DA Thu 10-Jun	Spread DA-DA Thu 03-Jun	Spread DA-DA Thu 27-May	Spread DA-DA Thu 20-May	Spread SPRDS Wed 16-Jun	Spread SPRDS Tue 15-Jun	Spread SPRDS Mon 14-Jun	Spread SPRDS Sun 13-Jun	Spread SPRDS Sat 12-Jun	Spread SPRDS Fri 11-Jun	Spread SPRDS Thu 10-Jun	Spread SPRDS Thu 03-Jun	Spread SPRDS Thu 27-May	Spread SPRDS Thu 20-May
1	\$0.07	\$0.05	\$0.08	\$0.00	\$0.05	\$0.05	\$0.02	\$0.11	\$0.04	\$0.07	(\$0.06)	\$0.03	(\$0.03)	(\$0.03)	\$0.02	\$0.08	(\$0.14)	(\$0.07)	\$0.01	(\$0.02)
2	\$0.07	\$0.07	\$0.07	\$0.01	\$0.07	\$0.05	\$0.04	\$0.15	\$0.09	\$0.00	(\$0.08)	\$0.07	(\$0.02)	\$0.07	(\$0.02)	(\$0.03)	(\$0.19)	(\$0.05)	(\$0.07)	\$0.03
3	\$0.08	\$0.08	\$0.09	\$0.02	\$0.09	\$0.05	(\$0.05)	\$0.18	\$0.09	\$0.02	\$0.38	(\$0.05)	(\$0.05)	\$0.19	(\$0.05)	\$0.33	(\$0.15)	(\$0.05)	(\$0.07)	\$0.01
4	\$0.08	\$0.09	\$0.10	\$0.03	\$0.09	\$0.03	(\$0.07)	\$0.18	\$0.07	(\$0.03)	(\$0.06)	(\$0.07)	(\$0.08)	\$0.01	(\$0.07)	\$0.11	\$0.27	(\$0.08)	\$0.22	\$0.08
5	\$0.08	\$0.07	\$0.10	\$0.04	\$0.07	\$0.03	\$0.03	\$0.18	\$0.07	(\$0.01)	(\$0.10)	(\$0.04)	(\$0.09)	\$0.00	(\$0.06)	\$0.26	(\$0.06)	(\$0.06)	(\$0.06)	\$0.20
6	\$0.06	\$0.06	\$0.08	\$0.02	\$0.08	\$0.03	\$0.05	\$0.16	\$0.15	\$0.10	\$3.14	\$0.04	(\$0.09)	\$0.02	(\$0.05)	\$0.08	(\$0.21)	(\$0.07)	\$0.17	\$0.02
7	\$0.02	\$0.06	\$0.07	\$0.01	\$0.07	\$0.02	\$0.01	\$0.11	\$0.08	\$0.05	\$0.36	(\$0.21)	(\$0.08)	\$0.03	\$0.05	\$0.06	(\$0.06)	(\$0.04)	(\$0.05)	\$0.05
8	\$0.01	\$0.05	\$0.05	\$0.05	\$0.04	\$0.06	\$0.06	\$0.09	(\$0.01)	\$0.06	(\$0.02)	\$0.18	(\$0.05)	\$0.01	\$0.07	\$0.04	(\$0.24)	(\$0.06)	\$0.42	\$0.08
9	\$0.06	\$0.01	\$0.07	\$0.04	\$0.05	\$0.06	\$0.04	\$0.11	(\$0.01)	\$0.05	(\$0.03)	\$0.19	(\$0.09)	\$0.04	\$0.00	(\$0.01)	\$0.01	\$0.06	\$1.75	\$0.05
10	\$0.00	\$0.01	\$0.02	\$0.00	\$0.06	\$0.07	\$0.02	\$0.08	(\$0.04)	\$0.05	\$0.05	\$0.07	\$0.04	\$0.09	(\$0.01)	\$0.00	(\$0.29)	(\$0.03)	\$0.22	\$0.06
11	(\$0.05)	\$0.02	\$0.05	\$0.01	\$0.05	\$0.12	(\$0.02)	\$0.09	(\$0.03)	\$0.06	\$0.10	\$0.07	\$0.05	(\$0.48)	(\$0.01)	(\$0.02)	(\$0.30)	\$0.07	\$0.29	\$0.05
12	\$0.03	\$0.03	\$0.07	\$0.02	\$0.04	\$0.17	\$0.07	\$0.09	(\$0.03)	\$0.07		\$0.22	(\$0.03)	(\$0.47)	(\$0.01)	(\$0.01)	(\$0.75)	(\$0.03)	\$0.21	\$0.08
13	\$0.15	\$0.12	\$0.07	\$0.05	\$0.10	\$0.18	\$0.08	\$0.07	\$0.00	\$0.09		(\$0.01)	(\$0.07)	(\$0.05)	(\$0.09)	(\$0.02)	(\$1.28)	\$0.06	\$0.22	\$0.05
14	\$0.20	\$0.12	\$0.04	\$0.07	\$0.11	\$0.20	\$0.20	\$0.12	(\$0.02)	\$0.10		\$0.02	\$0.00	(\$0.05)	(\$0.13)	(\$0.04)	(\$0.39)	\$0.03	\$0.20	\$0.05
15	\$0.23	\$0.17	\$0.04	\$0.03	\$0.09	\$0.23	\$0.32	\$0.13	(\$0.05)	\$0.10		\$0.15	\$0.01	(\$0.08)	(\$0.42)	\$0.09	(\$1.46)	\$0.21	\$0.03	\$0.11
16	\$0.27	\$0.16	\$0.04	\$0.06	\$0.11	\$0.25	\$0.27	\$0.12	(\$0.07)	\$0.09		\$0.17	\$0.03	(\$0.09)	(\$0.25)	(\$0.07)	(\$0.76)	\$0.33	(\$0.22)	\$0.05
17	\$0.27	\$0.18	\$0.08	\$0.11	\$0.12	\$0.25	\$0.06	\$0.10	(\$0.09)	\$0.09		(\$0.01)	(\$0.05)	(\$0.16)	(\$0.03)	\$0.07	(\$0.80)	\$0.34	(\$0.10)	\$0.05
18	\$0.26	\$0.19	\$0.03	\$0.11	\$0.14	\$0.24	\$0.10	\$0.09	(\$0.12)	\$0.08		(\$0.01)	(\$0.02)	(\$0.13)	(\$0.04)	\$0.10	(\$0.07)	\$0.20	\$0.21	\$0.05
19	\$0.22	\$0.04	\$0.10	\$0.12	\$0.13	\$0.21	\$0.11	\$0.07	(\$0.05)	(\$0.09)		\$0.15	\$0.04	(\$0.15)	(\$0.02)	(\$0.07)	(\$0.07)	\$0.15	\$0.24	\$0.24
20	\$0.15	\$0.02	\$0.03	\$0.07	\$0.08	\$0.19	\$0.05	\$0.05	(\$0.04)	(\$0.08)		\$0.17	\$0.11	(\$0.04)	(\$0.05)	(\$0.05)	\$0.06	\$0.17	\$0.19	\$3.97
21	\$0.20	\$0.05	\$0.06	\$0.05	\$0.05	\$0.17	\$0.06	\$0.04	(\$0.05)	\$0.07		\$0.13	\$0.05	(\$0.02)	\$0.01	(\$0.01)	\$0.05	\$0.16	\$0.16	\$0.05
22	\$0.00	\$0.11	\$0.05	\$0.04	\$0.06	\$0.17	\$0.07	\$0.12	(\$0.04)	\$0.10		\$0.07	\$0.25	(\$0.04)	\$0.02	\$0.21	(\$0.11)	\$0.06	\$0.19	\$0.01
23	\$0.13	\$0.08	\$0.09	\$0.08	\$0.09	\$0.14	\$0.09	\$0.07	(\$0.02)	\$0.02		(\$0.01)	\$0.02	(\$0.01)	(\$0.02)	(\$0.01)	(\$0.01)	\$0.08	\$0.11	\$0.05
24	\$0.04	\$0.01	\$0.00	\$0.00	\$0.05	\$0.10	\$0.00	\$0.05	(\$0.07)	(\$0.05)		\$0.08	\$0.03	\$0.06	(\$0.01)	(\$0.01)	\$0.11	\$0.06	\$0.12	\$0.09
AVG ATC	\$0.11	\$0.08	\$0.05	\$0.04	\$0.08	\$0.13	\$0.07	\$0.11	(\$0.01)	\$0.04	\$0.33	\$0.06	(\$0.01)	(\$0.05)	(\$0.05)	\$0.05	(\$0.29)	\$0.06	\$0.18	\$0.23
AVG PEAK	\$0.13	\$0.09	\$0.06	\$0.06	\$0.08	\$0.17	\$0.10	\$0.09	(\$0.04)	\$0.05	\$0.03	\$0.10	\$0.02	(\$0.10)	(\$0.07)	\$0.01	(\$0.41)	\$0.11	\$0.26	\$0.32
AVG OFF	\$0.06	\$0.06	\$0.07	\$0.02	\$0.07	\$0.05	\$0.00	\$0.14	\$0.07	\$0.02	\$0.51	(\$0.02)	(\$0.05)	\$0.04	(\$0.03)	\$0.11	(\$0.05)	(\$0.05)	\$0.03	\$0.05

This screenshot shows what Respondents saw: that the average UTC price spread for this path netted only \$0.03 per MWh for the selected period—a fraction of UTC transaction costs, even before paying to reserve transmission. Alongside other evidence of the purpose of OCL trades, and the fact that Respondents tagged this trade as such, this “combo mambo” trade was devised and executed with the same purpose as other OCL trades.

Jack Wells also analyzed the same nodes, using the Node Analyzer tool to directly generate numbers for the East Bend-Miami Fort 7 combination trade. This analysis showed that the UTC spread (“SPRDS”) was a loss of 5 cents per MWh, and he

²⁰⁹ Excerpt of R. Jones Test. Ex. CT-RJ 14 (June 16, 2010 10:08 am).

compared that figure to the MLSA payments for those same hours:²¹⁰

The screenshot shows a software interface with a top control panel and a main data table. The control panel includes fields for 'A EAST BEND 2' and 'B MIAMI FORT 7', buttons for 'Select', 'Dates', 'Refresh', 'Save Node Pair', and 'Spreads'. A dropdown menu is open, showing values for DA (\$0.09), SPRD (\$0.05), Long A (\$1.32), Long B (\$1.38), and Risk/... (0.6). The main table has columns for HE, Spread SPRDS (Fri-Sun), Loss Credit (Wed-Sun), and Loss Credit (Fri-Sun). The table contains 24 rows of data, including an average row at the bottom.

HE	Spread SPRDS Fri 25-Jun	Spread SPRDS Thu 24-Jun	Spread SPRDS Wed 23-Jun	Spread SPRDS Tue 22-Jun	Spread SPRDS Mon 21-Jun	Spread SPRDS Sun 20-Jun	Loss Credit Wed 30-Jun	Loss Credit Tue 29-Jun	Loss Credit Mon 28-Jun	Loss Credit Sun 27-Jun	Loss Credit Sat 26-Jun	Loss Credit Fri 25-Jun	Loss Credit Thu 24-Jun	Loss Credit Wed 23-Jun	Loss Credit Tue 22-Jun	Loss Credit Mon 21-Jun	Loss Credit Sun 20-Jun
1	\$0.02	(\$0.07)	(\$0.04)	(\$0.01)	\$0.06	\$0.14						0.76	0.86	0.80	0.81	0.73	0.71
2	(\$0.03)	(\$0.01)	\$0.02	(\$0.64)	\$0.05	\$0.17						0.68	0.81	0.69	0.69	0.62	0.57
3	(\$0.06)	(\$0.03)	(\$0.03)	(\$0.05)	\$0.08	\$0.06						0.60	0.75	0.62	0.64	0.58	0.55
4	(\$0.03)	(\$0.14)	(\$0.09)	(\$0.03)	\$0.08	(\$0.06)						0.56	0.71	0.56	0.58	0.57	0.52
5	(\$0.03)	(\$0.16)	(\$0.24)	(\$0.57)	\$0.10	(\$0.03)						0.57	0.72	0.55	0.60	0.59	0.48
6	(\$0.06)	(\$0.03)	(\$0.23)	(\$0.85)	\$0.05	(\$0.01)						0.62	0.79	0.65	0.64	0.65	0.46
7	(\$0.12)	(\$0.05)	(\$0.15)	(\$0.11)	\$0.08	(\$0.11)						0.73	0.84	0.68	0.72	0.71	0.45
8	(\$0.18)	\$0.38	(\$0.17)	\$0.03	\$0.12	\$0.05						0.76	0.85	0.81	0.84	0.83	0.65
9	(\$0.04)	\$0.55	(\$0.17)	(\$0.05)	\$0.17	\$0.03						0.87	0.94	0.87	0.85	0.86	0.84
10	(\$0.01)	\$0.27	(\$0.10)	\$0.05	\$0.01	\$0.02						0.87	0.99	1.01	0.96	0.98	0.95
11	\$0.32	\$0.16	(\$0.23)	\$0.39	(\$0.05)	\$0.64						0.90	1.33	1.30	1.16	1.21	1.14
12	\$0.12	(\$0.18)	(\$0.25)	\$1.02	(\$0.14)	\$0.41						1.12	1.59	1.61	1.29	1.44	1.37
13	\$0.08	\$0.02	(\$0.23)	\$0.37	\$0.00	\$0.22						1.29	1.94	1.92	1.43	1.52	1.59
14	(\$0.14)	(\$0.15)	(\$0.42)	\$0.35	\$0.08	\$0.17						1.47	2.23	2.14	1.58	1.85	1.70
15	(\$0.14)	(\$0.35)	(\$0.33)	\$0.11	\$0.09	\$0.18						1.77	2.68	2.49	1.79	2.11	1.90
16	(\$0.10)	(\$0.33)	(\$0.62)	\$0.14	\$0.22	(\$0.18)						1.87	2.80	2.67	2.05	2.27	2.14
17	\$0.00	(\$0.33)	(\$0.71)	\$0.23	\$0.48	(\$0.18)						1.85	2.89	2.74	2.08		2.13
18	(\$0.25)	(\$0.43)	(\$0.46)	(\$1.13)	\$0.29	(\$0.23)						1.74	2.59	2.54	2.03	2.28	2.07
19	(\$0.25)	(\$0.33)	(\$0.41)	(\$0.35)	\$0.20	\$0.00						1.34	2.18	2.00	1.59	1.83	1.65
20	(\$0.18)	(\$0.34)	\$0.11	\$0.05	\$0.08	(\$0.02)						1.19	1.82	1.68	1.41	1.49	1.38
21	(\$0.12)	(\$0.37)	(\$0.28)	\$0.21	\$0.19	\$0.13						1.14	1.58	1.58	1.33	1.46	1.30
22	(\$0.18)	\$0.40	\$1.19	\$0.32	\$0.28	\$0.31						1.02	1.48	1.34	1.29	1.31	1.25
23	(\$0.23)	(\$0.05)	\$0.88	(\$0.10)	\$0.09	\$0.41						0.80	1.09	1.06	1.00	0.99	0.98
24	(\$0.17)	\$0.13	(\$0.12)	(\$0.13)	\$0.05	\$0.06						0.72	0.82	0.85	0.88	0.81	0.88
AVG ATC	(\$0.07)	(\$0.07)	(\$0.14)	(\$0.04)	\$0.11	\$0.09						1.05	1.47	1.38	1.18	1.20	1.15
AVG PEAK	(\$0.08)	(\$0.08)	(\$0.15)	\$0.10	\$0.13	\$0.12						1.25	1.81	1.73	1.42	1.50	1.44
AVG OFF	(\$0.06)	(\$0.05)	(\$0.12)	(\$0.31)	\$0.07	\$0.03						0.65	0.79	0.68	0.70	0.66	0.58

Respondents used this analysis to plan and execute some of their OCL Strategy trades, and they expected to have zero, or near-zero, price spreads because they anticipated that the two legs (which, like East Bend 2 and Miami Fort 7, had minimal spreads) would more or less cancel each other out.

The evidence shows that these other OCL Strategy trades were done to collect MLSA, not to make profits from price differentials. For instance, on August 22, Wells

²¹⁰ Excerpt of Wells Test. Ex. 48 (June 30, 2010 7:10 am).

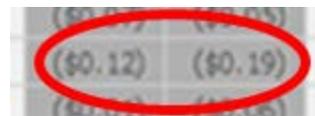
proposed an “OCL play” at OVEC-Miami Fort 8, commenting that a “like day” showed that “Loss Credits were 1.5 which is reasonable,” as follows:²¹¹

Market	Owner	A (Buy)	B (Sell)	Risk	14d Gross PNL	Yes	No	Risk / Reward	DA-DA Sun 22-Aug	DA-DA Sat 21-Aug	SPRDS Sun 22-Aug	SPRDS Sat 21-Aug	By
PJM		BSPEAKER 13.8 KV 1 GEN		1	\$2,527,238.95	2		(0.066)	\$36.46	\$42.86	(\$3.64)	(\$2.01)	Jeff
PJM		WYLERIDGE 500 KV EHV	TIDD_AEP 26 KV CD3 GEN		\$0.00	2		(0.849)	\$1.13	\$4.99	\$0.79	(\$5.34)	Pete
PJM			TIDD_AEP 26 KV CD3 GEN		\$226.58	2		0.138	\$34.09	\$40.46	(\$2.78)	(\$6.00)	Pete
PJM			ELRAMA 17 KV UNIT4 GEN		(\$7,351.16)	2		0.282	\$35.06	\$42.26	(\$17.04)	(\$7.67)	Pete
PJM	Neil	574 BART 138 KV TR73 12 LOAD	131 W OH 12 KV FW3114 LOAD		\$928.16	2		0.110	(\$0.18)	(\$0.17)	\$0.05	\$0.14	Neil
PJM	Jack	KAMMER2 69 KV LD4 LOAD	KAMMER2 138 KV FGD1 LOAD		(\$9,684.74)	2		(0.993)	\$0.70	\$21.92	(\$0.10)	(\$21.83)	Jeff
PJM	Jack	BECKJORD 6	OVEC		(\$11,017.20)	2		(0.037)	(\$0.10)	\$0.01	(\$0.04)	(\$0.03)	Jack
PJM	Jack	EAST BRID 3	OVEC		(\$14,631.07)	2		(0.060)	(\$0.19)	(\$0.11)	(\$0.05)	(\$0.05)	Jack
PJM	Jack	MIAMI FORT 8	OVEC	1.5	\$15,513.99	2		(0.171)	(\$0.21)	(\$0.05)	\$0.12	(\$0.19)	Jack
PJM		ELRAMA 4	OVEC		(\$17,822.99)	2		(0.046)	(\$0.60)	(\$0.52)	(\$0.08)	(\$0.07)	Jack
PJM		TANNERS CRK 3	OVEC		(\$32,307.87)	2		(0.285)	(\$0.18)	(\$0.07)	(\$0.24)	(\$0.33)	Jack
PJM		ZIMMER	OVEC		(\$14,835.90)	2		(0.073)	(\$0.25)	(\$0.13)	(\$0.05)	(\$0.08)	Jack
PJM		POWERTON 5	NORTHWEST		\$73,515.83	2		(0.817)	\$0.80	\$3.95	\$0.63	(\$4.10)	Jack
PJM		NEPTUNE	PECO		\$0.00	2		0.012	\$0.04	(\$0.38)	(\$0.12)	\$0.07	Neil
PJM	Neil	LAWRENCE 69 KV LOAD2 LOAD	BUCKINGH 35 KV 5 TR LOAD		\$0.00	2		(0.024)	(\$0.04)	(\$0.16)	(\$0.08)	\$0.00	Neil
PJM		WIND APS 138 KV T1 LOAD	TILTONS2 138 KV T1 LOAD		(\$141.14)	1		(0.817)	\$0.30	\$3.47	\$0.95	(\$3.33)	Jeff
PJM		SOUTHEAST	ELRAMA 4		\$0.00	1		2.585	\$6.07	\$5.87	\$19.92	\$10.36	Pete
PJM		MAHANSLA 138 KV T1 LOAD	SCADIZ 138 KV T1 LOAD		\$0.00	1		(0.988)	(\$0.12)	\$7.73	\$0.79	(\$8.02)	Jeff
PJM			USSCLAIR 138 KV LOAD2 LOAD		\$0.00	1		0.267	\$35.12	\$42.42	(\$15.38)	(\$7.65)	Pete
PJM		SOUTHEAST	CLOVERD2 138 KV T4		(\$5,037.83)	1		(0.138)	\$0.22	\$1.52	\$0.46	(\$0.47)	Pete
PJM		WYLERIDGE 500 KV LD1 LOAD	KAMMER2 138 KV FGD1 LOAD		(\$5,985.56)	1		(0.983)	\$1.27	\$29.73	\$0.00	(\$29.34)	Jeff

✓ Pete @ 10:18 Aug 22
good with this

✓ Jack @ 09:59 Aug 22
OCL play - Using 6/2 as a like day and limiting the hours (10 - 22), Loss Credits were 1.5 which is reasonable.
Recommend 250MW, 10 - 22.

He proposed this even though his own analysis showed UTC losses of 12 and 19 cents, respectively:



On August 15, Wells stated that a trade from CPLEImp to NCMPAExp, which showed UTC spreads of two pennies and almost no volatility, was “definitely worth playing”

²¹¹ Wells Screenshot 99 (Snapshot 72655 Aug. 22, 2010 10:21:26 am) (circles added).

because “Looking at like days for tomorrow I get 6-21 which posted a 1.5 loss credit.”²¹²

Daily Blotter

Monday, August 16, 2010

Trading Day Update Add Constraint Pricing Dates Hours: ATC

Trades Constraints Effects

Filter Apply Save Load

Market	Owner	A (buy)	B (sell)	Risk	1d Gross PNL	Yes	No	Risk / Reward	DA-DA Sun 15-Aug	DA-DA Sat 14-Aug	SPRDS Sun 15-Aug	SPRDS Sat 14-Aug	By	Source
PJM		BECKJORD 6	OVEC		\$3,025.78	1		0.290	(\$0.07)	(\$0.05)	(\$0.01)	\$0.39	Jack	Node Analyzer
PJM		EAST BEND 2	OVEC		\$7,193.56	1		0.237	(\$0.16)	(\$0.14)	(\$0.04)	\$0.33	Jack	Node Analyzer
PJM		MIAMI FORT 8	OVEC		(\$12,378.19)	1		0.322	(\$0.12)	(\$0.06)	(\$0.05)	\$0.45	Jack	Node Analyzer
PJM		NCPAEXP	CRLEIMP		\$14,747.00	1		(0.007)	(\$0.14)	(\$0.08)	\$0.02	(\$0.02)	Jack	Node Analyzer
PJM		STUART 4	OVEC		(\$13,132.00)	1		0.428	(\$0.57)	(\$0.51)	\$0.02	\$0.57	Jack	Node Analyzer
PJM		TANNERS CRK 3	OVEC		(\$18,603.65)	1		0.187	(\$0.35)	(\$0.36)	(\$0.11)	\$0.29	Jack	Node Analyzer
PJM		ZIMMER	OVEC		(\$4,904.17)	1		0.326	(\$0.20)	(\$0.15)	(\$0.02)	\$0.44	Jack	Node Analyzer

Jack @ 07:20 Aug 15
Looking at like days for tomorrow I get 6-21 which posted a 1.5 loss credit, definitely worth playing.
Recommend 300MW, 09 - 23.....

ret A B Class Name
Secondary PJM OCL

Once again, the size of the loss credit was clearly what motivated the trade.

The traders treated the other OCL trades as being slightly less perfect versions of SouthImp-Exp and NCMPImp-Exp (which they were asked to stop in late July). In August 2010, they occasionally described a particular OCL Strategy trade in their internal trading chat rooms by stating, for instance, that a particular “OCL play” was the “#4 Import this morning behind NCMP & Southimp/Exp”.²¹³

Jack @ 07:19 Aug 4
#4 Import this morning behind NCMP & Southimp / Exp. Biggest payout last 2 weeks - \$9 and biggest loss - \$3.
OCL play.....

Although the other OCL Strategy trades were not as successful as SouthImp-Exp and NCMPImp-Exp, Coaltrain executed them pursuant to the same overarching

²¹² Excerpt of Wells Test. Ex. 89 (circles added).

²¹³ Wells Spector 360 Snapshot No. 61376 (Aug. 4, 2010 7:22:05 am).

strategy to extract MLSA payments. Moreover, unlike SouthImp-Exp (which had a consistently zero spread) and NCMPAImp-Exp (which had negligible spreads), the rest of the OCL trades cumulatively had small *negative spreads* on average, and yet Respondents kept trading on them despite the repeated losses, further demonstrating that they were designed to capture MLSA. In August and September, well after they knew that PJM and the IMM disapproved of the volume-based strategy and that the tariff was in the process of being amended, Respondents researched and executed 445,000 MWh of OCL Strategy trades, losing \$144,000 on the price spreads, and \$471,000 overall, but realizing a net profit of \$255,000 because they received more than \$726,000 in MLSA.²¹⁴

Overall, between June 15 and September 2, 2010, Coaltrain executed the OCL Strategy on 38 paths (other than SouthImp-Exp and NCMPAImp-Exp) on a total of 161 trading days (averaging 4.23 days per path, minimum 1 day, maximum 16 days).²¹⁵ They cleared over 749,000 MWh on these trades, with an average bid price of \$2.03 per MWh (and yet they cleared more than 97% of their bids despite this low average bid price).²¹⁶ They lost \$221,000 in UTC (spread) revenues on these trades, paid an additional \$512,000 in transaction costs (including money they spent on OASIS transmission reservation charges, sometimes voluntarily), and received \$1.186 million in MLSA payments, for a net unjust profit of \$452,000.²¹⁷

C. Respondents Create False After-the-Fact Justifications

After discovering that they were making uneconomic trades to collect MLSA, the IMM made several calls to Respondents to ask them to stop making further trades on SouthImp-Exp (last trade: July 27) and NCMPAImp-Exp (last trade: July 31). Peter Jones told the IMM that they had made the SouthImp-Exp trades because their constraint analysis indicated that there would be price spreads on the path.²¹⁸ On August 3, Jones sent an email to the IMM stating that “Coaltrain Energy has no interest in engaging in transactions that you deem inappropriate” and then asked for another call because “it appears to me that a whole number of transaction types have the potential to be viewed as inappropriate.”²¹⁹ Jones later testified that he had been concerned about the propriety of the rest of the OCL trades.²²⁰ A few days after, on August 6, Jones and Sheehan (and their lawyers) called the IMM. In the course of that discussion, Jones and Sheehan

²¹⁴ See *supra* text accompanying note 8.

²¹⁵ *Id.*

²¹⁶ *Id.*

²¹⁷ *Id.*

²¹⁸ Bates No. COALTRAIN000328.

²¹⁹ P. Jones Test. Vol. II Ex. 21 (Bates No. COALTRAIN003501).

²²⁰ P. Jones Test. Vol. II Tr. 104:19-105:22.

agreed that SouthImp-Exp was “inappropriate,” and further agreed not to do such uneconomic trades in the future.²²¹

In August, Respondents began analyzing the historical trade data to justify their OCL Strategy trades to the IMM and to Enforcement. On August 5, 2010, Hughes calculated, apparently for the first time, that there had been some small price divergence on SouthImp-Exp on or about 38% of the time—a figure Respondents later tried to use to justify their SouthImp-Exp trades to the IMM and to Enforcement.²²² On August 19, Hughes sent an IM to Peter Jones that contained a link to a file called “SOUTHIMP SOUTHEXP price differences since June 2007.xlsx” for which Peter Jones thanked him.²²³ Hughes continued this type of analysis in September, providing Peter Jones with information regarding the company’s SouthImp-Exp and NCMPAImp-Exp volumes and prices.²²⁴ That same day, Sheehan asked Hughes “is it possible to determine the total number of 5 minute pricing intervals when the southimp and southexp had different prices?” Hughes then sent Sheehan a file with the data, and explained that the prices at the two points had diverged “37%” of the time since July 1, 2007.²²⁵

In September, Respondents continued sifting the evidence to find ways to mask the manipulative nature of their OCL Strategy trades. On September 16, for instance, Hughes sent an IM to Sheehan showing that the company made profits only on 40% of its UTC trades, and although he was “not sure if that is good or bad,” Sheehan said “nice its strong evidence of loss leaders.”²²⁶ Hughes then said “and July was our second best month even excluding southimp-southexp” to which Sheehan replied “thats good.”²²⁷ Sheehan then asked:²²⁸

Shawn Sheehan: for the profitability is there a way to link the trades *if they were spreads?*

Hughes: not easily

Shawn Sheehan: I didn’t think so

Shawn Sheehan: I would imaging [*sic*] the percentage woudl [*sic*] be higher if we did that

²²¹ Bates No. COALTRAIN011541 (voice recording) at 6:27 – 6:57 (Aug. 6, 2010).

²²² Bates No. COALTRAIN012642, rows 1783, 1789.

²²³ Bates No. COALTRAIN007156.

²²⁴ Bates No. COALTRAIN007165.

²²⁵ Bates No. COALTRAIN007953.

²²⁶ Bates No. COALTRAIN007990.

²²⁷ *Id.*

²²⁸ *Id.* (emphasis added).

This conversation thus also shows that Sheehan and others knew there was a distinct difference between their OCL Strategy trades, and their “spread” trades (and that the “spread” trades, not surprisingly, had larger spreads).

D. False and Misleading Statements: Coaltrain Concealed Evidence Material to this Investigation for Nearly Two Years

This investigation began in August 2010. For the next couple of years, Coaltrain omitted or concealed important and responsive evidence from its productions of documents to Enforcement, and then falsely or misleadingly attested to Enforcement that the productions were complete. And during this investigation, Respondents at times provided false and misleading testimony to Enforcement. The main issues are (1) Coaltrain concealed the Spector 360 data and made false statements about it; (2) Coaltrain concealed other documents and made false statements about it; and (3) Respondents made false and misleading statements in their testimony.

1. Coaltrain Concealed Data from its Spector 360 Monitoring Software

Coaltrain recorded vast quantities of responsive documents using a software application called Spector 360 that they did not produce to Enforcement—or even tell Enforcement it existed—for two years. In fact, Enforcement only learned about Spector360 on its own, after Enforcement had discovered an oblique reference to the company’s computer monitoring software in a document explaining why one of Coaltrain’s traders had been terminated in early June 2010.²²⁹ Spector 360 is a “keystroke logger” software monitoring application that automatically recorded everything employees did on their computers—from typing IMs and emails, to using applications, to surfing the web. It separately made screenshots of employees’ monitors about every twenty seconds. As the manufacturer states, the purpose of this software is to establish an “employee monitoring program” so that managers can “log, retain, review, and report on employee activity.”²³⁰ Spector 360 thus captured an enormous amount of data, including copies of documents (such as emails and IMs) that were responsive to Enforcement’s data requests. This software was loaded on the work *and* home computers of everyone at Coaltrain except Peter Jones and Sheehan.

The company regularly used Spector 360, and any claims that they “forgot” about it (such as what Sheehan said in his testimony)²³¹ are false. Respondents installed this software years before this investigation began, and maintained annual licenses (and received updates) through at least early 2011 (and Peter Jones and Sheehan installed Spector 360 at the new sets of companies they founded after they shut down Coaltrain). Peter Jones and Sheehan used the software to closely monitor their employees. In or

²²⁹ See Bates No. COALTRAIN000812.

²³⁰ <http://www.spector360.com/> (last visited Apr. 15, 2014).

²³¹ Sheehan Test. Tr. 88:14-22.

about 2009, they used Spector 360 to discover that then-employee Moussa Kourouma had been soliciting business in violation of his employment agreement. The Spector 360 information was so accurate that they downloaded pictures from Kourouma’s phone at Peter Jones’s request, tracked Kourouma’s bank transactions and his online real estate searches, and saved the data in a separate folder.²³² Afterwards, they complained to the Commission that Kourouma had made false and misleading statements in violation of 18 C.F.R. § 35.41(b), and Sheehan explained in an affidavit that the company had used “a commercially available software program for monitoring employee use” to “uncover[] evidence which led it to believe that Mr. Kourouma was actively involved in the formation, ownership, and operation of Quntum Energy LLC.”²³³ Due in part to Respondents’ complaint (derived from their Spector 360 recordings), the Commission assessed penalties against Kourouma for falsely stating that his infant daughter was the head of the new energy trading company that he controlled.²³⁴

But that was not the last time they used Spector 360’s recordings. In late May 2010—about two weeks before they started making their OCL Strategy trades—Jones and Sheehan used Spector 360 to review another trader’s activities (“Employee A”). In so doing, Peter Jones updated his access credentials (asking his IT administrator who managed the software to “send me something that has the access link, pw etc for spector? I don’t see that I saved the pw you sent before”),²³⁵ and then reviewed the data and terminated Employee A in early June.

Respondents had numerous other interactions with Spector 360. They paid annual licenses for it, and the IT department was frequently in contact with the manufacturer for technical help—including 14 times between August 2010 and January 2011, at the same time that they were responding to Enforcement’s data requests.²³⁶ Respondents’ emails also reveal that its employees and owners discussed Spector 360 in the weeks and months leading up to (and following) their false responses to Enforcement’s data requests.²³⁷

After Peter Jones and Sheehan ended their partnership in March-April 2011 (just a few months after Respondents informed Enforcement that they had completed their

²³² Bates No. COALTRAIN008250.

²³³ Energy Endeavors, Mot. for Leave to Intervene and Protest, Docket No. ER09-805-000, Shawn Sheehan Aff. at ¶ 7 (Apr. 3, 2009). They made another submission to the Commission in May 2009 that quoted Sheehan’s description of the “commercially available software program for monitoring employee use of the Company computer system.” Energy Endeavors, Supplemental Protest of Energy Endeavors LP, Docket No. ER09-805-000, at 1-2 (May 8, 2009).

²³⁴ *Moussa I. Kourouma d/b/a Quntum Energy LLC*, 135 FERC ¶ 61,245 (2011), *aff’d*, *Kourouma v. FERC*, 723 F.3d 274 (D.C. Cir. 2012).

²³⁵ Bates No. COALTRAIN008250.

²³⁶ SpectorSoft0002-0003.

²³⁷ *Infra* at Part IV.C.3.b.

response to the Second Data Request), Hughes (who joined Sheehan) coordinated with the IT employees who went with Peter Jones to backup and migrate the Spector 360 data; in so doing, Hughes demonstrated significant understanding of the software and obvious awareness that the recordings had been made and preserved.²³⁸

Finally, Respondents provided additional false statements to Enforcement when they stated, in response to the Fifth Data Request, that they could not access the Spector 360 data.²³⁹ In fact, Respondents had downloaded and reviewed the data before making that response.²⁴⁰

2. Respondents Concealed Other Documents

Respondents' material omissions were not limited to Spector 360. They also failed to produce other responsive documents and communications that they had saved on their computers, and they concealed this with false and misleading statements.

Adam Hughes—the employee tasked with searching for and preserving documents responsive to Enforcement's requests—kept an archive of relevant (and inculpatory) IMs on his computer that he did not produce.²⁴¹ These were only discovered from Enforcement's review of the Spector 360 materials. When questioned about those documents, he testified that the IMs had been stored on his computer and that he did not search his own computer for files responsive to Enforcement's requests²⁴² (or that of anyone else, despite being the employee tasked by Peter Jones and Shawn Sheehan to collect material responsive to this investigation).²⁴³ Consequently, Coaltrain did not preserve or produce any documents that had been stored on employees' computers until Enforcement confronted the company about the Spector 360 data.

In addition, as the company later conceded, Peter Jones saved responsive IMs on his computer at home, but did not produce those documents until after Enforcement discovered the Spector data and demonstrated that the company had failed to produce responsive materials.²⁴⁴ Enforcement was not made aware of this fact until late in 2012.

²³⁸ Bates No. COALTRAIN011610.

²³⁹ Letter and Affidavit (Jul. 20, 2012).

²⁴⁰ Bates No. COALTRAIN011649.

²⁴¹ *See, e.g.*, Hughes Test. Exs. CT-130, CT-133, CT-134, CT-153, CT-154, CT-155.

²⁴² Hughes Test. Tr. 238:19-23.

²⁴³ *Id.* at 238:24-240:17. Sheehan testified that Hughes had been charged with searching for and copying all responsive material, but that Sheehan did not follow up to ensure that it was done. *See* Sheehan Test. Tr. 36:11-15, 40:21-24, 43:13-20.

²⁴⁴ *See* Coaltrain Response to Enforcement Sept. 9, 2013 Subpoena, at 6 (Sept. 27, 2013). The IMs on Peter Jones's home computer were not preserved among the Spector 360 data. The company claimed it searched for the documents only after Enforcement confronted Hughes with his missing IMs. *See* Email of counsel (Oct. 15, 2012).

3. Respondents Made Other False and Misleading Statements to Enforcement

In addition, Respondents made numerous false and misleading statements to Enforcement during the course of this investigation. Such statements, taken together with Respondents' omission of responsive documents, contributed to impeding and significantly delaying Enforcement's investigation.

First Data Request. One such false and misleading statement was provided in the First Data Request, issued on August 18, 2010.²⁴⁵ Questions two, three, and four of that Data Request made what should have been a simple and uncontroversial set of requests to name all employees who made trades for Coaltrain, as follows:

2. Identify all employees either trading or scheduling power on behalf of Coaltrain Energy during the Relevant Period, including providing for each name, job title, job responsibilities, and the date on which the person began employment with Coaltrain Energy.
3. Identify all employees who either traded or scheduled power in PJM on behalf of Coaltrain Energy during the Relevant Period, including providing for each name, job title, job responsibilities, and the date on which the person began employment with Coaltrain Energy.
4. Identify all employees who submitted "Up-To Congestion transactions" in PJM on behalf of Coaltrain Energy during the Relevant Period, including providing for each name, job title, job responsibilities, and the date on which the person began employment with Coaltrain Energy.

Coaltrain (with Peter Jones's signature) responded on August 24, repeatedly naming the same six people who made UTC trades for the company, as follows:²⁴⁶

4. Identify all employees who submitted "Up-To Congestion transactions" in PJM on behalf of Coaltrain Energy during the Relevant Period, including providing for each name, job title, job responsibilities, and the date on which the person began employment with Coaltrain Energy.

The following employees submitted "Up-To Congestion transactions" in PJM on behalf of Coaltrain Energy during the relevant period.

Peter Jones, Partner. Owner, trader, analyst. Began employment January 1, 2006.
Shawn Sheehan, Partner. Owner, trader, analyst. Began employment January 1, 2006.
Jeff Miller, Job title-Trader. Job responsibilities-Analyst, scheduler. Began employment October 1, 2007.
Jack Wells, Job title-Trader. Job responsibilities-Analyst, scheduler. Began employment November 17, 2008.
Robert Jones, Job title-Trader. Job responsibilities-Analyst, scheduler. Began employment November 17, 2008.
Nicole Simpson, Job title-Trader. Job responsibilities-Analyst, scheduler. Began employment January 15, 2007, employment terminated June 4, 2010.

²⁴⁵ Enforcement First Data Request to Coaltrain (Aug. 18, 2010).

²⁴⁶ Coaltrain Resp. to Enforcement First Data Request, at 4 (Aug. 24, 2010).

But this response was not true. During the course of the investigation, Enforcement identified three other employees who had made UTC trades during the relevant period. This was supported by a number of documents,²⁴⁷ and Peter Jones himself conceded this to be true in his 2013 testimony.²⁴⁸ When asked about this contradiction, Peter Jones testified that they did not name those three people because “they weren’t PJM traders. If they submitted bids, it would be under the supervision of someone else, a PJM trader.”²⁴⁹ When asked whether the documents show that these three submitted trades, Peter Jones simply replied, “Not by my definition.”²⁵⁰ But Enforcement did not ask for the names of supervisors; Enforcement asked for those who submitted UTC and other bids.

Jack Wells’s Ability to Testify. Finally, Respondents made false and misleading statements in an effort to prevent or dissuade Enforcement from taking Wells’s testimony. Just days before he was scheduled to testify, Enforcement was informed that he “has been diagnosed with a brain tumor” and that “[h]e will either need to undergo immediate surgery or chemotherapy.”²⁵¹ Enforcement agreed to postpone the testimony pending improvements to his health, but subsequently discovered that Wells did not in fact have to undergo any medical procedure and that his condition was much less serious than described.²⁵² Wells proved able to testify shortly thereafter.

IV. Violations

There are two violations here: (1) market manipulation and (2) false and misleading statements.

A. Recent Precedent

The Commission recently issued penalty assessment orders in two other public proceedings relating to investigations of the same Up-To Congestion trading scheme. While those proceedings involve different parties, the law and the facts of those proceedings significantly overlap with this matter. As such, these matters provide recent precedent that is both analogous and persuasive. The orders, as identified *supra* are *City Power*, 152 FERC ¶ 61,012 (issued July 2, 2015), and *Chen*, 151 FERC ¶ 61,179 (issued May 29, 2015).

²⁴⁷ See, e.g., P. Jones Test. Vol. II Exs. 27 (identifying Kelli Sheehan), 28 (identifying Dan Jones), 29 (identifying Neil Huber).

²⁴⁸ P. Jones Test. Vol. II Tr. 114:16-115:16 (naming Kelli Sheehan and Neil Huber, and stating that Dan Jones may have done some UTC trading as well).

²⁴⁹ P. Jones Test. Vol. II Tr. 118:1-4.

²⁵⁰ P. Jones Test. Vol. II Tr. 124:9-11.

²⁵¹ Wells Test. Ex. Set 2 Ex. 1.

²⁵² Wells Test. Tr. 217:4-219:7. During the testimony, Wells’s attorney denied that she had made this representation to Enforcement. Wells Test. Tr. 218:18-21. When the email she had sent was produced as an exhibit, however, she did not seek to correct the record. Wells Test. Tr. 218:25-219:17.

1. *Chen* Order

The Commission's order in *Chen* was the first time that the UTC schemes from the summer of 2010 were addressed in a contested proceeding. In that order, respondents were found to have "designed and implemented a fraudulent UTC trading scheme to receive excessive amounts of MLSA."²⁵³ The specific scheme at issue in *Chen* involved using round-trip trades that "canceled each other out."²⁵⁴ As the Commission summarized it,

Respondents knew that their round-trip UTC trades would net no market position, and that on their own these round-trip trades would not generate a profit or a loss based on price spreads. But, by making these trades, Respondents collected MLSA payments exceeding the transaction costs they incurred for the trades, and yielding a significant profit, as they expected.²⁵⁵

Put simply, respondents in *Chen* designed and executed UTC trades to nullify their exposure to price risk, and doing so allowed them to safely magnify their trading volume so as to make large profits from per-MWh MLSA payments.

The Commission found that the round-trip trades "were routinely uneconomic and contrary to the market design purposes for which PJM offered the UTC product."²⁵⁶ The Commission therefore held that "[t]he evidence demonstrates that Respondents placed high-volume round-trip UTC trades without regard to market fundamentals and with the intent to benefit not from the spread on UTC trades but solely from the MLSA payments, and we find those actions to constitute fraud."²⁵⁷ The Commission separately and additionally held that the round-trip trades violated the Commission's longstanding prohibition of "wash trading" which "the Commission has long recognized as fraudulent conduct"²⁵⁸ that is "*per se* fraudulent and manipulative."²⁵⁹

The Commission also held that the "loophole" defense failed because "[a]n entity need not violate a tariff, rule or regulation to commit fraud."²⁶⁰ The Commission further held that the round-trip trades were contrary to "[t]he market purpose behind speculative UTC trades in PJM" which was "to arbitrage the market to encourage convergence between the day-ahead and real-time markets."²⁶¹ Therefore, the trades were deceptive

²⁵³ *Chen*, 151 FERC ¶ 61,179 at P 3.

²⁵⁴ *Id.*

²⁵⁵ *Id.* P 4.

²⁵⁶ *Id.* P 76.

²⁵⁷ *Id.* P 51.

²⁵⁸ *Id.* P 51; *see also id.* PP 103-107.

²⁵⁹ *Id.* P 103.

²⁶⁰ *Id.* P 94 (citations and internal quotations omitted).

²⁶¹ *Id.* P 95.

because “[t]he connected nature and purpose of the offsetting trades was concealed and created the illusion of high volume trading thereby subverting the PJM market.”²⁶²

While Respondents in this matter did not engage in round-trip trading, their scheme shared a common manipulative purpose with Chen’s: to do sham UTC trades for the purpose of profiting not from arbitraging price spreads but from collecting MLSA payments.

2. *City Power Order*

In *City Power*, the Commission found that, as in *Chen*, Respondents had “designed and implemented a fraudulent UTC trading scheme to receive excessive amounts of MLSA payments.”²⁶³ They achieved their common purpose by using three categories of high-volume UTC trades (what they, and the Commission, collectively called “loss trades”):

(1) “round-trip” 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; (2) trades between two PJM nodes (SOUTHIMP-SOUTHEXP) that are import and export pricing points of the same PJM interface designed to have equivalent prices; and (3) 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.²⁶⁴

That proceeding also involved false and misleading statements. In particular, respondents had falsely “denied the existence of relevant IMs in responding to written and oral questions by OE Staff.”²⁶⁵

The Commission separately addressed each of the categories of manipulative trades. As an initial matter, the Commission held that each of the three distinct strategies were done “with the goal of eliminating or minimizing spread changes and profiting solely based on collection of MLSA payments.”²⁶⁶ As the Commission put it, “[t]he evidence demonstrates that respondents engaged in their round-trip UTC transactions, as well as their one-way transactions from SOUTHIMP-SOUTHEXP and from NCMPAIMP-NCMPAEXP, not for hedging or arbitraging price spreads but instead to receive large shares of MLSA payments that otherwise would have been allocated to other market participants.”²⁶⁷

²⁶² *Id.*

²⁶³ *City Power*, 152 FERC ¶ 61,012 at P 3.

²⁶⁴ *Id.*

²⁶⁵ *Id.* P 9.

²⁶⁶ *Id.* P 43.

²⁶⁷ *Id.* P 92.

The Commission found City Power’s second strategy—SouthImp-Exp—was manipulative because the trades were “(i) lacking arbitrage or convergence purposes; (ii) placed without regard to market fundamentals of supply and demand; (iii) uneconomic; (iv) placed solely with the intent to garner MLSA payments; (v) without substantive risk; and (vi) deceptive.”²⁶⁸ The Commission noted that “[l]ike Respondents’ round-trip trades, the SOUTHIMP-SOUTHEXP trades were designed so that their price spread was zero, eliminating an economic risk,”²⁶⁹ and concluded “that similar to the round-trip trades, the SOUTHIMP-SOUTHEXP trades are fraudulent and violate section 222 of the FPA and the Anti-Manipulation Rule.”²⁷⁰

In particular, the Commission held that the *City Power* Respondents either knew before they started making the trades, or learned soon thereafter, that the path had zero pricing, and yet they continued to make the trade.²⁷¹ The Commission also held that the path was uneconomic because it was “routinely unprofitable when measured from a price arbitrage perspective, but zero spread trades were the expected result because, like their round-trip trades, these trades had no substantive economic risk.”²⁷² “Moreover,” the Commission explained, “even though they were not required to do so under the PJM tariff to effectuate these trades, respondents purchased transmission service to effectuate their SOUTHIMP-SOUTHEXP trades to be eligible for MLSA payments.”²⁷³ The Commission reiterated that “MLSA payments are not part of the underlying UTC spread trade”²⁷⁴ and that non-manipulative “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.”²⁷⁵ But because the SouthImp-Exp trades consistently settled with no price spread whatsoever—a fact that respondents in that matter expected would happen—the Commission determined that “like Respondents’ round-trip trades, the SOUTHIMP-SOUTHEXP trades were inconsistent with how the UTC product historically traded and unaligned with the arbitrage purpose of those trades.”²⁷⁶ The Commission then found that the trades were deceptive because, much as with the round-trip trades, “[t]he nature and purpose of the

²⁶⁸ *Id.* P 129.

²⁶⁹ *Id.*

²⁷⁰ *Id.*

²⁷¹ *Id.* P 132.

²⁷² *Id.* P 137.

²⁷³ *Id.*

²⁷⁴ *Id.* P 139.

²⁷⁵ *Id.* P 139 (quoting *Chen*, 151 FERC ¶ 61,179 at P 80).

²⁷⁶ *Id.*

trades—obtaining MLSA payments—was concealed and created the illusion of arbitrage trading between these points thereby subverting the PJM market.”²⁷⁷

Finally, the Commission held that City Power’s third “[l]oss [t]rade” strategy—NCMPAImp-Exp—was also manipulative even though the path “had shown small historical price spreads in the summer months (June to August) of 2009 and in June 2010.”²⁷⁸ Despite the small price spreads, the Commission found that the path “is nevertheless consistent with respondents’ ‘losses’ scheme reflected in the other two Loss Trade strategies: because respondents’ goal was to collect MLSA payments, they sought only to minimize their losses on the NCMPAIMP-NCMPAEXP trades so as not to interfere with their MLSA payment profits.”²⁷⁹ As the Commission held, the NCMPAImp-Exp trades were executed “not due to expectations of profitable price spreads, but instead as a refinement and continuation of their underlying scheme to generate transaction volumes to obtain MLSA payments that exceeded their expected transaction costs,” and that respondents “chose these nodes because they reflected a one-way transaction with a low expected price spread.”²⁸⁰

In analyzing the NCMPAImp-Exp trades, the Commission found that they were made pursuant to the same “[l]oss [t]rade” strategy as City Power’s other “[l]oss [t]rades,” whose single, overarching purpose was “to minimize their losses on the NCMPAIMP-NCMPAEXP trades so as not to interfere with their MLSA payment profits.”²⁸¹ Not only did respondents make statements revealing their purpose in making those trades, but the fact that they switched to NCMPAImp-Exp after stopping their SouthImp-Exp trades further demonstrated that those trades were part of the same manipulative scheme.²⁸² In addition, “the fact that Respondents chose to pay for transmission reservations underlying their UTC trades, when Respondents were not required to do so,”²⁸³ provided further evidence that NCMPAImp-Exp was part of the “[l]oss [t]rading” strategy to profit from MLSA payments. The Commission also looked at the trade data and concluded that the pattern of NCMPAImp-Exp trading differed significantly from City Power’s ordinary spread UTC trades, especially in terms of volume and the use of paid transmission.²⁸⁴

The Commission similarly found that the NCMPAImp-Exp trades were uneconomic despite the tiny price spreads, in part because, based on the data available to

²⁷⁷ *Id.* P 141.

²⁷⁸ *Id.* P 143.

²⁷⁹ *Id.*

²⁸⁰ *Id.*

²⁸¹ *Id.*

²⁸² *Id.* P 148.

²⁸³ *Id.* P 152.

²⁸⁴ *Id.* P 156.

them, “Respondents anticipated that any possible spread revenue from their NCMPAIMP-NCMPAEXP trades would not be sufficient to cover their transaction costs”²⁸⁵ Accordingly, the Commission held that the “strategy is improper and fraudulent” because “Respondents’ NCMPAIMP-NCMPAEXP 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.’”²⁸⁶ The Commission concluded:

Had Respondents wanted to benefit from the spread, they could have placed these trades using free transmission, foregoing the MLSA payments but greatly reducing the costs of their trading. Instead, they chose to pay for transmission reservations. Accordingly, we find Respondents followed a trading strategy to further a scheme to collect MLSA payments and that obtaining these MLSA payments was the motivating force behind their trades. For these reasons, we find Respondents’ NCMPAIMPNCMPAEXP trades to be fraudulent.²⁸⁷

Respondents in this matter did many of the same trades at issue in *City Power*. Approximately 84% of the volume of their OCL Strategy trades were on just two trades—SouthImp-Exp and NCMPAImp-Exp—that the Commission addressed in that order, and were manipulative for the same reasons.

B. Legal Analysis: Market Manipulation

By playing a substantial role in devising or executing the OCL Strategy, each of Respondents participated in a scheme to manipulate the PJM market. The OCL Strategy was manipulative because, like those recently addressed in the *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.”²⁸⁸

All of the trades at issue in this proceeding were made pursuant to the 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. Put differently, eliminating price risk eliminated their profit, if they were seeking profit based on arbitraging price differentials. But that is not what they were doing. By eliminating their price risk—that is, by making trades in which the price spread between two nodes was as reliably close to zero as they could find—Respondents were able to safely multiply their trading volume without concomitantly increasing their exposure to price fluctuations. Thus they were able to reserve millions of MWh of finite transmission capacity to implement this strategy. And then, in doing these trades, they

²⁸⁵ *Id.* P 157.

²⁸⁶ *Id.* P 158.

²⁸⁷ *Id.* P 159.

²⁸⁸ *City Power*, 152 FERC ¶ 61,012 at P 1; *Chen*, 151 FERC ¶ 61,179 at P 1.

voluntarily *increased* their transaction costs by paying for transmission when they knew from experience that it was often not necessary to do. But they did in fact have an ulterior purpose, for it was necessary to pay for transmission in order to be eligible for MLSA payments. And that was the real purpose of the OCL Strategy—to increase their trading volume so as to increase their per-MWh collection of MLSA payments. In so doing, they deceived PJM into awarding them MLSA for transactions that had no legitimate business purpose, and they tied up millions of MWh of finite transmission capacity, also for no legitimate business purpose.

For the sake of clarity, the OCL Strategy trades may be divided into three categories: (1) 2.79 million MWh of trades on the SouthImp-SouthExp path with a consistent, and predictable, zero spread; (2) 1.08 million MWh of trades on the NCMPImp-NCMPAExp path with a consistent, predictably negligible spread far too small to constitute price arbitrage; and (3) 749,000 MWh of trades on 38 other OCL paths that also had negligible or even negative price spreads. Although, as with any strategy, some of the OCL trades produced different results from others, each OCL trade was done with the same manipulative purpose.²⁸⁹

1. The Elements of Manipulation

In the wake of the Enron scandals and the western energy crisis, Congress took a significant step to deter market manipulation by enhancing the Commission's mandate and authority to effectively police the nation's energy markets. The Energy Policy Act of 2005 therefore revised the Federal Power Act (FPA) by adding section 222, which reads:

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 . . . 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.²⁹⁰

Pursuant to this mandate, the Commission promulgated the Anti-Manipulation Rule:

It shall be unlawful for any entity, directly or indirectly, 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 . . . to use or employ any device, scheme or artifice to defraud . . . or . . . to engage in any act, practice, or course of business that operates or would operate as a fraud or deceit upon any entity.²⁹¹

The elements of manipulation are (1) using a fraudulent device, scheme or artifice, or making a material misrepresentation . . . or engaging in any act, practice, or course of

²⁸⁹ See *supra* text accompanying note 8.

²⁹⁰ 16 U.S.C. § 824v(a) (2012).

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

business that operates or would operate as a fraud or deceit upon any entity; (2) with the requisite scienter; (3) in connection with the purchase or sale of wholesale electric energy or the transmission of electric energy subject to the jurisdiction of the Commission.²⁹² The Energy Policy Act also added section 316A of the FPA, which makes violators “subject to a civil penalty of not more than \$1,000,000 for each day that such violation continues.”²⁹³

2. Conduct: The OCL Strategy Was a Fraudulent Scheme, Device, or Artifice, or Act, Practice, or Course of Business That Operated as a Fraud or Deceit

The first element of an Anti-Manipulation offense is using a fraudulent device, scheme or artifice, or making a material misrepresentation, or engaging in any act, practice, or course of business that operates or would operate as a fraud or deceit upon any entity. Fraud is a question of fact that must be determined based on the particular circumstances of each case.²⁹⁴ The Commission “defines fraud generally, that is, to include any action, transaction, or conspiracy for the purpose of impairing, obstructing or defeating a well-functioning market.”²⁹⁵ In *Barclays Bank*,²⁹⁶ the Commission stated that certain facts could be indicative of a scheme to manipulate. These include, among others: (1) trading behavior inconsistent with supply and demand; (2) a marked difference in the trader’s non-manipulative trading behavior versus the trading patterns of the manipulative scheme; (3) speaking documents that indicate the trader’s intent; (4) whether the trades are uneconomic; and (5) failure to give plausible or credible explanations for the uneconomic nature of the trades.²⁹⁷ Moreover, it is well-established in the law that inferences of guilt can be drawn from evidence of lying or deception.²⁹⁸ Although all of

²⁹² *Prohibition of Energy Market Manipulation*, Order No. 670, FERC Stats. & Regs. ¶ 31,202, P 49, *reh’g denied*, 114 FERC ¶ 61,300 (2006) (Order No. 670).

²⁹³ FPA section 316A(b), 16 U.S.C. § 825o-1(b) (2012).

²⁹⁴ Order No. 670, FERC Stats. & Regs. ¶ 31,202 at P 49; *City Power*, 152 FERC ¶ 61,012 at P 58 (citing Order No. 670, FERC Stats. & Regs. ¶ 31,202 at P 49); *Chen*, 151 FERC ¶ 61,179 at P 49 (same).

²⁹⁵ Order No. 670, FERC Stats. & Regs. ¶ 31,202 at P 50.

²⁹⁶ *Barclays Bank PLC, et al.*, 144 FERC ¶ 61,041 (2013).

²⁹⁷ *Id.* P 32.

²⁹⁸ See, e.g., *United States v. Marfo*, 572 F. App’x 215, 231 (4th Cir. 2014) (quoting *United States v. McDougald*, 650 F.2d 532, 533 (4th Cir. 1981)); *United States v. Clark*, 45 F.3d 1247, 1250 (8th Cir. 1995); *Bhattal v. Berghuis*, No. 11-CV-15176, 2013 WL 3895363, at *7 (E.D. Mich. July 29, 2013) (it is reasonable to “infer consciousness of guilt from evidence of lying or deception”); 2 John H. Wigmore, *Evidence* § 276, at 122 (James H. Chadbourn rev. 1979) (“[i]t is universally conceded today that the fact of an accused’s flight, escape from custody, resistance to arrest, concealment, assumption of a false name, and related conduct, are admissible as evidence of consciousness of guilt, and thus of guilt itself.”).

these indicia need not be present to find market manipulation, they are all present here for each of the three categories of OCL Strategy trades.²⁹⁹

Overall, Respondents executed OCL Strategy trades on 212 trading days across 40 separate paths from June 15 through September 2, 2010.³⁰⁰ During that time, they cleared 4.65 million MWh of trades pursuant to the OCL Strategy. They lost approximately \$96,700 on UTC (spread) revenues, lost a further \$3.83 million on transaction costs, but received \$8.05 million in MLSA payments, for a net unjust profit of \$4.12 million.³⁰¹ The table at page 34 *supra* depicts the relevant data per OCL Strategy path.

a. Category One: SouthImp-Exp (Mid-June to Late July 2010)

The most successful OCL Strategy trade was SouthImp-Exp, which the Commission addressed in *City Power*.³⁰² This was a “path” between the same two points. After the interface was established and settled, price spreads were not possible except by human error.³⁰³ And, in the instances when a spread did appear, it was usually tiny—a few pennies—and negative, which means that, since the path could only be traded from SouthImp to SouthExp, traders would expect to lose money on the trade. Respondents analyzed this path and knew that it did not promise profits from arbitraging price differentials. But they also knew that it was not volatile, which meant that they wouldn’t lose much money if a price divergence did appear. In all, they made 2.78 million MWh of trades on SouthImp-Exp.³⁰⁴ They never once experienced a spread in either the Day-Ahead or Real-Time market, and thus never once experienced profits or losses. But they had to pay transaction costs, and they voluntarily increased those transaction costs to pay to reserve transmission on OASIS. They knew that they did not have to pay to reserve transmission on this path, for in fact they failed to do so for a couple of days shortly after they started making the trades—but, as they later told

²⁹⁹ Each of the Named Individuals played a substantial role in devising, directing, or executing the OCL Strategy on behalf of Coaltrain.

³⁰⁰ See *supra* text accompanying note 8.

³⁰¹ See *supra* text accompanying note 8.

³⁰² *City Power*, 152 FERC ¶ 61,012 at PP 49-50, 127-141.

³⁰³ SouthImp and SouthExp were designed to have the same weightings on the same busses. In cases where a bus de-energizes in one node, it should theoretically de-energize in the other node. In cases where a bus de-energizes and it does not automatically set to the other node the PJM system operator has the opportunity to correct the difference and realign the node. However, there were instances where the system operator did not correct the difference and realign the node. Under these circumstances the final real-time LMP price can be different at SouthImp and SouthExp.

³⁰⁴ See *supra* text accompanying note 8.

Enforcement, that had been a mistake.³⁰⁵ This choice to pay for transmission meant that they paid more than \$2.4 million dollars in transaction costs—without a single penny of gains from profitable price spreads.³⁰⁶

Although they were losing an enormous amount of money on transactions costs, they kept reserving hundreds of thousands of MWh of paid transmission, day after day, for more than six weeks. They did this because, as Peter Jones testified, it was an “economically feasible” trade. But what made it “economically feasible” were the MLSA payments—and only the MLSA payments. For every single MWh of the millions of MWh of SouthImp-Exp trades in which they used paid transmission, they received MLSA payments. This enabled them to collect more than \$5 million in MLSA payments as a consequence of their profitless SouthImp-Exp trades, and so they made a net “profit” of more than \$2.6 million.³⁰⁷

Each of the Respondents participated in the manipulative scheme to do the SouthImp-Exp trades pursuant to the OCL Strategy. Peter Jones, Robert Jones, and Jack Wells executed the SouthImp-Exp trades. Shawn Sheehan and Adam Hughes played a crucial role in identifying and analyzing the SouthImp-Exp path, and Sheehan, as the company’s co-owner, was also responsible for his subordinate’s conduct. Jeff Miller played an important early role in identifying and devising the OCL Strategy, which was the foundation upon which the SouthImp-Exp trades were made possible, and he directed Wells and others to execute the OCL Strategy.

i. Communications and other evidence demonstrate the existence of a scheme to defraud

Contemporaneous evidence demonstrates that Respondents used SouthImp-Exp to further their scheme to defraud. The OCL Strategy was hatched during a flurry of interest in loss credits in early June, when Respondents and others collected information about MLSA payments and analyzed the data for patterns. Hughes even created a chart showing the historical magnitude of MLSA payments,³⁰⁸ and a table showing that they would have made more money by paying for transmission and thereby receiving MLSA payments, than what they saved by not paying for transmission.³⁰⁹ Hughes provided a similar analysis that appears to show that the firm would have made more money paying for transmission than over scheduling its UTC trades (*i.e.* scheduling more MWh of UTC trades than what they reserved in OASIS).³¹⁰ Around that same time, Miller performed several Google searches for “OCL,” and then he and Sheehan had an extended IM

³⁰⁵ Coaltrain Resp. to Enforcement Fourth Data Request, Question 10 (Jul. 3, 2012).

³⁰⁶ *See supra* text accompanying note 8.

³⁰⁷ *See supra* text accompanying note 8.

³⁰⁸ Hughes Test. Ex. CT-14.

³⁰⁹ Hughes Test. Ex. CT-10.

³¹⁰ Bates No. COALTRAIN007889.

conversation about the new OCL Strategy, in which Miller made it clear that an OCL trade was not “strictly an upto” and Sheehan explained that if they thought a constraint might affect prices “then we should try and see if we can layer on the ocl strategy as well.”³¹¹ Meanwhile, Peter Jones talked to Miller (via IM) about planning OCL trades where “average on 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.”³¹² By June 15, Hughes began to work on developing software programs to identify trades targeting MLSA payments: **“create application to find deals for loss credits.”**³¹³

As part of his quest “to find deals for loss credits,” Hughes discovered the SouthImp-Exp trade on June 17. His analysis showed that the path had a zero Day-Ahead spread and mostly zero Real-Time spreads as well.³¹⁴ He then pulled the results for all of 2010, and sorted them by size of the UTC spread. What he saw was that SouthImp-Exp experienced a positive UTC spread exceeding 20 cents in only 20 hours during all of 2010 to that point—that is, the trade only made 20 cents or more less than one-half of one-percent of the time.³¹⁵ To anyone looking for arbitrage opportunities based on price differentials, what Hughes saw made it clear that SouthImp-Exp was a terrible trade (which may explain why Respondents had never traded on that path before). But that is not what Hughes thought—instead, minutes after he discovered it, he told Sheehan about it, who wrote back two minutes later to exclaim that the DA spread was “perfectly 0.”³¹⁶ Their interest in proceeding with these trades cannot be explained by the attractiveness of the path as an arbitrage opportunity based on price differentials, as Sheehan’s comment about the DA spread being “perfectly 0” is not consistent with a desire to seek profits from price spreads. Peter Jones and Robert Jones scheduled the first SouthImp-Exp trade at the very next opportunity (during the DA market on the morning of June 18), and instead of making a small test trade (which Respondents testified they would do when they were unsure about a trade), they executed 12,000 MWh (1,000 MWh per hour) that first day. The day after, when they saw that the trade had cleared with a perfectly zero spread, Peter Jones told Robert that they should add another 1,000 MWh per hour, noting that “[w]e didn’t move prices at all with what we put out for today.”³¹⁷ They continued increasing their trading volume on that path day after day, even though every day they saw absolutely no DA or RT spread. It was just a few days later that Hughes added an “OCL” column to the UTC portion of Coaltrain’s P&L

³¹¹ Miller Spector 360 Chat IM (June 10, 2010 9:34 am).

³¹² Miller Spector 360 Chat IM (June 10, 2010 8:48 am).

³¹³ Bates No. COALTRAIN012638, row 1951; see also COALTRAIN012639, row 27 (emphasis added).

³¹⁴ Hughes Test. Ex. CT-47 (June 17, 2010 2:31 pm).

³¹⁵ Hughes Test. Ex. CT-50; *see also* Hughes Test. Exs. CT-46, 47, 49.

³¹⁶ Hughes Test. Ex. CT-55.

³¹⁷ R. Jones Test. Ex. CT-RJ 36.

application, revealing how important the MLSA payments were becoming to the firm's profitability. In fact, the P&L application showed consistent losses on price spreads and transaction costs, but the subsequent MLSA payments brought them out of the red and into the black.³¹⁸

Not only did Respondents increase their trading volume despite the fact that they never realized any spreads on SouthImp-Exp, but the Spector 360 screenshots show that they knew they were not seeing any price spreads on that path. On June 30, for instance, Robert Jones used the firm's "Node Analyzer" to look at how the SouthImp-Exp trades had been doing, and he changed the program's settings so he could see the loss credit payments next to the spreads—and, to make it even clearer that he was focusing on the loss credits, he actually highlighted the loss credit column for the hours (HE10-22) during which they made their SouthImp-Exp trades.³¹⁹ Jack Wells used the "Node Analyzer" the same day also to see how SouthImp-Exp was doing, and he too saw that the DA and RT spreads stayed "perfectly 0."³²⁰ Furthermore, the traders themselves indicated, over and over on the firm's trading sheets, that SouthImp-Exp was part of the OCL Strategy.³²¹

Put together, this evidence shows that Respondents saw SouthImp-Exp as part of the OCL Strategy, and that both SouthImp-Exp specifically, and the OCL Strategy generally, were intended to target MLSA by executing large-volume UTC trades on paths that made no sense as arbitrage-based UTC trades. SouthImp-Exp was, simply put, the best OCL Strategy trade because it cleared "perfectly 0" over and over again, giving them large dependable profits without having to take on any risk or pay attention to market fundamentals.

ii. SouthImp-Exp Was Inconsistent with Supply and Demand

As in *City Power*, the pattern and timing of Respondents' SouthImp-Exp trades "reflect their fraudulent nature."³²² UTC trades, as the Commission has held, were intended to be a hedge or arbitrage DA and RT price spreads, but SouthImp-Exp is simply a "spread" between the same point—which is to say, it is not a spread at all. The random occasions when human error introduced a small spread do not change this conclusion.³²³ As the data that Respondents themselves saw demonstrated, the frequency, magnitude, and direction of those random spreads was not sufficient to warrant making rational arbitrage trades on the path.

³¹⁸ R. Jones Test. Ex. CT-RJ 128 (Jul. 2, 2010 12:13 pm).

³¹⁹ R. Jones Test. Ex. CT-RJ 111 (June 30, 2010 3:36 pm).

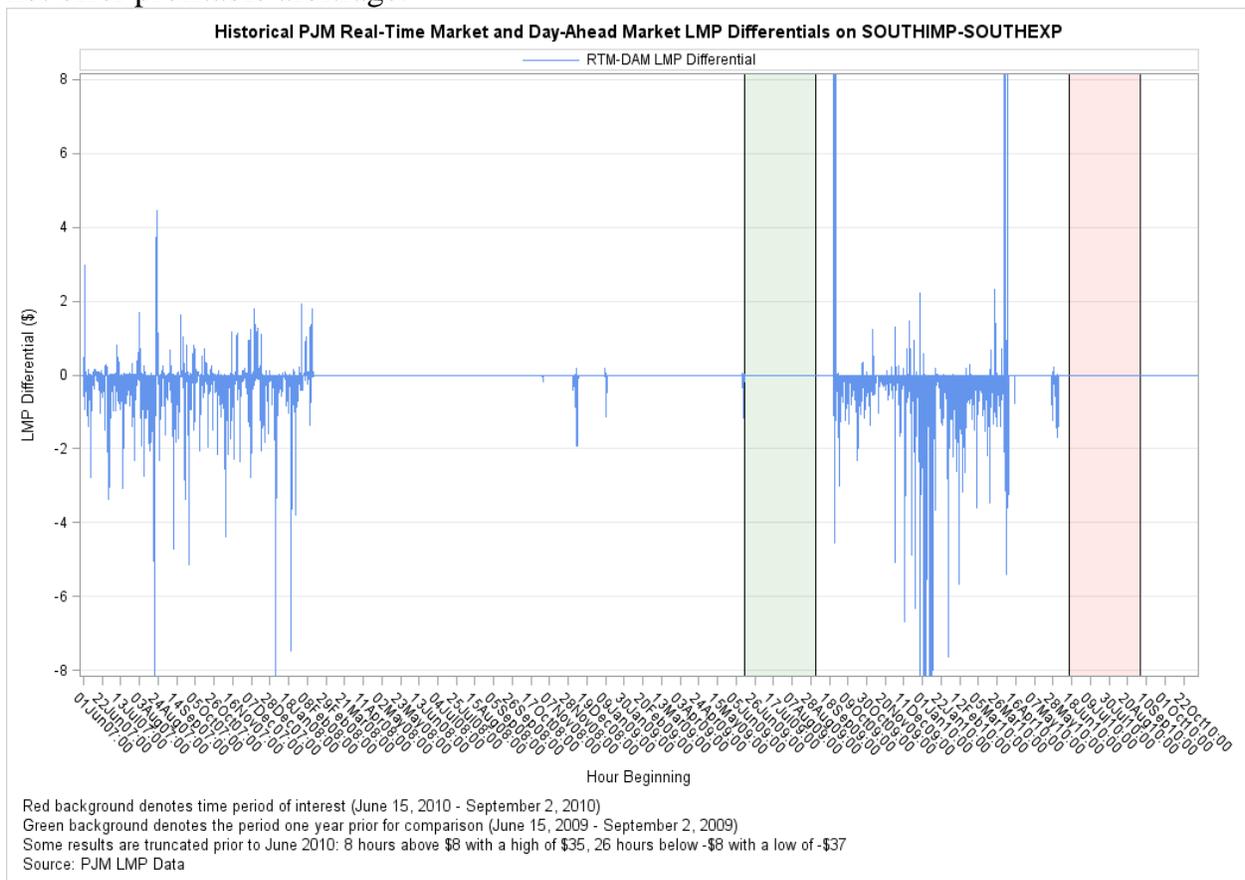
³²⁰ Wells Test. Ex. 51 (June 30, 2010 7:51 am).

³²¹ See, e.g., R. Jones Test. Ex. CT-RJ 95 (June 29, 2010 7:29 am).

³²² *City Power*, 152 FERC ¶ 61,012 at P 136.

³²³ See *supra* text accompanying n.303.

The following graph depicts the historical UTC spread on the SouthImp-Exp path (from PJM’s data).³²⁴ The green and pink columns highlight the spread as it appeared in the summer of 2009 and 2010. The chart shows that on the occasions when SouthImp-Exp experienced price divergence, the vast majority of the time it was negative—and, since SouthImp-Exp can be traded only in one direction (from SouthImp to SouthExp), that means that the trade would lose money. Moreover, the data from the summer of 2009—perfectly zero—provides a basis of the expectation of what the path’s profitability would be. Accordingly, even a trader unaware that SouthImp and SouthExp were tied together (except when human error caused it to diverge) would nevertheless see that it did not offer profitable arbitrage:



The obvious unprofitability of the path as a result of price differentials is probably why Respondents never did any trades on SouthImp-Exp before the OCL Strategy. And that was what Respondents in fact experienced—perfectly zero spreads every hour, every day. Yet Respondents did not react to this data in a rational way. Instead, they elected to make tens of thousands of MWh of trades almost every hour, day after day, all the while reaping massive losses on the UTC trades before MLSA and making it even harder to

³²⁴ PJM LMP data is publicly-available through the PJM website. See <https://dataminer.pjm.com/dataminerui/pages/public/lmp.jsf>

realize a profit from price differentials because they increased their transaction costs by voluntarily using paid transmission.

iii. Marked Difference Between Spread Strategy and OCL Strategy/SouthImp-Exp

There was also a significant and material difference between the non-manipulative Spread Strategy and the manipulative OCL Strategy. As the following table shows, there were stark differences between Respondents’ SouthImp-Exp trades and their contemporaneous Spread Strategy trades:³²⁵

Cleared Volumes	SouthImp-Exp (June 19- July 27)	Spread Strategy (June 15 - Sept. 2)
Volume	2.8 million MWh	2.1 million MWh
Number of Transactions	6,612 Transactions	38,262 Transactions
Avg. Volume per Transaction	425 MWh	70 MWh
% Using Paid Transmission	99%	18%
Avg. Bid Price	85 cents	\$4.47
% of Volume Cleared	100%	78%
Avg. UTC Price Spread per MWh (not incl. MLSA or transaction costs)	“perfectly 0”	82 cents
Transaction Costs	\$2.4 million	\$434,000
MLSA Payments	\$5 million	\$558,000
Overall Profit or Loss (without MLSA)	\$2.4 million loss	\$1.29 million profit
Avg. Per-MWh Profit or Loss (without MLSA)	86 cent loss	62 cent gain
Overall Profit or Loss (including MLSA)	\$2.64 million gain	\$1.855 million gain

In short, Respondents’ behavior with regard to SouthImp-Exp stood in stark contrast to what they did with their Spread Strategy trades. The SouthImp-Exp bid prices were much lower, but the clearance was much higher; the volume was much higher, but the price spreads were vastly smaller; the proportion using paid transmission was much greater—and their SouthImp-Exp transaction costs and MLSA payments were correspondingly higher. The trading conduct was not consistent with an attempt to profit from arbitrage based on price differentials alone.

³²⁵ See *supra* text accompanying note 8.

iv. SouthImp-Exp was Uneconomic

As in *City Power*, Respondents' SouthImp-Exp trades "were routinely unprofitable when measured from a price arbitrage perspective."³²⁶ In fact, as with *City Power*, the SouthImp-Exp trades settled at perfectly zero every single day. Moreover—and again, just as in *City Power*—Respondents "purchased transmission service ... to be eligible for MLSA payments."³²⁷ Then, despite experiencing zero spreads every single day—as they expected—they reacted by *increasing* their trading volume until it dwarfed their other trades. There was no good faith reason to voluntarily pay for transmission when it was not necessary to do so, and there was no good faith reason to increase their trading volume if they were experiencing perfectly zero spreads every single hour. The only rationale for doing this was that they knew that the trade would settle at or near zero, and that they would make a profit from MLSA payments—and the comfort of knowing that it would settle at or near zero every day made it safe for them to significantly increase their trading volume (which, in turn, increased their per-MWh receipt of MLSA payments).

b. Category Two: NCMPAImp-Exp (Early July to Late July 2010)

The next-best OCL Strategy trade, after SouthImp-Exp, was NCMPAImp-Exp, which the Commission also found manipulative in *City Power*.³²⁸ NCMPAImp-Exp often had tiny price spreads because of the way the import and export parts of the interface were defined, but these tiny spreads were not profitable.³²⁹ Adam Hughes discovered the path on June 17—around the same time that he also discovered SouthImp-Exp—and it was readily apparent that the path experienced little price volatility, which explains why Hughes informed Sheehan about it shortly after he had told Sheehan about SouthImp-Exp. And as with *City Power*, Respondents used NCMPAImp-Exp as "a refinement and continuation of their underlying scheme to generate transaction volumes to obtain MLSA payments that exceeded their expected transaction costs."³³⁰ Not only did they start making NCMPAImp-Exp trades after they had been making SouthImp-Exp and other OCL Strategy trades for some time, but they trebled their trading volume on that path (to nearly 140,000 MWh per day) when the IMM asked them to stop making their SouthImp-Exp trades.

³²⁶ *City Power*, 152 FERC ¶ 61,012 at P 137.

³²⁷ *Id.*

³²⁸ *City Power*, 152 FERC ¶ 61,012 at PP 142-160.

³²⁹ In February 2009, PJM employed the hi/low methodology for the NCMPAImp-Exp path. This methodology allowed for Day Ahead and Real Time divergence in hourly LMP's at both NCMPAImp-Exp.

³³⁰ *City Power*, 152 FERC ¶ 61,012 at P 143.

Respondents made about 1.08 million MWh of trades on NCMPAImp-Exp during the several weeks in July that they transacted on that path.³³¹ And as with *City Power*, Respondents made a small amount of money—\$0.11 per MWh, or about \$124,000 in total—in spread gains on their NCMPAImp-Exp trades, but that small spread profit was not nearly enough to pay for even the basic transaction costs associated with UTC trades, and since Respondents voluntarily increased their transaction costs by deciding to pay for transmission when they knew they did not have to do so, they ended up losing approximately \$768,000 on the trade in the month of July.³³² However, because they captured about \$1.78 million in MLSA payments for their NCMPAImp-Exp trades, they eventually netted a “profit” of approximately \$1.02 million on the trade.³³³

Each of Respondents participated in the manipulative scheme to do the NCMPAImp-Exp trades pursuant to the OCL Strategy. Robert Jones and Wells each executed the trades. Hughes identified and helped analyze the trade. Peter Jones and Sheehan were the co-owners of the company, and both supervised and directed the strategy. And Miller contributed to planning the OCL Strategy.

i. Communications, Testimony, and other evidence demonstrate the existence of a scheme to defraud

As with SouthImp-Exp, contemporaneous evidence demonstrates that Respondents used NCMPAImp-Exp to further their scheme to defraud. NCMPAImp-Exp was part of the same OCL Strategy as SouthImp-Exp. Hughes discovered the trade and once he came upon it, he analyzed the data and could see that it was a low-cost trade that exhibited very little price volatility—mostly just a few pennies of gain or loss.³³⁴ As he later testified, the firm’s software analysis “indicates that the value ... did not have a large magnitude.”³³⁵ Sheehan also testified that the firm’s analytical software indicated that the path had a “1-cent difference between the LMP prices”³³⁶ and was thus “fairly low risk.”³³⁷ But, as with SouthImp-Exp, this lack of profitability from arbitraging price spreads did not deter him, and in fact he let Sheehan know about the trade shortly after he had let him know about SouthImp-Exp.³³⁸ Robert Jones saw much the same thing when he reviewed the data a few weeks later,³³⁹ but instead of looking for better arbitrage-based UTC trading opportunities, he posted a note on the firm’s internal message board

³³¹ See *supra* text accompanying note 8.

³³² *Id.*

³³³ *Id.*

³³⁴ Hughes Test. Ex. CT-46 (outlines and text boxes added). See also CT-44, CT-45.

³³⁵ Hughes Test. Tr. 112:18-22; Hughes Test. Ex. CT-44.

³³⁶ Sheehan Test. Tr. 244:5-6; Sheehan Test. Exs. CT-26, CT-27.

³³⁷ Sheehan Test. Tr. 260:13-15; Hughes Test. Ex. CT-32.

³³⁸ Hughes Test. Ex. CT-55; Bates No. COALTRAIN012639, row 750.

³³⁹ R. Jones Test. Ex. CT-RJ 118.

and proposed to experiment with what he called a “meg tester” trade.³⁴⁰ He did two such “meg tester” trades, each of which used free transmission. Subsequently, Respondents executed more than a million MWh of trades on NCMPAImp-Exp before the IMM asked them to stop making the trades at the end of the month.

Respondents consistently lost money on NCMPAImp-Exp absent MLSA. Yet instead of stopping the trade, they increased their volume. Their purpose was to make trades on a path that experienced essentially no price movement. Wells later testified that NCMPAImp-Exp was “[a] perfect example of a low-risk trade” because “[i]t looks like it has very little risk.”³⁴¹ As he explained further,

if 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. And that indicator right there [on the software application] is telling me that this thing is a pretty flatline thing. There’s not a lot of things that make it go bad; there’s not a lot of things that make it go good.³⁴²

Further evidence that NCMPAImp-Exp was just a continuation of the same strategy as SouthImp-Exp was the fact that, after Respondents ceased making SouthImp-Exp trades at the IMM’s request, they immediately trebled the volume of their NCMPAImp-Exp trades—from about 50,000 to about 150,000 MWh per day—and kept it there until the IMM called to ask them to stop doing that trade as well.

ii. NCMPAImp-Exp Was Inconsistent with Supply and Demand

The NCMPAImp-Exp trades were inconsistent with the fundamentals of supply and demand. The price spread between them was marginal at best—a few pennies either way—and resulted from a very small difference in the way that the two are calculated. In any event, the data clearly indicates that a UTC trade between the two nodes did not offer price-based arbitrage profit—even the positive spreads did not exceed the unavoidable transaction costs of UTC trades except in the rarest of circumstances. A rational trader would not expect to make profitable returns from price differentials on that path, particularly since UTCs have transaction costs many times the size of the typical positive spread.

³⁴⁰ R. Jones Test. Ex. CT-RJ 126; Bates No. COALTRAIN011542, Vote Comments tab row 3382 (“test megs one hour in the off peak”); *id.* row 3386 (“meg tester for a high load/high loss credit day”).

³⁴¹ Wells Test. Tr. 132:2-13; Wells Test. Ex. 49.

³⁴² Wells Test. Tr. 134:8-17; Wells Test. Ex. 49.

iii. Marked Difference Between Spread Strategy Trades and OCL Strategy/NCMPA Imp-Exp

Just as with SouthImp-Exp, there was a significant difference between Respondents’ Spread Strategy trades and their NCMPA Imp-Exp trades. That is to be expected because Respondents saw NCMPA Imp-Exp as “[a] perfect example of a low-risk trade” because “[i]t looks like it has very little risk.”³⁴³ The following table shows the relevant differences between Respondents’ NCMPA Imp-Exp trades and their contemporaneous Spread Strategy trades:³⁴⁴

Cleared Volumes	NCMPA Imp-Exp (July 8-31)	Spread Strategy (June 15 - Sept. 2)
Volume	1.08 million MWh	2.1 million MWh
Number of Transactions	1,649 Transactions	38,262 Transactions
Avg. Volume per Transaction	660 MWh	70 MWh
% Using Paid Transmission	99%	18%
Avg. Bid Price	96 cents	\$4.47
% of Volume Cleared	100%	78%
Avg. UTC Price Spread per MWh (not incl. MLSA or transaction costs)	11 cents	83 cents
Transaction Costs	\$868,000	\$434,000
MLSA Payments	\$1.79 million	\$558,000
Overall Profit or Loss (without MLSA)	\$768,000 loss	\$1.29 million profit
Avg. Per-MWh Profit or Loss (without MLSA)	71 cent loss	62 cent gain
Overall Profit or Loss (including MLSA)	\$1.02 million gain	\$1.855 million gain

Put simply, Respondents’ behavior with regard to NCMPA Imp-Exp stood in stark contrast to what they did with their Spread Strategy trades. The NCMPA Imp-Exp bid prices were much lower, but the clearance was much higher; the volume was much higher, but the price spreads were vastly smaller; the proportion using paid transmission was much greater—and therefore the transaction costs were also much greater. The trading conduct was not consistent with an attempt to make a profit from arbitrage based

³⁴³ Wells Test. Tr. 132:2-13; Wells Test. Ex. 49.

³⁴⁴ See *supra* text accompanying note 8.

on price differentials alone. Instead, it closely resembled what they did with regard to their SouthImp-Exp trades.

iv. NCMPAImp-Exp Trades Were Uneconomic and Contrary to PJM UTC Market Design Purpose

Just as with SouthImp-Exp, the NCMPAImp-Exp trades were uneconomic and contrary to PJM’s market design. As noted above, the path did not offer profitable arbitrage based on price differentials—the price spread varied by a few pennies above or below zero. Instead, the trade was simply a vehicle to collect MLSA payments and not to profit from arbitrage.

c. Category Three: The Rest of the 38 OCL Strategy Paths (Mid-June to Early September 2010)

The OCL Strategy, as discussed above, was an attempt to identify and make trades on UTC paths that had little or no price risk in order to profit from MLSA payments. By finding trades where the price risk was effectively nullified, Respondents could safely increase their trading volume in order to profit from capturing more MLSA payments, thereby increasing their “OCL Strategy” profits. Thus, SouthImp-Exp and NCMPAImp-Exp were not the only OCL Strategy paths; they were merely the best ones. That is, SouthImp-Exp and NCMPAImp-Exp proved to be the least volatile, the most consistently flat trades from a risk perspective, and because those trades effectively nullified price risk, they offered the safest and most consistent profits from MLSA payments. As it turned out, it was not an easy matter to find UTC trades that had reliably flat prices, but that did not deter Respondents from trying. In fact, Respondents persisted in trying to identify and make other trades on other OCL Strategy before, during, and after they discovered and traded on the two “best” paths.

Enforcement’s analysis of the trade corroborates Respondents’ own words on the matter: the 38 other OCL Strategy paths were not attempts to profit from arbitrage based on price differentials, but rather—like SouthImp-Exp and NCMPAImp-Exp—those trades were intended to be vehicles for laying claim to MLSA payments. Although these other paths were not quite as perfect (from an OCL Strategy perspective) as SouthImp-Exp or NCMPAImp-Exp, nevertheless these trades were uneconomic and executed as part of an overarching manipulative scheme to making volumetric trades to obtain an outsize share of MLSA payments. The OCL Strategy paths are listed in the table at page 34, *supra*.

Overall, Respondents cleared 749,146 MWh on these 38 other OCL Strategy trades, with an average bid price of \$2.03 (and yet they cleared more than 97% of their bids with this low average bid price). They lost over \$221,000 in UTC (spread) revenues on these trades, paid an additional \$512,000 in transaction costs (including the money

they voluntarily spent on transmission reservation charges), and received \$1.19 million in MLSA payments, for a net unjust profit of \$453,000.³⁴⁵

Each of Respondents participated in the scheme to devise and execute the rest of the OCL Strategy trades. Peter Jones, Robert Jones, Sheehan, and Wells executed the trades. Miller participated in planning the OCL Strategy and Sheehan, as co-owner of Coaltrain, was additionally responsible for his supervisory role. Moreover, Hughes participated by helping the others research and plan the OCL Strategy.

i. Communications, Testimony, and other evidence demonstrate the existence of a scheme to defraud

Contemporaneous evidence shows that the 38 OCL Strategy paths other than SouthImp-Exp and NCMPAImp-Exp were made as part of Respondents' overarching scheme to manipulate the PJM market by making sham transactions for the purpose of collecting MLSA payments. Respondents themselves tagged each of these paths in their trading software as being part of the OCL Strategy, and Respondents spoke about the paths as being part of the OCL Strategy. While these trades were not as consistently profitable as SouthImp-Exp and NCMPAImp-Exp, they were plainly part of the same scheme.

First, these trades were plainly part of the OCL Strategy. Respondents themselves labeled the trades as such in their trading software.³⁴⁶ They also said they were OCL trades in their internal communications. For instance, in their internal trade blotter on June 17, Robert Jones suggested the combination trade Rockport to AK Steel (which became Rockport/Southwest/AK Steel) as an "OCL play" for "800 megs 12-22."³⁴⁷ (As was the case with combination trades, one leg might make a small profit and the other would make a small loss, the two mostly cancelling each other out in terms of prices.) On July 30, Peter Jones commented that the trade OVEC to EBEND 2 was "OCL 10-22."³⁴⁸ Robert Jones wrote back to concur.³⁴⁹ (Respondents started trading that point around that time.) Similarly, Robert Jones suggested OVEC to Zimmer on July 31 as an "OCL" trade "300 megs 10-22."³⁵⁰ Jack Wells commented that AK Steel to OVEC was the "3rd best Export OCL play" for August 4. On June 17, Robert Jones suggested the combination trade Rockport to AK Steel (which became Rockport/Southwest/AK Steel) as an "OCL play" for "800 megs 12-22."³⁵¹ (As was the case with combination trades, one leg might make a small profit and the other would make a small loss, the two mostly

³⁴⁵ See *supra* text accompanying note 8.

³⁴⁶ See Bates No. COALTRAIN011540.

³⁴⁷ Bates No. COALTRAIN011542, Vote-Comments tab row 2738.

³⁴⁸ Bates No. COALTRAIN011542, Vote-Comments tab row 4772.

³⁴⁹ Bates No. COALTRAIN011542, Vote-Comments tab row 4787.

³⁵⁰ Bates No. COALTRAIN011542, Votes-Comments tab row 4783.

³⁵¹ Bates No. COALTRAIN011542, Votes-Comments tab row 2738.

cancelling each other out in terms of prices.) On August 5, Peter Jones suggested an OCL trade and told the traders to “buy[] all trans.”³⁵² Jack Wells noted that the prices of some of the suggested nodes were the same when he called OVEC to Miami Fort 7 “Next best OCL play behind Marquis and Stuart 1-4, all source at OVEC. Miami Fort 7 & 8 price the same. OCL Play....”³⁵³

Some of these comments made it clear that the purpose for the trades was to collect MLSA payments. For instance, in their internal trade blotter on June 17, Robert Jones suggested the combination path EBEND2 to MIAMI FORT 7, noting “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.”³⁵⁴ Others made it clear that the desire to obtain OCL profits was separate from the desire to obtain congestion profits—but that the two could be combined in certain cases. Thus, on August 4, Jeff Miller suggested a trade might be worthwhile as an OCL/congestion mix: “300 MWs 10-22 to get paid \$2 for it...congestion play with OCL...with what I think is little downside...settles positive RT for most part.”³⁵⁵

Similarly, some of the comments made it clear that SouthImp-Exp and NCMPAImp-Exp were simply part of the overarching OCL Strategy. On August 5, Jack Wells suggested they make an “OCL play” that happened to be the “#3 Import this morning behind NCMP & Southimp/Exp.”³⁵⁶ (Wells later testified that that particular trade was an instance in which the price spread was expected to be negative, but the net was expected to be positive because of MLSA, which he viewed as perfectly acceptable.³⁵⁷)

In addition, Respondents regularly used the “fake” constraint called “PJM OCL” to tag their OCL Strategy trades. This is further indication that these trades were made as part of a single strategy.

Finally, in their testimony, Respondents showed that the OCL Strategy was a single, unified strategy that encompassed SouthImp-Exp, NCMPAImp-Exp, and the rest of the OCL Strategy trades. Wells testified that the OCL Strategy trades were not really congestion-based trades, and were identified by looking at the costs and credits (and minimal expected prices): “the great majority of the trading that we do is congestion-based” but the OCL Strategy trades “are not really congestion-based trades.”³⁵⁸ In sum, Respondents’ communications reveal that the OCL Strategy was a single, unified and

³⁵² Bates No. COALTRAIN011542, Votes-Comments tab row 5068.

³⁵³ Bates No. COALTRAIN011542, Votes-Comments tab row 5069.

³⁵⁴ Bates No. COALTRAIN011542, Votes-Comments tab row 2646.

³⁵⁵ Bates No. COALTRAIN011542, Votes-Comments tab row 4972.

³⁵⁶ Bates No. COALTRAIN011542, Votes-Comments tab row 5070.

³⁵⁷ Wells Test. Tr. 142:13-143:8; Wells Test. Ex. 49.

³⁵⁸ Wells Test. Tr. 32:25-33:15.

overarching strategy to collect MLSA payments by making high-volume UTC trades on paths that were expected to have little or no price risk.

ii. Inconsistent with Supply and Demand

The trade data also demonstrates that the rest of the OCL Strategy trades were inconsistent with supply and demand, and that the pattern of trading reflected the overall strategy to collect MLSA. They cumulatively lost money on the spread, and the trades were made even more unprofitable because Respondents used paid transmission for all of them. Put simply, these trades did not reflect an attempt to profit from price arbitrage. Instead, Respondents’ other OCL trades were part of the same overarching strategy as SouthImp-Exp and NCMPAImp-Exp, and they kept making these trades long after PJM had announced it was going to amend the tariff to prevent precisely this sort of trading from happening.

iii. Marked Difference between Spread Strategy Trades and the Rest of the OCL Strategy Trades

As with SouthImp-Exp and NCMPAImp-Exp, there was a significant difference between how Respondents made their Spread Strategy trades, and how they made their other OCL Strategy trades.³⁵⁹

Cleared Volumes	Other OCL Strategy Trades (June 15 - Sept. 2)	Spread Strategy (June 15 - Sept. 2)
Volume (Bid)	749,146 MWh	2.1 million MWh
Number of Transactions	3,457 Transactions	38,262 Transactions
Avg. Volume per Transaction	223 MWh	70 MWh
% Using Paid Transmission	98.6%	18%
Avg. Bid Price	\$2.03	\$4.47
% of Volume Cleared	97%	78%
Avg. UTC Price Spread per MWh (not incl. MLSA or transaction costs)	30 cent loss	83 cents gain
Transaction Costs	\$512,000	\$434,000
MLSA Payments	\$1.18 million	\$558,000
Overall Profit or Loss (without MLSA)	\$733,000 loss	\$1.29 million profit

³⁵⁹ See *supra* text accompanying note 8.

Cleared Volumes	Other OCL Strategy Trades (June 15 - Sept. 2)	Spread Strategy (June 15 - Sept. 2)
Avg. Per-MWh Profit or Loss (without MLSA)	98 cent loss	62 cent gain
Overall Profit or Loss (including MLSA)	\$452,000 gain	\$1.855 million gain

Altogether, Respondents did fewer but bigger transactions with the OCL Strategy, used paid transmission far more frequently, entered bid prices that were less than half that of the Spread Strategy, and yet they cleared far more of their OCL Strategy trades. They lost money on the spread with the OCL Strategy trades, and made the situation worse by paying far more in transaction costs, but also received much more MLSA (which was their only source of profits on these trades). This shows that Respondents' other 38 OCL Strategy paths were done for the same reason as SouthImp-Exp and NCMPAImp-Exp, and that they were fundamentally different from their Spread Strategy trades.

iv. The Rest of the OCL Strategy Trades Were Uneconomic and Contrary to PJM UTC Market Design Purpose

As with SouthImp-Exp and NCMPAImp-Exp, the rest of the OCL Strategy paths were uneconomic and done contrary to PJM's market design. First, most of these paths in fact lost money on the price arbitrage, and all cumulatively lost money on the UTC spread. Second, as Respondents themselves made clear in their communications, in their analysis, and in their trading patterns, these other OCL Strategy paths were done for the same reason as their SouthImp-Exp and NCMPAImp-Exp trades: to avoid price risk in order to profit from volumetric MLSA payments. As with *City Power*, this purpose is fraudulent and deceptive, and contrary to the market design.

3. Respondents Acted with Scienter

The facts also demonstrate that Respondents acted with scienter. Respondents knew what they were doing. They methodically developed the OCL Strategy, and they knew which of their trades followed that strategy. And they knew it was wrongful, which is why they omitted material evidence and made false statements to Enforcement, why they invented after-the-fact justifications for their OCL Strategy trades by falsely claiming that they were seeking price spreads when in fact they were seeking to neutralize spreads, and why they told the Commission in a docketed proceeding that they would not be trading to capture MLSA.

In numerous written communications, Respondents spoke about the OCL Strategy and their OCL trades. For instance, Sheehan asked Robert Jones to "check southeast to cplexp for a loss play" and Peter Jones responded affirmatively when asked "are those ocl plays just a repeat for tomorrow."³⁶⁰ Displaying similar knowledge of the OCL trades,

³⁶⁰ P. Jones Test. Vol. II Exs. 11, 14.

Robert Jones notified the other Traders that the “OCL plays are in” and referred to a proposed trade as an “OCL Opportunity,” while Jack Wells asked Miller whether there was “[a]ny reason I should not submit the OCL plays???”³⁶¹ Jeff Miller demonstrated similar knowledge when he discussed with Sheehan the ways in which the OCL Strategy differed from UTC trading.³⁶² The Traders’ intent is further demonstrated by the fact that they tagged their own trades as either “Spread” or “OCL” in the strategy line of Coaltrain’s software applications.³⁶³ And Adam Hughes played a significant role in devising and designing the strategy, “creat[ing an] application to find deals for loss credits,”³⁶⁴ and in fact he was the one who appears to have first discovered both SouthImp-Exp and NCMPAImp-Exp (and promptly informed Sheehan of both).

Respondents also knew that the OCL Strategy depended on the loss credits. They focused on the anticipated size of the loss credits when researching prospective OCL trades. Thus, Peter Jones explained that “average on peak losses have been a bit above 1.50,” and Wells frequently referred to the size of the anticipated loss credits when he proposed OCL trades.³⁶⁵ That is why the company added an OCL column to its profit and loss reports.³⁶⁶ That is also why, as the company later informed Enforcement, its failure to reserve paid transmission for some of the SouthImp-Exp trades was a mistake.

Respondents understood that OCL trades involved far less risk (in terms of changes to the price spread) than constraint-based UTC “spread” trades, and therefore they willingly expanded their trading volumes far beyond that which they risked on Spread Strategy trades. The relationship between anticipated risk and volume was well-known to them.³⁶⁷ In his testimony, for instance, Sheehan agreed that prudent trading volume depends at least in part on the risk associated with trades.³⁶⁸

Respondents also knew that the OCL trades were very different from legitimate Spread Strategy trades. They employed a complicated analysis involving what they termed “constraints” in order to anticipate which paths would be profitable as legitimate

³⁶¹ R. Jones. Test. Exs. CT-RJ 35, 75; Wells Test. Ex. 55. *See also* Wells Test. Ex. 59 (“This is an OCL play selected from the Daily strategy tool”); *id.* Ex. 61 (Robert Jones terming NCMPAImp-NCMPAExp as an “OCL play, I would suggest 9,500 megs 10-22”). Wells’s trade proposals repeatedly stated whether a proposed trade was for OCL reasons. *See, e.g.,* Wells Test. Exs. 59, 61, 68-69, 81-82, 87-89, 92-93, 96, 104.

³⁶² *See, e.g.,* Miller Test. Ex. CTJM-51.

³⁶³ *See, e.g.,* Jack Wells Test. Ex. 18; R. Jones Test. Exs. CT-RJ 92, 95-96.

³⁶⁴ Bates No. COALTRAIN012638, row 1951; *see also* Bates No. COALTRAIN012639, row 27.

³⁶⁵ P. Jones Test. Vol. II Ex. 5; Wells Test. Exs. 59, 69, 81-82, 87-89, 92-93, 104.

³⁶⁶ *See* R. Jones Test. Ex. CT-RJ 128.

³⁶⁷ Wells Test. Ex. 9.

³⁶⁸ Sheehan Test. Tr. 284:3-19.

UTC trades the next day.³⁶⁹ Sheehan testified that “all of the trading analysis that we did during the trade selection process was related to a constraint that we expected to happen on the grid the following day.”³⁷⁰ But Respondents applied the constraint-based method of analysis to few, if any, “OCL” trades. When Respondents did associate an OCL trade with a constraint in their spreadsheet, the named “constraint” typically was a meaningless placeholder (what they called a “secondary” constraint). For instance, Jack Wells said that a particular constraint was “[n]ot a true constraint, this was selected for the Export OCL which all go to OVEC.”³⁷¹ Another constraint was defined as “strictly for OCL plays.”³⁷² The most striking example of a fake constraint devised solely to justify OCL trading was what the Traders called the “PJM OCL” constraint, which the Traders variously described as a “null” constraint or “not a constraint.”³⁷³ Respondents persisted in pursuing the OCL Strategy even after they knew the strategy was manipulative. They switched to heavy trading on NCMPImp-Exp when the IMM asked them to stop making trades at SouthImp-Exp, and then they switched to making much larger volume trades on the other OCL Strategy trades when the IMM asked them to stop doing NCMPImp-Exp. In fact, they kept making OCL Strategy trades even after PJM submitted a request to change the tariff to mechanically prevent them from executing this strategy.

When questions were raised about the strategy, Jones and Sheehan began developing a false explanation that they chose their OCL trades based on price spread changes and constraints. For instance, they researched in August, but claimed to have previously relied upon, five-minute LMP records for their understanding of prices and spreads. These *post hoc* explanations of their behavior, which do not reflect their intent at the time of the trades at issue, corroborate that they were aware their trades could not be justified as legitimate market behavior.

Furthermore, it is evidence of scienter that Respondents provided misleading statements to the Commission about UTC trading. As discussed above, on June 9, 2010, Coaltrain submitted a filing (“jointly and severally” with a few other market participants, according to the submission)³⁷⁴ which assured the Commission that MLSA would not create “perverse incentives” for virtual traders “to engage in virtual transactions in order to capture a larger share of the surplus.”³⁷⁵ They further stated that, even with MLSA

³⁶⁹ See R. Jones Test. Ex. CT-RJ 2.

³⁷⁰ Sheehan Test. Tr. 139:23-25.

³⁷¹ Wells Test. Ex. 63; Wells Test. Ex. Set 3, Ex. 5 (selection from Bates No. COALTRAIN000310).

³⁷² Wells Test. Ex. 68.

³⁷³ P. Jones Test. Vol. II Ex. 1 (selection from Bates No. COALTRAIN004335); Wells Test. Tr. 179:18-180:18.

³⁷⁴ June 2010 Filing at 1.

³⁷⁵ *Id.* at 20 n.23.

available to virtual traders, “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” and that the availability of MLSA payments would not “significantly alter this calculus.”³⁷⁶ Yet the OCL Strategy (which they were already planning by June 9) was precisely the opposite of what they were telling the Commission—they did in fact have “perverse incentives to engage in virtual transactions in order to capture a larger share of the surplus” and OCL Strategy did *not* involve making trades “when they think they can profit from the difference between” Day-Ahead and Real-Time prices. Thus, the MLSA payments did in fact “significantly alter” their trading analysis—as Wells later testified, the OCL Strategy involved “the opposite analysis of normal trades” as it was not “congested-related.” Coaltrain’s unwillingness to be candid about its plans to make trades to collect MLSA payments further demonstrates Respondents’ knowledge that the OCL Strategy was wrongful.

Finally, there is the additional factor that Respondents tried to conceal substantial evidence from Enforcement during this investigation. As noted above, it is well-established in the law that inferences of consciousness of guilt—and thus of guilt itself—can be drawn from evidence of lying or deception.³⁷⁷ Indeed, “[i]t is universally conceded today that the fact of an accused’s flight, escape from custody, resistance to arrest, concealment, assumption of a false name, and related conduct, are admissible as evidence of consciousness of guilt, and thus of guilt itself.”³⁷⁸ Here, Respondents tried to impede Enforcement’s investigation in several ways. First, they withheld an enormous number of documents from Enforcement for the first two years of this investigation—and then they falsely and misleadingly told Enforcement that their responses were complete. This includes the Spector 360 evidence as well as other documents and communications. Second, they tried to prevent Enforcement from taking testimony from Jack Wells. Third, Respondents repeatedly provided false or misleading statements to Enforcement through the course of the investigation, from failing to name the correct employees in the First Data Request, to falsely stating that their response to the Second Data Request was complete, to misleadingly stating that they used a constraint-based analysis when making their SouthImp-Exp trades, to falsely stating that they had merely “forgotten” about the Spector 360 data when it should have been produced.

Put together, this is clear evidence that they engaged in wrongful conduct. Respondents had no reason to withhold evidence or provide false and misleading

³⁷⁶ *Id.*

³⁷⁷ See, e.g., *United States v. Marfo*, 572 F. App’x 215, 231 (4th Cir. 2014) (quoting *United States v. McDougald*, 650 F.2d 532, 533 (4th Cir. 1981)); *United States v. Clark*, 45 F.3d 1247, 1250 (8th Cir. 1995); *Bhattal v. Berghuis*, No. 11-CV-15176, 2013 WL 3895363, at *7 (E.D. Mich. July 29, 2013) (it is reasonable to “infer consciousness of guilt from evidence of lying or deception”).

³⁷⁸ 2 John H. Wigmore, *Evidence* § 276, at 122 (James H. Chadbourn, rev. 1979).

statements if they thought their trades were legitimate. The fact that they did so provides additional evidence that they knew their conduct was wrongful.

4. The Scheme Was in Connection with Jurisdictional Sales and Transmission

The scheme involving the OCL trades was in connection with jurisdictional transactions and transmission because UTC transactions were integrated into PJM's Day-Ahead pricing model, and thereby directly affected pricing and dispatch, and UTC trades at that time required the reservation of transmission, which affected available transmission capacity.³⁷⁹ Therefore in devising and implementing the OCL Strategy, it is clear that Respondents' manipulative conduct was "in connection with" jurisdictional transactions and transmission.

5. Respondents' Defenses to Manipulation Are Not Persuasive

Respondents provided a 23-page response to Enforcement's 1b.19 letter (plus shorter additional responses from the Named Individuals), a 74-page response (plus a 69-page consultant's report) to the Preliminary Findings Letter, a 14-page supplemental response to the PF Letter, and a 3-page supplemental response to the 1b.19 letter. In these submissions, Respondents raised a variety of legal and factual defenses to try to rebut Enforcement's findings. As discussed below, the Commission has already considered and rejected most of these contentions.

a. Argument 1: There Is No Evidence of Manipulation

i. Lack of Record Support

Respondents first contend that the facts "do not support a manipulation claim" because "Coaltrain's transactions were economically rational, transparent, devoid of any fraud or deceit, compliant with all tariff requirements, and caused no harm to the market."³⁸⁰ In particular, they assert that the trades were not uneconomic because some

³⁷⁹ *City Power* at PP 198-203; *Chen* at PP 144-148. See PJM Response to Question 7 of Enforcement Fifth Data Request (May 2, 2012) ("Up-To Congestion transactions can be marginal and set LMP in the Day-ahead Energy Market. The clearing of an Up-To Congestion transaction could affect the dispatch of generators. If an Up-To Congestion transaction contributes to the increase or decrease in congestion, generators in the constrained areas could be dispatched to increase or decrease the megawatt (MW) output."). See also *California Independent System Operator Corp.*, 110 FERC ¶ 61,041, at P 31 (2005) ("Section 205 of the Federal Power Act gives the Commission the authority and responsibility to ensure that rates for jurisdictional power sales are just and reasonable. The Commission also has jurisdiction over practices that affect those rates. Since 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.") (internal citations omitted).

³⁸⁰ Respondents' Resp. to Enforcement 1b.19 Letter at 5 (Oct. 19, 2015) (Respondents' 1b.19 Resp.).

of the paths (*i.e.* NCMPImp-Exp) made some profit on the price spread, and because Respondents were not aware that SouthImp-Exp was electrically equivalent until the IMM told them so in late July.³⁸¹

These contentions miss the mark. As shown above, Respondents performed their analysis and knew that SouthImp-Exp and NCMPImp-Exp (and the other OCL Strategy trades) were not opportunities to make profits based on price differentials. In fact, NCMPImp-Exp made only a tiny amount of money on the spread—and those tiny gains were more than cancelled out by the basic expenses associated with UTC trading. Yet despite the tiny prospective gains on NCMPImp-Exp (at best), Respondents elected to voluntarily increase their transaction costs—thereby making the slim prospects of ever making a profit on the trade even more unlikely—by using paid transmission when they knew it was not necessary to do so. As for SouthImp-Exp, the question is not whether Respondents actually knew that SouthImp and SouthExp were tied together—the question is whether, even in the absence of knowing that, the trade made any sense as a vehicle for price-based arbitrage. It did not, and they knew it—and they made it make even less sense by increasing their transaction costs on this path by using paid transmission when they knew it was not necessary to do so. And, in spite of losing money day after day on these trades, they elected to increase their trading volume. Far from providing evidence of an attempt to make profit from arbitrage, this shows that they were intent on making a profit from MLSA payments.

Respondents also contend that there is no evidence that the acts operated as a fraud or deceit.³⁸² They further claim that the OCL trades did not involve deception because the Commission was made aware of the strategy during the course of the *Black Oak* proceeding.³⁸³ That is incorrect, and the Commission rejected this argument in *Chen*, 151 FERC ¶ 61,179 at P 95, and in *City Power*, 152 FERC ¶ 61,012 at P 115.

ii. Economic Analysis

Next, Respondents argue that, in the opinion of a consultant they retained, Enforcement’s analysis is unsound.³⁸⁴ In particular, they highlight his contentions as follows:

- All of Respondents’ UTC trades “involved risk because all such trades faced volatile DA-RT price spreads and volatile loss credits.” Relatedly, he argues that there is no specific risk threshold below which a market trade becomes *per se* illegitimate and, therefore, evidence of market

³⁸¹ *Id.* at 6.

³⁸² Respondents’ 1b.19 Resp. at 6-7.

³⁸³ Respondents’ Resp. to Enforcement Preliminary Findings Letter at 38-39 (May 15, 2015) (Respondents’ PF Resp.).

³⁸⁴ Respondents’ 1b.19 Resp. at 7-9.

manipulation, nor is there a specific price spread threshold below which “the logic and purpose of UTC arbitrage is turned on its head.”

- Staff provides no analysis for 37 of the OCL Strategy trades.
- Respondents had no way of knowing that the historical price differences on SouthImp-Exp were the result of error.
- Staff wrongly equates Coaltrain’s activities with the “round-trip” scheme.
- Economically rational financial traders should be able to incorporate information about loss credits into their trading activities.
- Staff provides no evidence that the UTCs at issue harmed the PJM market in any way.

Each of these propositions is incorrect. First, the issue is not whether the OCL Strategy trades contained some modicum of risk, but whether the trades were done to profit from price arbitrage, or to profit from MLSA payments. The evidence indicates that the latter was true for the OCL Strategy trades—the paths Respondents selected for OCL Strategy trades did not reasonably offer profits from price differentials, and they made the possibility of such profits vanishingly small by voluntarily increasing their transaction costs. It is evident that the only reason to pay for transmission in the instances when it was unnecessary to do so was to collect MLSA payments. Second, it was Respondents themselves who identified (in their contemporaneous internal documents) the OCL Strategy paths, and as shown above, Enforcement’s independent analysis indicates that those paths were not done to reasonably profit from arbitraging price differentials. Third, it is immaterial whether Respondents actually knew that SouthImp-Exp were tied together because they knew that, as with NCMPImp-Exp and the other OCL Strategy trades, the SouthImp-Exp path offered no hope of making profits from price differentials, and Respondents indicated their true purpose by paying to reserve transmission when it was not necessary to do so. Fourth, Enforcement has never suggested that Respondents did any “round-trip” trades, but the fact remains that they had the same manipulative purpose as *Chen*: to do high-volume UTC trades as a vehicle to collect MLSA payments. Fifth, as the Commission stated in *Chen* and *City Power*, MLSA payments are not part of UTC transactions, and it is manipulative to do sham UTC trades for the purpose of collecting MLSA. Sixth, Respondents’ trades did in fact harm the market by diverting MLSA payments away from those who correctly deserved them, and by reserving large volumes of transmission for the OCL Strategy trades, Respondents deprived other market participants of the ability to effectuate their own transactions that required Day-Ahead transmission.

Furthermore, the consultant’s analysis of how the UTC market works and of OCL Strategy trades contained material inaccuracies. First, he claims that “UTC trades did not

‘consume’ physical transmission capacity.”³⁸⁵ But in fact UTC trades deplete non-firm ATC, which affects every physical and virtual trader who wants or needs to use non-firm transmission (which is cheaper than firm transmission).

Second, he contends that the prices on SouthImp-Exp were volatile.³⁸⁶ But he focuses, incorrectly, on the absolute frequency of price spreads, without any reference to whether the spread was profitable. In fact, as shown above (*supra* at 42-47), the spreads—when they appeared—were almost always negative, and because SouthImp-Exp could only be traded in one direction, that meant that the trade was not profitable the vast majority of time a spread appeared. He also displays a lack of familiarity with Respondents’ trades when he states that “economically rational traders would evaluate the volatility of DA-RT spreads to assess the risk-reward combinations associated with different trading strategies” and therefore would not place a trade every hour around-the-clock.³⁸⁷ But the consultant ignores the fact that the chart Hughes examined also showed that the average price spread for all on-peak hours for the first half of 2010 was a loss of about 27 cents. Had the Respondents been seeking price spreads, the data they reviewed showed them that they were likely to lose a lot of money if they traded every on-peak hour (HE 10-22). And yet that is precisely what Respondents did. What they did—repeatedly making money-losing trades for every on-peak hour—was inconsistent with seeking price arbitrage, but it was, on the other hand, consistent with maximizing their receipt of MLSA payments.

Similarly, for NCMPAImp-Exp, the consultant depicts data for the Real-Time spread without showing the concomitant Day-Ahead spread (which is necessary to ascertain the UTC value).³⁸⁸ Thus he purports to show large price spreads, but when (as shown above) the DA price is taken into account, the UTC value was tiny—far too small to pay even basic transaction costs, much less the inflated costs from their voluntarily and unnecessary use of paid transmission.

Finally, in analyzing the East Bend 2/Southwest/Miami Fort 7 path, the consultant asserts that East Bend 2 to Miami Fort 7 “was not a possible UTC trade because UTC trades were allowed only when an interface was either a source or sink point.”³⁸⁹ This reflects a fundamental mistake about what a “combo mambo” path actually is. Such trades involve two separate transactions that use a common interface (the “B” node) to make a trade between any two other nodes (“A” and “C”, hence the first trade is A to B and the second is B to C. By using this method, traders could schedule trades between two internal points that could not otherwise be done as a single UTC trade. And that is

³⁸⁵ Respondents’ 1b.19 Resp. Attachment 2, Expert Report of Dr. Jonathan A. Lesser, at PP 106-109 (May 15, 2015) (Lesser Report).

³⁸⁶ Lesser Report at PP 144-165.

³⁸⁷ *Id.* P 149.

³⁸⁸ *Id.* P 169.

³⁸⁹ *Id.* P 176.

what East Bend 2/Miami Fort 7 was—a combination trade that allowed Respondents to trade on the spread between two internal PJM nodes. His misunderstanding is further reflected by the fact that he cites the price spreads for each leg separately, and treats them as if they were entirely unrelated trades.³⁹⁰ But that is not correct. While the two paths individually have some significant price volatility, when put together as a combination trade they largely cancel each other out, which was Respondents’ clear intention.

b. Argument 2: *Chen* and *City Power* Do Not Apply

Next, Respondents contend that the Commission’s orders in *Chen* and *City Power* do not apply to this matter.³⁹¹ That is incorrect.

i. *Chen* Order

Respondents claim that *Chen* is inapplicable here because “Coaltrain never engaged in round-trip trades.”³⁹² It is factually accurate that Respondents did no round-trip trades, but that is beside the point. In both *Chen* and *City Power*, the Commission found that the scheme was manipulative because its purpose was to make “fraudulent UTC trades” to “receive excessive amounts of MLSA payments.”³⁹³ While *Chen*’s specific application of this manipulative purpose involved a different type of trading scheme than the one at issue here, Respondents’ manipulative purpose was precisely the same: to engage in sham UTC trades in order to collect MLSA payments. Furthermore, it is not a valid defense to note that Respondents did not employ round-trip trading,³⁹⁴ because Enforcement has not alleged that they did so. The fact that Respondents did not employ one tactic for executing manipulative UTC trades does not imply that they did not employ a different tactic.

ii. *City Power* Order

Next, Respondents claim that “the trading conduct at issue in *City Power* ... [is] materially different from Coaltrain’s tariff-compliant UTC conduct” because “Coaltrain entered trades with the potential for profitable price spreads” and “none of the inflammatory communications cited in *City Power* are present here.”³⁹⁵ This is neither correct nor persuasive.

(a) SouthImp-Exp

Respondents contend that the record shows that “the price spreads between [SouthImp and SouthExp] were volatile from October 2009 through April 2010, and that

³⁹⁰ Lesser Report at PP 172-173.

³⁹¹ Respondents’ 1b.19 Resp. at 9-14; Coaltrain’s Supp. Resp. to Enforcement Preliminary Findings Letter at 1-13 (Sept. 11, 2015) (Supp. PF Resp.).

³⁹² Respondents’ 1b.19 Resp. at 9.

³⁹³ *Chen*, FERC ¶ 61,179 at PP 1, 3.

³⁹⁴ Respondents’ 1b.19 Resp. at 10.

³⁹⁵ Respondents’ 1b.19 Resp. at 11.

there was significant price volatility between these nodes from January 1 to June 17, 2010—immediately prior to Coaltrain’s trades.”³⁹⁶ They further claim that “unlike in *City Power*, Coaltrain associated real risk with these transactions based on potential constraints and market fundamentals,” and that “Coaltrain had no knowledge that the prices were supposed to be equivalent.”³⁹⁷ What distinguishes this matter from *City Power*, Respondents state, is that in *City Power* “the Commission found that contemporaneous communications indicated that those traders knew, or believed they knew, that no price spread was possible.”³⁹⁸

But this matter cannot be distinguished from *City Power*. Whether Respondents knew or did not know about the fact that SouthImp and SouthExp were the same, they certainly knew—from their own data—that it was not a source of profitable arbitrage based on price differentials alone. Their conduct supports this: not only did they make large-volume trades on that path, but they actually made it more difficult to achieve profitable price-based arbitrage because they voluntarily increased their transaction costs by using paid transmission when they knew it was not necessary to do so. And despite seeing zero price spreads, hour after hour, day after day, not only did they keep doing the trade (until the IMM asked them to stop) but they increased their volume. This is in line with the Commission’s analysis in *City Power*.³⁹⁹

Furthermore, Hughes discovered the path shortly after he “create[d an] application to find deals for loss credits,”⁴⁰⁰ and Respondents themselves called it an OCL Strategy trade. As Wells later testified, the OCL Strategy trades were not congested-based, and it involved the “opposite” of a “normal analysis.”⁴⁰¹ Thus, the evidence shows that Respondents discovered and executed the SouthImp-Exp trades not to profit from arbitraging price differentials, but to create a volume-based claim on an outsize share of MLSA payments.

(b) NCMPAImp-Exp

Respondents also state that there are “sharp distinctions” between Coaltrain’s NCMPAImp-Exp trades, and those addressed in *City Power*.⁴⁰² They contend that the evidence does not “show[] that collecting MLSA was the Coaltrain traders’ sole purpose in placing these trades,” and that the trades were “part of Coaltrain’s strategy to engage in

³⁹⁶ *Id.* (citing PF Resp. at 28-30; Lesser Report at PP 144-165).

³⁹⁷ Respondents’ 1b.19 Resp. at 12.

³⁹⁸ *Id.*

³⁹⁹ *City Power*, 152 FERC ¶ 61,012 at P 132.

⁴⁰⁰ Bates No. COALTRAIN012638, row 1951; *see also* Bates No. COALTRAIN012639, row 27.

⁴⁰¹ Wells Test. Tr. 100:14-101:5.

⁴⁰² Respondents’ 1b.19 Resp. at 13.

lower-risk, lower-reward trades.”⁴⁰³ They further state that they did not “attempt[] to conceal their behavior” and that they “had no notice that NCMPAImp-NCMPAExp did not exhibit a level of price risk sufficient to satisfy Staff’s undefined, *post hoc* expectations.”⁴⁰⁴ Finally, they state that they gave “consideration of MLSA, among other factors, in deciding to execute some of its trades” but, they argue, doing so “was completely rational.”⁴⁰⁵

Respondents are incorrect. First, even if their assertion were true, manipulation is not limited to instances when a party’s “sole” purpose was to manipulate. *City Power* held that it was manipulative to make “UTC trades between nodes with small price spreads primarily, if not solely, with the intent to garner MLSA payments.”⁴⁰⁶ As the Commission stated in *Barclays*, “[t]he Anti-Manipulation Rule requires manipulative intent; it does not require exclusively manipulative intent.”⁴⁰⁷ The evidence here is that Respondents’ primary, if not sole, consideration in executing the OCL Strategy trades was to collect MLSA payments; were that not the case, they would not have made it even harder to make profits by voluntarily increasing their transaction costs when it was not necessary to do so.

Second, the Commission has already rejected the argument that it was acceptable to make UTC trades in order to collect MLSA payments. As the Commission explained in *City Power*, the *City Power* Respondents engaged in a fraudulent course of business because their UTC trades were designed “not for hedging or arbitraging price spreads but instead to receive large shares of MLSA payments that otherwise would have been allocated to other market participants.”⁴⁰⁸

Finally, the evidence demonstrates that Respondents knew that the NCMPAImp-Exp trades were not a source of profitable arbitrage from price differentials, that they were selected because of their low cost and low anticipated price volatility, and that they were placed in order to make a volumetric claim on MLSA payments, not to arbitrage DA-RT prices. As Wells explained in a contemporaneous document, absent “0 pricing” a good OCL trade was one that “goes up and down but it averages out never losing a lot or making a lot.”⁴⁰⁹ The tiny price spreads they realized did not make NCMPAImp-Exp profitable without MLSA, and they made it even harder to make any profits on that trade when they voluntarily increased their transaction costs for no reason other than to make the trades eligible for MLSA payments. Despite not making money on the path, they

⁴⁰³ *Id.*

⁴⁰⁴ Respondents’ 1b.19 Resp. at 13.

⁴⁰⁵ *Id.* at 14.

⁴⁰⁶ *City Power*, 152 FERC ¶ 61,012 at P 6.

⁴⁰⁷ *Barclays Bank PLC*, 144 FERC ¶ 61,041, at PP 69-70 (2013).

⁴⁰⁸ *City Power*, 152 FERC ¶ 61,012 at P 92; *see also Chen*, FERC ¶ 61,179 at PP 78-80.

⁴⁰⁹ Wells Test. Ex. 87.

nevertheless placed large volumes of trades on it, and continued to do so day after day. Furthermore, the Commission rejected precisely this argument in *City Power*.⁴¹⁰

c. Argument 3: Lack of Fair Notice

Respondents also contend that it would violate due process to proceed with a manipulation case against them. They state that the MLSA trading scheme “was squarely before the Commission in the *Black Oak* proceeding”⁴¹¹ They claim that the Commission “specifically recognized that [trading to collect MLSA] would change the overall economics of conducting the transactions eligible for MLSA” and that Respondents were not on notice that they could be “prosecute[d] ... for doing precisely what rational market participants were expected to do.”⁴¹² And, they claim, the Commission “in other proceedings [has] taken the position that the net cost of transacting must be considered in determining the economics of a transaction.”⁴¹³

The Commission rejected this argument in *City Power*, and explained that “we find that Respondents were on notice that placing uneconomic trades solely for the purpose of collecting MLSA payments violated the FPA and the Anti-Manipulation Rule.”⁴¹⁴ As the Commission held in that order, defining fraud to include “any action, transaction, or conspiracy for the purpose of impairing, obstructing or defeating a well-functioning market”⁴¹⁵ was neither ambiguous, vague, or overbroad.⁴¹⁶ The Commission also rejected the argument that the “*Black Oak* orders can be read to authorize Respondents’ fraudulent Loss Trades and that their trades somehow fall within the safe harbor provisions provided by Order No. 670” because those trades 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.”⁴¹⁷

Further, as in *City Power*, the evidence demonstrates that Respondents here knew they were engaged in fraudulent and manipulative conduct.⁴¹⁸ First, Respondents plainly knew that the OCL Strategy was fundamentally different from UTC trading, which was a spread product. Not only were they aware of the difference, they discussed the differences internally and the traders tracked whether their UTC trades were “Spread” or

⁴¹⁰ *City Power*, 152 FERC ¶ 61,012 at PP 143-144.

⁴¹¹ Respondents’ 1b.19 Resp. at 19; 1b.19 Resp. of Peter Jones, Robert Jones, and Jack Wells at 2-4 (Oct. 19, 2015).

⁴¹² Respondent’s 1b.19 Resp. at 20-21.

⁴¹³ *Id.* at 21.

⁴¹⁴ *City Power*, 152 FERC ¶ 61,012 at P 163.

⁴¹⁵ Order No. 670, FERC Stats. & Regs. ¶ 31,202 at P 50.

⁴¹⁶ *City Power*, 152 FERC ¶ 61,012 at P 166.

⁴¹⁷ *City Power*, 152 FERC ¶ 61,012 at P 168.

⁴¹⁸ *See City Power*, 152 FERC ¶ 61,012 at P 170.

“OCL.” Second, in the June 2010 filing, they (along with their co-authors) told the Commission that virtual traders “conduct virtual transactions when they think they can profit from the difference between the day-ahead LMP and the real-time locational marginal price they expect. The fact that a trader will share in the distribution of transmission line loss surpluses based on the volume of transactions it conducts in the day ahead market should not significantly alter this calculus”⁴¹⁹ That statement was knowingly false as to Respondents because at that same time Respondents were devising a scheme to make a profit from the “distributions of transmission line loss surpluses based on the volume of transactions” and *not* “from the difference between the day-ahead LMP and the real-time LMP they expect.”⁴²⁰ Had they thought the OCL Strategy was legitimate, they would have been fully truthful with the Commission in that submission. Finally, their knowledge of their wrongdoing is shown by their misleading assurances to the IMM that they would not engage in any further “inappropriate” trades while at the same time continuing to execute hundreds of thousands of MWh of OCL trades that they recognized as serving the same manipulative purpose as SouthImp-Exp and NCMPImp-Exp, and by the fact that in their conversations with the IMM before the referral they falsely tried to justify their trades as seeking price differentials.

d. Argument 4: Some Respondents Did Not Execute the Trades

Some of the Named Individuals contend that they should not be liable because two of them (Hughes and Miller) did not execute any of the OCL Strategy trades, and because the other (Sheehan) only executed OCL Strategy trades before the company started labeling the trades as such.⁴²¹ But this is an incorrect statement of the law. As the Commission held in *Silkman*, 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.⁴²² Every Named Individual played a substantial role in devising, directing, or executing the scheme, and it is just and appropriate to hold them responsible for their role. Here, Sheehan not only did some of the trades in question, but he also participated in the discussions to devise the scheme, and as a supervisor he played a critical role in overseeing and directing it. Miller was a trader who played an important role in devising the scheme, and he encouraged and directed others to make the trades.⁴²³ Hughes was an analyst who played a key role in devising the scheme by analyzing the loss credits, by “creat[ing an] application to find deals for loss credits,” for identifying

⁴¹⁹ June 2010 Filing at 20 n.23.

⁴²⁰ *Id.*

⁴²¹ 1b.19 Response of Shawn Sheehan, Jeff Miller, and Adam Hughes at 1-2 (Oct. 19, 2015).

⁴²² *Richard Silkman*, 144 FERC ¶ 61,164, at PP 43-45, 71-74 (2013).

⁴²³ Bates No. COALTRAIN0011542.

SouthImp-Exp and NCMPImp-Exp to Sheehan, and for making it possible for the traders to track how the MLSA payments affected their profits on UTCs.

e. Argument 5: There Was No Market Harm

Respondents further contend that their OCL trades did not “impair[], obstruct[], or otherwise defeat[] a well-functioning market” because there is no evidence that the trades affected dispatch, prices, or available transmission capacity.⁴²⁴

In both *Chen* and *City Power*, the Commission found that strategies essentially identical to the OCL Strategy were manipulative because they impaired, obstructed, or defeated a well-functioning market.⁴²⁵ The Commission also specifically rejected the argument that the loss trades did not prevent others from obtaining transmission.⁴²⁶ That reasoning applies with equal force here.⁴²⁷

C. Coaltrain Provided False and Misleading Statements and Omitted Material Information to Enforcement

Section 35.41(b) of the Commission’s regulations, 18 C.F.R. § 35.41(b) (2015), titled “Market Behavior Rules” establishes a duty of candor, and states in relevant part:

(b) Communications. A Seller⁴²⁸ 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 system operators, or jurisdictional transmission providers, unless Seller exercises due diligence to prevent such occurrences.

Entities that violate this provision may be assessed civil penalties or have other sanctions levied against them.⁴²⁹ The Commission emphasized in *City Power* that “a

⁴²⁴ See Respondents’ PF Resp. at 45-46.

⁴²⁵ *City Power*, 152 FERC ¶ 61,012 at P 166; *Chen*, FERC ¶ 61,179 at P 118.

⁴²⁶ *City Power*, 152 FERC ¶ 61,012 at P 203 n.493.

⁴²⁷ See *infra* at Part IV.C.3.b.

⁴²⁸ The term “*Seller* means any person that has authorization to or seeks authorization to engage in sales for resale of electric energy, capacity or ancillary services at market-based rates under section 205 of the Federal Power Act.” 18 C.F.R. § 35.36(a)(1) (2015).

⁴²⁹ See *City Power*, 152 FERC ¶ 61,012 at PP 241-274; *In re Edison Mission*, 123 FERC ¶ 61,170, at PP 2, 10 (2008) (imposing by settlement a \$7,000,000 civil penalty on Edison Mission Energy for impeding an investigation of conduct ultimately determined to be non-manipulative); *Moussa I. Kourouma d/b/a Quntum Energy LLC*, 134 FERC ¶ 61,105, at 61,480 & n.45 (2011) (the Commission may impose personal liability and disregard the corporate form to achieve the statutory mandate and assure that the statutory purposes are not frustrated); *J.P. Morgan Ventures Energy Corp.*, 141 FERC ¶ 61,131 (2012) (suspending market-based rate authority).

violation of section 35.41(b) need not be the result of an intentional act. 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.”⁴³⁰ The Commission in that order also stated that “market participants [are] on notice of their obligation to be candid, and that it takes false or misleading statements seriously, particularly when they occur in the context of a staff investigation into potentially improper conduct.”⁴³¹ The Commission further explained that it is a serious violation to make false and misleading statements to Enforcement staff because it “hamper[s] the Commission’s ability to . . . discharge its statutory obligation to ensure that rates are just and reasonable [and] undermine[s] the transparency of the market.”⁴³² Accordingly, section 35.41(b) creates a “duty of candor”—which the Commission described as “a duty to be forthright and fully truthful.”⁴³³ The Commission has also rejected the “literal truth” defense (a criminal law doctrine) as “both inconsistent with the language and requirements of section 35.41(b) and would defeat the purpose of the duty of candor as a good faith standard beyond the bare minimum required to avoid criminal perjury liability.”⁴³⁴

1. Coaltrain is a “Seller”

Coaltrain was a “Seller” under Section 35.41(b) because it had authorization to engage in sales for resale of electric energy, capacity and ancillary services at market-based rates.⁴³⁵

2. Coaltrain Made False and Misleading Statements and Material Omissions in Communications with Commission Staff

During the course of this investigation, Coaltrain repeatedly provided false and misleading statements to, and omitted material information from, Enforcement, and this violation of Coaltrain’s duty of candor could have been prevented had Respondents exercised due diligence (by simply searching materials they knew they had in their possession, and then telling the truth).

As in *City Power*, Respondents’ omissions and inaccurate statements were clearly material, especially as they “related to the core subjects at issue in OE Staff’s investigation: [Respondents’] UTC trading activity and evidence of its partners’

⁴³⁰ *City Power*, 152 FERC ¶ 61,012 at P 217.

⁴³¹ *City Power*, 152 FERC ¶ 61,012 at P 218.

⁴³² *Moussa I. Kourouma d/b/a Quntum*, 135 FERC ¶ 61,245 at P 44; *see also City Power*, 152 FERC ¶ 61,012 at P 218.

⁴³³ *Id.*

⁴³⁴ *Id.*

⁴³⁵ Coaltrain had market-based rate authority until April 15, 2011. *See* Docket No. ER11-3358-000.

contemporaneous intent behind those trades.”⁴³⁶ And as in *Edison Mission* and *City Power*, 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.’”⁴³⁷ The Commission’s directive in *City Power* has as much force here: “We emphasize that subjects of Commission investigations do not have the discretion to decide what evidence (or how much of it) is relevant. Instead they are obligated to fully comply with OE Staff’s data requests or subpoenas regardless of whether they consider them duplicative or unnecessary.”⁴³⁸

a. Documents Preserved in Spector 360

First and foremost, Respondents omitted material information when they failed to review and produce an enormous number of highly relevant and responsive documents stored by Spector 360, which contained copies of most of their communications and documents, even the ones they had otherwise deleted or had never saved in the first place. They then covered this up by falsely and misleadingly telling Enforcement that they had complied with Enforcement’s request. The information contained in the Spector 360 database included images as well as text files of the documents and other materials that Enforcement had requested.

In the Second Data Request (November 15, 2010), Enforcement asked Respondents to produce “copies of all written communications...relating to UTCs” and “copies of all notes, note books, journals, and any other documents relating to trading UTCs.”⁴³⁹ The Spector 360 data contained thousands of emails, IMs, spreadsheets and other documents and communications relating to UTC transactions during the summer of 2010. In fact, Peter Jones and Shawn Sheehan had used that very same set of data to investigate and terminate Kourouma in 2009 and a different trader in early June 2010. Yet, in its December 2010, February 2011 responses to the Second Data Request—

⁴³⁶ *City Power*, 152 FERC ¶ 61,012 at P 219.

⁴³⁷ *Id.* (quoting in part *Edison Mission*, 123 FERC ¶ 61,170 at P 9).

⁴³⁸ *City Power*, 152 FERC ¶ 61,012 at P 219.

⁴³⁹ Enforcement Second Data Request to Coaltrain, Quest. 12 (Nov. 5, 2010). On November 10, 2010, Enforcement had a phone conversation with Coaltrain’s counsel regarding questions and concerns about Enforcement’s second set of data requests. On November 12, 2010, Coaltrain’s counsel followed up the phone conversation with a letter objecting to a number of the data requests, but containing no substantive response to any of the requests. The November 12, 2010 letter contained an objection to Data Request No. 12 in Enforcement’s second set of data requests, among other objections. Coaltrain’s objection was to the use of the phrases “related to” and “relating to” as being vague. Enforcement sent a letter to Coaltrain on November 18, 2010 addressing the objection and explaining the meaning and intent of the phrases “related to” and “relating to” contained in the data requests and directing Coaltrain to “[P]roduce all responsive documents.”

completed just days before the company renewed its license for Spector 360—Coaltrain neither produced the Spector data nor did it undertake any efforts to make Enforcement aware of the recorded information. But Peter Jones falsely and misleadingly attested in February 2011 that their response was “true, complete, and accurate.”⁴⁴⁰ Yet the evidence shows that they possessed and knew about the missing materials—in fact, there was a substantial amount of discussion about Spector 360 in the months leading up to their false attestation.⁴⁴¹

In its Third Data Request (April 18, 2012), Enforcement asked the company to “produce all documents relating to the following subjects from July 1, 2009 until October 1, 2010: (a) Up to congestion transactions; (b) Transmission loss credits; [and] (c) Marginal loss surplus allocation; . . .” Enforcement also asked them to “[p]roduce all instant messages, on any account, sent or received by Peter Jones or Shawn Sheehan from July 1, 2009 until October 1, 2010 relating to Up To Congestion research or transactions, PJM nodes, or any of the entities listed in Request No. 4, *supra*, as well as all documents reflecting, discussing, pertaining to, or memorializing any instant message communications.”⁴⁴² Once again, Coaltrain neither produced responsive documents from Spector 360 nor informed Enforcement about the existence of the voluminous keystroke-logger data. Instead, Coaltrain stated that “[t]o the best of our knowledge, we have produced all applicable documents in response to the previous data requests” and that “we do not have any documents pertaining to this request.” And in response to the request for IMs, Coaltrain stated “[t]o the best of our knowledge, no instant messaging documents exist.”⁴⁴³ Once again, Peter Jones attested that the response was “true, complete, and accurate.”⁴⁴⁴

In the Fourth Data Request (June 4, 2012), Enforcement asked Coaltrain to “[s]tate whether Peter Jones or Shawn Sheehan sent or received any instant messages during the Relevant Period. Provide a list of every person to whom Peter Jones or Shawn Sheehan sent an instant message during the Relevant Period, and a list of every person who sent an instant message to Peter Jones or Shawn Sheehan during the Relevant Period.” Enforcement also requested that Coaltrain “[s]tate whether Peter Jones or Shawn Sheehan set their instant message applications to record instant messages at any time from January 1, 2009 to the present. If so, produce a list of dates when the instant messages were recorded, a list of dates when they were deleted, and the person(s) with whom Jones or

⁴⁴⁰ Coaltrain Letter and Affidavit to Coaltrain Resp. to Amended Second Data Request (Feb. 3, 2011).

⁴⁴¹ *See infra* at Part IV.C.3.b.

⁴⁴² Enforcement Third Data Request to Coaltrain, Quests. 3, 5 (Apr. 18, 2012).

⁴⁴³ Coaltrain Resp. to Enforcement Third Data Request, Quests. 3, 5 (May 25, 2012).

⁴⁴⁴ Cover Letter and Affidavit to Coaltrain Resp. to Enforcement Third Data Request (May 25, 2012).

Sheehan communicated.”⁴⁴⁵ Coaltrain responded (on July 3, 2012) that “Shawn Sheehan and Peter Jones did not send and receive an instant message during the Relevant Period.” Coaltrain further responded that “[n]o record exists of instant messages sent or received” and that “no instant message application was set to record instant messages at any time.”⁴⁴⁶ Once again, Peter Jones attested that their response was “true, complete, and accurate.” This was also false and misleading because, as Respondents later conceded, Peter Jones had preserved responsive instant messages on his computer.

Respondents did not inform Enforcement of the existence of the Spector 360 materials until Enforcement specifically asked about computer security monitoring software in the Fourth Data Request (Request No. 20). However, they did not produce materials from the Spector 360 database at that time. Thereupon, in the Fifth Data Request (July 3, 2012), Enforcement required the company to produce Spector 360 data pertaining to Adam Hughes, Robert Jones, Jeff Miller, Jack Wells, and another trader.⁴⁴⁷ Coaltrain agreed to the return date of July 20, 2012, but when that day arrived, it provided the following response to the request for production:

Answer: Subject to and without waiving the foregoing objections, neither Coaltrain Energy nor Crane has a license to access the Spector 360 security monitoring software to retrieve the requested data for any of the named employees. Additionally, neither Coaltrain Energy, Crane, Shawn Sheehan nor Pete Jones has a copy of this software. Any right to access the Spector 360 software regarding the companies expired when Coaltrain Energy and Crane ceased operations on or about March 28, 2011. In the event FERC obtains a license from SpectorSoft in order to access this data, we would be willing to provide any consents or other cooperation necessary to access the requested information.

The company also stated that while the “data has been recorded and kept from inception,” nevertheless the “[r]ecorded data was not searched in response to Staff’s prior Data Requests,” even though it had plainly been responsive to several of Enforcement’s data requests from 2010.⁴⁴⁸ Peter Jones attested that the response was “true, complete, and accurate.”⁴⁴⁹ However, this too was false and misleading, for Respondents were in fact able to access and review the Spector 360 data before they responded to the Fifth Data Request, as the following email sent to Peter Jones *before* they responded to the Fifth Data Request demonstrates:⁴⁵⁰

⁴⁴⁵ Enforcement Fourth Data Request to Coaltrain, Quests. 1, 2 (June 4, 2012).

⁴⁴⁶ Coaltrain Resp. to Enforcement Fourth Data Request, Quests. 1, 2 (Jul. 3, 2012).

⁴⁴⁷ Enforcement Fifth Data Request to Coaltrain, Question 1 (Jul. 3, 2012).

⁴⁴⁸ Coaltrain Resp. to Enforcement Fourth Data Request, Question 20 (Jul. 3, 2012) (highlighting added).

⁴⁴⁹ Letter and Affidavit to Coaltrain Resp. to Enforcement Fifth Data Request (Jul. 20, 2012).

⁴⁵⁰ Bates No. COALTRAIN011649. This email was not produced to Enforcement until August 18, 2014.

From: Gary Wrinn <gwrinn@montereyllc.com>
Sent: Thursday, July 5, 2012 1:22 PM
To: Pete Jones <PJones@MontereyLLC.com>
Subject: Spector Data

Hi,

I have the screens and about half the exported data stored on \\medusa.g\$FERC <%5C%5Cmedusa%5Cg\$%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 over....

G

Despite having not produced or identified the existence of their Spector 360 materials since the beginning of the investigation, and despite their undoubted ability to access and review the Spector 360 materials, Respondents did not agree to produce materials from that set of data until Enforcement secured for them a copy of the software license.⁴⁵¹

Respondents finally produced the data in August 2012 (with further productions over the next several months).⁴⁵² This proved to be a large amount of materials, averaging about 10 gigabytes per employee just covering the period May-September 2010. (By comparison, Microsoft Word uses on average over 64,000 pages per gigabyte, and Outlook uses about 100,000 pages of emails per gigabyte.)⁴⁵³

b. Other Omitted Documents

Respondents also failed to produce other documents responsive to Enforcement's requests. In particular, Respondents possessed, but failed to produce, Hughes's IMs, as well as Peter Jones's IMs (which were not preserved by Spector 360).⁴⁵⁴ These documents were clearly in their possession after they received Enforcement's Document Preservation Directive. Hughes also conceded that he did not turn over his IMs.⁴⁵⁵

Hughes's and Jones's missing IMs were responsive to Enforcement's numerous data requests, including Question 8 from the Second Data Request (November 2010), Questions 3 and 5 of the Third Data Request (April 2012), and Questions 1 and 2 of the Fourth Data Request (June 2012). In addition, one of the missing IMs was a

⁴⁵¹ Coaltrain Supp. Resp. to Enforcement Fifth Data Request (Aug. 20, 2012).

⁴⁵² *Id.*

⁴⁵³ See http://www.setecinvestigations.com/resources/techhints/Pages_per_Gigabyte.pdf.

⁴⁵⁴ In its response to Enforcement's Sept. 9, 2013 Subpoena, Respondents stated that the Peter Jones IMs that they belatedly produced to Enforcement in late 2012 were "found on the machine 'Pete-Home.'" This machine was located at the home of Peter Jones, and the disclosed data recorded by AIM." Coaltrain Resp. to Enforcement Sept. 9, 2013 Subpoena, Narrative Response No. 4 (Sept. 27, 2013).

⁴⁵⁵ Hughes Test. Tr. 251:24-254:13.

communication between Peter Jones and a third party that was directly responsive to Question 1 of the Third Data Request.⁴⁵⁶ Coaltrain had also falsely attested that Peter Jones and Sheehan had not sent or received any instant messages in the Fourth Data Request.⁴⁵⁷

3. Coaltrain’s Response to the Section 35.41(b) Violations is Not Persuasive

In their 1b.19 response, Respondents claim that, despite “[s]taff’s concerns about the discovery process,” nevertheless “Coaltrain acted diligently and its responses to Staff’s various data requests were factual and accurate when made.”⁴⁵⁸ Respondents are not correct.

a. Argument 1: Coaltrain Exercised Due Diligence Because It Relied on Prior Counsel

Respondents first contend that Coaltrain “took several steps that demonstrate reasonable diligence” and that it “relied upon outside counsel to facilitate the collection and production of the responsive information.”⁴⁵⁹ They blame the “hurdles on the data collection process” on Enforcement’s “acrimonious relationship with prior counsel,” and claim that they searched their files “[w]hen it became clear that responsive information was possibly stored locally on computers used by Coaltrain employees.”⁴⁶⁰ In their supplemental 1b.19 response of October 30, 2015, they clarified that they were not raising an advice-of-counsel defense, but instead they were arguing that the fact that they retained outside counsel shows due diligence on their part.⁴⁶¹ They also clarified that, in their view, section 35.41(b) does not apply to discovery disputes, and that an entity cannot be held liable for the statements of its outside counsel.⁴⁶²

This is not persuasive. First, it is clear that Respondents did not act with diligence in responding to Enforcement’s data requests. In fact, Peter Jones himself had responsive IMs on his computer that he did not produce, as did the company, while due diligence would have required him (and the company) to search their own computers for responsive materials. Second, Respondents effectively concede their violation of section

⁴⁵⁶ Compare Coaltrain Response to Enforcement Third Data Request, Question 1 (May 25, 2012) (stating “to the best of our knowledge, we had no contact with the individuals listed in question 1 during the relevant period, except for one meeting with PJM management. . . on May 12, 2010”) with Peter Jones Test. Vol. II Tr. 112:12-14 (stating that he had “forgotten” about his additional communication with K. Stephen Tsingas).

⁴⁵⁷ Coaltrain Resp. to Enforcement Fourth Data Request, Quests. 1, 2 (Jul. 3, 2012).

⁴⁵⁸ Respondents’ 1b.19 Resp. at 15.

⁴⁵⁹ *Id.*

⁴⁶⁰ Respondents’ 1b.19 Resp. at 16.

⁴⁶¹ Coaltrain Supp. 1b.19 Resp. at 1-2 (Oct. 30, 2015).

⁴⁶² *Id.* at 2.

35.41(b) by attempting to place the blame on their prior counsel. Yet it is not a defense to do so, for not only does counsel act as an agent in these circumstances, but counsel cannot be expected to have a better understanding of how a company stores its files than the company's owners and IT employees. Third, the mere fact of hiring outside counsel does not shield an entity from violating section 35.41(b)—due diligence requires more than just hiring an attorney, as the Commission held in *J.P. Morgan Ventures Energy Corp.*⁴⁶³ Moreover, most of the statements and omissions at issue here stem directly from Coaltrain itself—for instance, Peter Jones himself signed the affidavits containing false attestations, and it was Coaltrain who omitted the material information in its responses to Enforcement. Finally, the Commission has never stated that section 35.41(b) is not intended to apply to discovery disputes in the course of an Enforcement investigation, and that is not a reasonable reading of the rule.

b. Argument 2: Coaltrain Did Not Intend to Conceal the Spector 360 Data, and Staff Was Not Harmed

Respondents also state that they “did not conceal either the existence of Spector 360 or the data Spector 360 collected,” and state that they only “infrequently” accessed the software, and that the program was not installed on Peter Jones’s or Sheehan’s computers.⁴⁶⁴ They further state that the employee primarily responsible for managing Spector 360 had been terminated before they responded to the Second Data Request.⁴⁶⁵ They thus state that their failure to search and produce documents stored by Spector 360 for more than two years amounted to “initial inattention to the Spector 360 data as a potential source for responsive information.” And, according to them, “Staff suffered no harm or prejudice” because “Staff received all of the responsive materials and no evidence was destroyed.”⁴⁶⁶ Accordingly, “Coaltrain was not protecting or ‘concealing’ evidence it believed might demonstrate manipulative or even questionable conduct.”⁴⁶⁷

Respondents are incorrect. Sheehan and Peter Jones plainly did not have Spector 360 installed on their machines because they did not want to have their own computer activities monitored, not because they were unfamiliar with the program. And indeed, throughout the fall and winter of 2010, the evidence shows that Respondents—including Sheehan—had many occasions to discuss Spector 360. And Respondents are incorrect in stating that Coaltrain compiled and produced the data when asked—in fact, as shown above, Respondents made false and misleading statements about their ability to access

⁴⁶³ *J.P. Morgan Ventures Energy Corp.*, 141 FERC ¶ 61,131, at P 42 (2012) (“Contrary to JP Morgan’s assertions, its retainer of qualified attorneys does not constitute sufficient due diligence to exonerate JP Morgan’s violations.”).

⁴⁶⁴ Respondents’ 1b.19 Resp. at 16-17.

⁴⁶⁵ *Id.* at 17.

⁴⁶⁶ *Id.*

⁴⁶⁷ *Id.*

the data, and refused to produce any information from the dataset unless and until Enforcement provided them with a new license. Finally, it is erroneous to state that the investigation was not harmed by Respondents' concealment of Spector 360 and other evidence for more than two years. In fact, the missing materials were both relevant and critical to the investigation, and, as in *Edison Mission* and *City Power*, 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.'"⁴⁶⁸

Coaltrain now claims that this was an inadvertent oversight, but it is simply not credible that the principals and relevant employees at Coaltrain/Energy Endeavors "forgot" about the software after Enforcement served its document production requests.⁴⁶⁹ Jones and Sheehan purchased the software in or about 2008, and installed it on nearly every computer—even on employees' home computers. They paid thousands of dollars in annual licenses to receive updates and technical support. Every employee was required to sign a waiver acknowledging that the company was monitoring their computer activity. The small IT department (including Hughes) was given the task of administering this complex program that periodically caused computers to crash, and to do so they were in frequent contact with SpectorSoft's technical support team. For instance, on July 6, 2010, Adam Hughes sent an IM to Peter Jones to inform him that "Bob's computer crash this morning was caused by Spector."⁴⁷⁰

In fact, Hughes and others contacted SpectorSoft's technical support team on approximately 14 separate occasions between August 2010 and January 2011—at the very time when they were responding to Enforcement's first two data requests. They even contacted SpectorSoft about upgrading Spector 360 to a new version on August 19, 2010, which was the very same day when they received Enforcement's First Data Request, and they renewed Coaltrain's licensing contract with SpectorSoft just days after the company completed its response to the Second Data Request.⁴⁷¹ Notably, Hughes was tasked by Peter Jones and Sheehan to search for and preserve documents responsive to Enforcement's requests. Hughes had been aware of Spector 360 since at least

⁴⁶⁸ *City Power*, 152 FERC ¶ 61,012 at P 219 (quoting in part *Edison Mission*, 123 FERC ¶ 61,170 at P 9).

⁴⁶⁹ The evidence provided by Coaltrain indicates that Jones and Sheehan had created a variety of related, overlapping companies, and that in practice the related companies shared data, documents, and employees. Although those who performed work on behalf of Coaltrain were technically employed by Energy Endeavors, which also held the Spector 360 license, or another related company, Coaltrain, Jones, and Sheehan were at all relevant times also in possession of the Spector 360 data.

⁴⁷⁰ Bates No. COALTRAIN007150.

⁴⁷¹ SpectorSoft0002-3 10/24/12.

November 2008, when he exchanged IMs with another IT employee to obtain a password and ID for the software and to discuss technical issues about Spector 360.⁴⁷² The program apparently crashed Hughes’s computers, and Sheehan was brought into the discussion.⁴⁷³ Hughes also sent an email to Sheehan and Peter Jones on November 19, 2010—shortly after Respondents received Enforcement’s Second Data Request—“to let you know that I logged into Spector this morning to view the activity on the computer in the team room.”⁴⁷⁴ In sum, Respondents were well aware of the existence of Spector 360, and had access to it after the IT employee who had managed the software was terminated.

D. The Scheme Harmed the Market

As in *Chen* and *City Power*, Respondents’ scheme caused market harm. First, by capturing a larger share of the MLSA through their manipulative trading, Respondents also deprived other market participants of MLSA payments they would have received absent Respondents’ manipulative trades.⁴⁷⁵ Also as in *Chen* and *City Power*, PJM provided Enforcement with a preliminary calculation of the entities that lost money as a result of Respondents’ scheme. PJM’s preliminary analysis indicates that more than 300 market participants were adversely affected by Respondents’ scheme to capture roughly \$8 million in MLSA. According to PJM’s calculation, the top ten entities harmed by Respondents’ conduct were:⁴⁷⁶

Amount	Company
\$1,071,040.04	Appalachian Power Company (AEP Generation)
\$861,751.06	Dominion Virginia Power (LSE)
\$521,582.14	Commonwealth Edison Company (Blended CPP)

⁴⁷² Bates No. COALTRAIN008268.

⁴⁷³ Bates No. COALTRAIN008389.

⁴⁷⁴ Bates No. COALTRAIN0011640.

⁴⁷⁵ See *City Power*, 152 FERC ¶ 61,012 at P 161 (holding that “we find that identifiable market participants were harmed by Respondents’ conduct because ‘they did not receive the MLSA payments they would have received absent Respondents’ unlawful . . . UTC trades.’” (citing *Chen*, 151 FERC ¶ 61,179 at P 98)).

⁴⁷⁶ This table is derived from “MLSA Account Level Summary Related To COALTR Removal Simulation.xlsx,” a document produced to Enforcement by PJM on Jan. 28, 2015. Enforcement produced this document to Respondents on February 4, 2015.

Amount	Company
\$425,435.31	PECO Energy Company
\$222,712.82	PSEG Energy Resources and Trade LLC
\$219,663.47	Constellation NewEnergy, Inc.
\$178,604.31	Allegheny Energy Supply Company, LLC (AP PA Base)
\$140,774.01	Dayton Power & Light Company (The)
\$140,622.44	Metropolitan Edison Company
\$125,649.50	Pennsylvania Electric Company

This scheme also adversely affected entities other than large utilities. In fact, by operation of state law or contract, some of the lost MLSA payments would have been redirected directly to consumers. For example, under Virginia law, utilities have to pass through all MLSA payments to consumers.⁴⁷⁷ Thus, every dollar of MLSA payments that Respondents obtained by manipulative means that otherwise would have been allocated to Dominion and other Virginia utilities was a dollar lost to Virginia consumers. Similarly, during the summer of 2010 several federal agencies had contracts with wholesale power providers that required the providers to pass through all MLSA payments directly to the government. For instance, Enforcement’s preliminary analysis of a subset of the Department of Defense’s power contracts indicates that Respondents’ scheme deprived the agency (and, by extension, taxpayers) of more than \$23,000 in MLSA payments that otherwise would have been paid to the federal government under those contracts.⁴⁷⁸

The second type of market harm caused by Respondents stems from the fact that they reserved millions of MWh of Day-Ahead transmission to effectuate the OCL

⁴⁷⁷ Va. Code § 56-249.6 (Recovery of fuel and purchased power costs); *Application of Virginia Electric and Power Company, To revise its fuel factor pursuant to § 56-249.6 of the Code of Virginia*, at 5, Case No. PUE-2015-00022 (filed Feb. 7, 2015).

⁴⁷⁸ Data from spreadsheets produced by the Department of Defense titled Consolidated PJM LMP Accounts kWh Monthly from June 2010-August 2010 (produced Oct. 8, 2014 and Oct. 30, 2015). Enforcement simulated PJM’s analysis to produce the preliminary MLSA figure the agency would have received but for the Respondents’ behavior.

Strategy. Available Transmission Capacity (ATC) is a finite resource—the total amount of ATC on each delivery path is released at the start of the Day-Ahead market, and that amount is then reduced for every OASIS reservation made on that path on a first-come, first-served basis, subject to one or two times late in the morning when some subset of the used transmission might be re-released (again, on a first-come, first-served basis).⁴⁷⁹

Respondents tied up approximately 4.61 million MWh of transmission to reserve transmission for their OCL trades.⁴⁸⁰ In so doing, Respondents deprived other market participants of the opportunity to use the system’s finite Day-Ahead transmission capacity to execute their own physical and financial trades that required reservation of

⁴⁷⁹ The Commission’s authority over transmission services extends to Available Transmission Capacity (ATC), which is the MWh volume of transmission capacity on a given path that is available to be reserved at any given time. *Capacity Benefit Margin in Computing Available Transmission Capacity*, 88 FERC ¶ 61,099, at 61,236 (1999) (the Commission established open-access transmission and the OASIS system “to allow transmission customers to determine the availability of transmission capacity,” and the information posted on OASIS “included both total transmission capability . . . and ATC”). The Commission’s jurisdiction encompasses instances in which transmission capacity reservations affect the grid’s “ability to accommodate additional interstate energy transactions.” *Arizona Pub. Serv. Co. v. Idaho Power Co.*, 91 FERC ¶ 63,004, at 65,071 (2000), *aff’d*, 100 FERC ¶ 61,253 (2002). And because “maintaining adequate resources . . . has a significant and direct effect on jurisdictional rates and services,” the Commission has jurisdiction over resource adequacy. *PJM Interconnection, LLC*, 119 FERC ¶ 61,318, at P 48 (2007).

Before September 2010, UTC trades required traders to reserve non-firm point-to-point transmission, which was a finite resource. PJM OASIS, Regional Transmission and Energy Scheduling Practices, Ver. 14 at 50 (Jul. 15, 2009), *available at* <http://www.pjm.com/~media/committees-groups/committees/mic/20090611/20090611-item-05b-regional-practices1.ashx> (PJM Manual). Non-firm transmission reservations designated as willing to pay congestion received priority over those not so designated, and they competed with each other on a first-come first-served basis for ATC. PJM Manual at 16. To make a reservation for non-firm capacity, there had to be enough ATC on the desired path. *Id.* at 9. Non-firm reservations included both UTCs *and* physical deals. *Id.* at 40. Each morning, PJM re-released day-ahead ATC that was not associated with real-time schedules after 10 A.M. (which represents a subset of all ATC reservations), and PJM usually updated the posted ATC amount 20-25 minutes after the top of the hour. PJM Manual at 9-10. This means that ATC not associated with real-time schedules typically would be re-released around 10:20-10:30 A.M. and then again around 11:20-11:30 A.M., and each time the re-released portion of ATC was subject to first-come, first-served reservations. Thus, during the summer of 2010, UTC traders had to reserve transmission on their desired paths, and in doing so they competed with both physical and virtual market participants for a finite amount of ATC. This means that a virtual trader tied up transmission that other market participants, including generators and load-serving entities, could have used to do their own trades.

⁴⁸⁰ *See supra* text accompanying note 8.

non-firm point to point transmission. It was not a secret that ATC was finite, and during the summer of 2010, market participants frequently found themselves unable to obtain ATC. The IMM, for instance, told Peter Jones on July 26 that they were “worried about ... the pattern of behavior with, ... tying up a lot of transmission.”⁴⁸¹

As Jack Wells wrote in a note to himself from June 2010 about how to do deals, the ability to do UTC trades depended on the availability of transmission:⁴⁸²

After curves are completed in UpTo Market Interface, submit OASIS to obtain the transmission. If transmission is refused, go to Market Interface and click on PJM ATC Viewer. Click on All to get drop down and select Import or Export, whichever is pertinent. This will allow you to see what ATC is available for all your potential flow paths. After curves have been approved by the Muckity Mucks, submit the curves to the Market!!!!!!!

In late July Serge Picard and his firm complained to the IMM when they suddenly found themselves unable to trade UTCs, because there was no available transmission capacity (ATC), which prompted him to undertake an inquiry into its causes.⁴⁸³ The fact that other market participants seeking to do physical trades and financial arbitrage may have been “crowded out”—and were thereby unable to effectuate their own trades—may have had an indirect effect on prices because the Day Ahead market was denied the beneficial impact of those trades.⁴⁸⁴

Respondents were well aware that ATC was finite and could run out—and that their OCL Strategy trades depleted it. For instance, around 8:30 a.m. on the morning of June 19, 2010, Peter Jones (IM name: “ConectivPete”) and Dan Jones (IM name: “jonesy211”) discussed ATC in the context of planning their OCL Strategy trades, as follows:⁴⁸⁵

(8:30:24 AM) **jonesy211**: hey are those ocl plays just a repeat for tomorrow

(8:32:24 AM) **ConectivPete**: yes

(8:32:44 AM) **ConectivPete**: get the wheel through trans now while it's available

⁴⁸¹ Bates No. COALTRAIN000326; *see* Enforcement transcript of recorded call.

⁴⁸² Wells Test. Ex. 13 (highlighting added).

⁴⁸³ Picard Test. Tr. 84:20 – 88:23 (explaining that “we were not able to trade anymore”).

⁴⁸⁴ As the Commission recognized in *City Power*, 152 FERC ¶ 61,012 at P 203 n.493, “a finite amount of transmission capacity exists on the PJM OASIS system, and market participants compete to reserve such capacity. Even though later released, Respondents’ reservations prevented others from obtaining transmission for at least some period of time.”

⁴⁸⁵ Bates No. COALTRAIN006998.

(8:33:06 AM) jonesy211: roger

Peter Jones’s premonition that the “wheel through trans” might not be available for very long proved correct. About two hours later, Robert Jones found that ATC had reached zero on several import (*i.e.* MLSA-eligible) transmission paths:⁴⁸⁶

Hour	AMIL-PJM	CIN-PJM	FE-PJM	NIPS-PJM
1	0	0	157	0
2	0	0	154	0
3	0	0	156	0
4	0	0	157	0
5	0	0	122	0
6	0	0	63	0
7	0	0	54	0
8	0	0	61	0
9	0	0	55	0
10	0	0	24	0
11	0	0	533	344
12	0	0	494	286
13	0	0	494	286
14	0	0	498	291
15	0	0	461	236
16	0	0	461	236
17	0	0	457	230
18	0	0	457	230
19	0	0	551	370
20	0	0	571	370
21	0	0	540	354
22	0	0	544	359
23	0	0	37	0
24	0	0	143	0

⁴⁸⁶ Excerpt of R. Jones Test. Ex. CT-RJ 43 (June 19, 2010 10:14 am).

Hour	AMIL-PJM	CIN-PJM	FE-PJM	NIPS-PJM
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
7	0	0	0	0
8	0	0	0	0
9	0	0	0	0
10	0	0	0	0
11	0	0	0	0
12	0	0	0	0
13	0	0	0	0
14	0	0	0	0
15	0	0	0	0
16	0	0	0	0
17	0	0	0	0
18	0	0	0	0
19	0	0	0	0
20	0	0	0	0
21	0	0	0	0
22	0	0	0	0
23	0	0	0	0
24	0	0	123	0

Similarly, Wells looked to reserve transmission on July 4, and found that ATC had reached zero on one of the wheel-through paths he was looking for.⁴⁸⁸

Hour	ALTW-NYIS	CIN-NYIS	FE-NYIS	NIPS-NYIS
1	2196	2797	0	2794
2	2274	2797	0	2366
3	2274	2818	0	2385
4	2281	2818	0	2385
5	2281	2818	0	2203
6	2281	2818	0	2067
7	2281	2818	0	2134
8	2282	2722	0	2035
9	2282	2722	0	1937
10	2262	2723	0	688
11	2181	2723	0	961
12	2073	2723	0	1109
13	2095	2723	0	918
14	2084	2709	0	1067
15	2076	2888	0	1248
16	2077	2886	0	1246
17	2077	2903	0	1253
18	2077	2903	0	1252
19	2095	2888	0	2800
20	2004	2889	0	1249
21	2003	2715	0	1068
22	2283	2748	0	1095
23	2139	2825	0	2719
24	2139	2825	0	2301

⁴⁸⁷ Excerpt of D. Jones Screenshot 1 (June 17, 2010, 10:18:43 a.m.).

⁴⁸⁸ Excerpt of Wells Test. Ex. 52 (Jul. 4, 2010 10:44 a.m.).

This shows what common sense suggests: that by reserving millions of MWh of transmission to make the OCL trades, Respondents at times deprived other market participants of the ability to do physical and financial trades that required Day-Ahead transmission.

E. Respondents Obstructed this Investigation

In addition to violating section 35.41(b), Respondents significantly impeded this investigation. In the Revised Policy Statement on Penalty Guidelines, the Commission included “Obstruction of Justice” as an aggravating factor in determining the culpability score.⁴⁸⁹ The Commission defined obstruction as follows:

If the organization willfully obstructed or impeded, attempted to obstruct or impede, or aided, abetted, or encouraged obstruction of justice during the investigation or resolution of the instant violation, or, with knowledge thereof, failed to take reasonable steps to prevent such obstruction or impedance or attempted obstruction or impedance.⁴⁹⁰

That standard is met here. By concealing material evidence such as the documents recorded by Spector 360 as well as other responsive documents and communications, and by providing false and misleading statements to Enforcement to cover-up their omissions and to dissuade Enforcement from taking testimony from certain witnesses, Respondents—particularly Coaltrain, Peter Jones, and Sheehan—engaged in a willful scheme to obstruct Enforcement’s investigation of market manipulation.

V. Remedies and Sanctions

A. Disgorgement

The Commission should disgorge the OCL Strategy’s net profits, namely \$4,121,894.⁴⁹¹ This represents the difference between the UTC spreads and transaction costs Coaltrain incurred to execute the OCL Strategy trades, and the MLSA it received thereby. Coaltrain caused losses to the market in the amount of \$8,053,066, which is the amount of MLSA that Respondents obtained as a direct result of their scheme.⁴⁹²

However, Enforcement also understands that Coaltrain is defunct. It ceased trading in early 2011, and its financial records indicate that it has insufficient funds to pay this disgorgement figure. Yet the evidence also indicates that Coaltrain’s co-owners,

⁴⁸⁹ *Enforcement of Statutes, Orders, Rules, and Regulations*, 132 FERC ¶ 61,216, at § 1C2.3(c)(2)(e) (2010) (Revised Penalty Guidelines).

⁴⁹⁰ *Id.*

⁴⁹¹ See Revised Penalty Guidelines at §1B1.1(a); *Enforcement of Statutes, Regulations, and Orders*, 123 FERC ¶ 61,156, at P 43 (2008) (“Requiring disgorgement is consistent with long-standing Commission practice . . . and the practice of other enforcement agencies . . .”) (citations omitted).

⁴⁹² See *supra* text accompanying note 8.

Peter Jones and Sheehan, withdrew more than \$33 million from Coaltrain *after this investigation started*, and that they paid this money to themselves and to other companies that they jointly control (more than \$24 million went directly to themselves).⁴⁹³ Therefore, Enforcement recommends that Peter Jones and Sheehan—each of whom directly participated in the manipulative scheme—should be held jointly and severally liable for Coaltrain’s disgorgement.

B. Civil Penalties

The civil penalties recommended here are well within the Commission’s statutory authority to impose penalties of up to \$1 million per day per violation.⁴⁹⁴ As Congress indicated, the Commission is to determine the amount of civil penalties within the statutory caps by assessing two factors: (1) seriousness of the violation and (2) efforts to remedy the violation.⁴⁹⁵ Here, Respondents’ violations were serious because they diverted millions of dollars of MLSA payments to themselves from other market participants, and they reserved millions of MWh of transmission to effectuate the scheme, thereby preventing other market participants from using that transmission. And, instead of trying to remedy them, Respondents persisted in their scheme even after the IMM asked them to stop, and even after they knew that the tariff was about to be changed to categorically prevent them from continuing with the OCL Strategy.

In addition, Enforcement recommends that Peter Jones and Sheehan be held jointly and severally liable for Coaltrain’s penalties. Enforcement makes this recommendation because Coaltrain is a defunct company with few assets left after its co-owners, Peter Jones and Sheehan, withdrew more than \$33 million from the company after this investigation began.

Accordingly, as discussed below, Enforcement recommends the following civil penalties:

- **Coaltrain:** \$26 million in civil penalties, jointly and severally with Peter Jones and Shawn Sheehan
- **Peter Jones:** \$5 million in civil penalties
- **Shawn Sheehan:** \$5 million in civil penalties
- **Robert Jones:** \$1 million in civil penalties

⁴⁹³ Bates No. COALTRAIN011829.

⁴⁹⁴ FPA Section 316A, 16 U.S.C. § 825o-1(b). Courts will uphold even “severe” sanctions within statutory limits. *See Sundheimer v. CFTC*, 688 F.2d 150, 153 (2d Cir. 1982). Given that Respondents executed more than ten thousand manipulative UTC trades between June 15 and September 2, 2010, at \$1 million per day per violation, the statutory limits for civil penalties are well above those proposed here.

⁴⁹⁵ Revised Penalty Guidelines at P 16; *Enforcement of Statutes, Regulations, and Orders*, 123 FERC ¶ 61,156, at P 51 (2008).

- **Jack Wells:** \$500,000 in civil penalties
- **Jeff Miller:** \$500,000 in civil penalties
- **Adam Hughes:** \$250,000 in civil penalties

1. Coaltrain’s Penalties

As an initial matter, and as discussed in *City Power* (at P 227), “the Commission determines penalties on a case-by-case basis ‘[w]here there are multiple violations falling under different Chapter Two guidelines.’”⁴⁹⁶ Like the *City Power* respondents, Respondents’ violations here “fall under Penalty Guidelines section 2B1.1, which is the Chapter Two guideline that includes fraud, and, separately, under Penalty Guidelines section 2C1.1, which is the Chapter Two guideline covering intentional misrepresentations and false statements.”⁴⁹⁷ Consequently, the Penalty Guidelines require Enforcement to calculate penalties here “on a case-by-case basis and [to] consider all the facts and circumstances, including the factors from our Revised Policy Statement on Enforcement, to guide this analysis.”⁴⁹⁸ Therefore, Enforcement must “consider the following five factors from our Revised Policy Statement on Enforcement to guide this analysis: (1) seriousness of the violation; (2) commitment to compliance; (3) self-reporting[;] (4) cooperation; and (5) reliance on OE Staff guidance.”⁴⁹⁹

To assist in considering appropriate penalties under the Revised Policy Statement on Enforcement, Enforcement separately calculated the range for a civil penalty against Coaltrain under the Penalty Guidelines. If separate chapters of the Penalty Guidelines were not implicated here, Enforcement’s calculation would result in a penalty range that easily encompasses the recommended \$26 million penalty against the company—in fact,

⁴⁹⁶ Revised 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); Section 2C1.1 (Guideline for Intentional or Reckless Misrepresentations and False Statements to the Commission or Commission Staff).

⁴⁹⁷ *City Power*, 152 FERC ¶ 61,012 at P 227; *see id.* n.548 (“We recognize that a ‘section 35.41(b) violation . . . is not limited to section 2C1.1 of the Penalty Guidelines [but] could also fall under section 2B1.1, covering fraud’ *Revised Policy Statement on Penalty Guidelines*, 132 FERC ¶ 61,216 at P 176. Given the nature of Respondents’ misrepresentations and false statements, however, we believe they fit more squarely into section 2C1.1 than section 2B1.1”).

⁴⁹⁸ *City Power*, 152 FERC ¶ 61,012 at P 227.

⁴⁹⁹ *Id.* P 229 (citing *Enforcement of Statutes, Regulations, and Orders*, 123 FERC ¶ 61,156 at PP 54-71 and *Kourouma*, 135 FERC ¶ 61,245 at P 42 (analyzing factors from *Revised Policy Statement on Enforcement* to determine appropriate penalty for individual)).

the sum of all recommended penalties here (\$38.25 million) would be below the middle of the range.⁵⁰⁰

The analysis that follows uses the penalty factors as addressed in *City Power* and *Chen*.⁵⁰¹

a. Seriousness Factor

i. Seriousness of the Manipulation Violation

Harm Caused by the Violations. As discussed above, identifiable market participants were harmed by the OCL Strategy because, as in *City Power* and *Chen*, “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.”⁵⁰² PJM provided calculations that show that Respondents collected MLSA payments of about \$8 million, and deprived 1 market participant of more than \$1 million, 2 others of more than \$500,000 each, and 6 others of more than \$125,000 each.⁵⁰³ In addition, the scheme affected transmission in PJM. To implement the scheme, Respondents reserved more than 4.61 million MWh of transmission service in connection with their fraudulent OCL Strategy trades. Therefore, the OCL Strategy affected “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.”⁵⁰⁴

Manipulation, Deceit, Fraud, and Recklessness or Indifference to Results of Actions. Respondents’ OCL Strategy trades operated as a fraud and deceit on PJM. Specifically, Respondents deceived PJM into disbursing MLSA payments by creating the false impression that they were trading to arbitrage price differentials when, in fact, their purpose was solely to collect MLSA payments to the detriment of other market participants.⁵⁰⁵

⁵⁰⁰ The harm caused by Respondents’ scheme (\$8.05 million), plus the base violation level and the volume of the trades, yields a base penalty of \$17.5 million. That is in turn multiplied by the culpability score, whose base of 5 is increased by 3 for obstruction of justice, to yield a multiplier of 1.6 to 3.2. \$17.5 times 1.6/3.2 equals \$28 to \$56 million.

⁵⁰¹ See *City Power*, 152 FERC ¶ 61,012 at PP 235-250; *Chen*, 151 FERC ¶ 61,179 at PP 169-172; 180-186.

⁵⁰² *City Power*, 152 FERC ¶ 61,012 at P 235; *Chen*, 151 FERC ¶ 61,179 at P 98.

⁵⁰³ “MLSA Account Level Summary Related To COALTR Removal Simulation.xlsx,” a document produced to Enforcement by PJM on Jan. 28, 2015. Enforcement produced this document to Respondents on February 4, 2015.

⁵⁰⁴ *City Power*, 152 FERC ¶ 61,012 at P 235; *Chen*, 151 FERC ¶ 61,179 at P 99.

⁵⁰⁵ See *City Power*, 152 FERC ¶ 61,012 at P 236.

Willful Action or in Concert with Others. The OCL Strategy scheme was willful because Respondents knew that the purpose of UTC trades was to arbitrage price differentials, but they affirmatively designed and executed their scheme to try to eliminate price differentials.⁵⁰⁶

Isolated Instance or Recurring Problem; Systematic and Persistent Wrongdoing and Duration. Respondents executed the OCL Strategy for about ten weeks, including four weeks *after* they clearly knew that the strategy was wrongful. In fact, they continued executing the strategy even after PJM had already made submissions to the Commission to amend the tariff to mechanistically stop loss-trading schemes such as the OCL Strategy. They stopped only the specific trades they were specifically asked to stop, and continued making OCL Strategy trades even after PJM began seeking to amend the tariff to prevent it.⁵⁰⁷

Was the Wrongdoing Related to Actions by Senior Management and Did Management Engage in a Cover-Up? Peter Jones and Sheehan were the co-owners of Coaltrain, and they personally participated in devising and executing the scheme. Moreover, they were both responsible for making false and misleading statements to the IMM and to Enforcement, and for the fact that Coaltrain concealed evidence for more than two years of this investigation.⁵⁰⁸

Put together, these considerations indicate that the OCL Strategy was a very serious violation, warranting a substantial penalty. The violations caused significant market harm, they were fraudulent and willful, persisted for nearly three months, and involved the directed participation by senior management, who also attempted to cover it up.

ii. Seriousness of the Violation of the Duty of Candor

Harm Caused by the Violations. Coaltrain caused harm by impeding Enforcement's efforts to investigate the relevant conduct. Over a period of more than two years beginning August 2010, Respondents made false and misleading statements to Enforcement and to the IMM, and omitted material evidence in their responses to Enforcement's requests. These violations caused Enforcement to waste valuable time and resources during their investigative process, and is an aggravating factor in penalty determinations.

Manipulation, Deceit, Fraud, and Recklessness or Indifference to Results of Actions. Coaltrain misrepresented material facts about relevant documents in an effort to hide them from Enforcement, and made false and misleading statements concerning those documents as well as the availability of their witnesses to testify. Such efforts were deceitful, reckless, and indifferent to the results of their actions.

⁵⁰⁶ See *City Power*, 152 FERC ¶ 61,012 at P 237.

⁵⁰⁷ See *City Power*, 152 FERC ¶ 61,012 at P 238.

⁵⁰⁸ See *City Power*, 152 FERC ¶ 61,012 at P 239.

Willful Action or in Concert with Others. Coaltrain’s efforts to conceal relevant evidence, both written and testimonial, was willful. Respondents repeatedly made decisions not to provide documents that Enforcement had requested, to make false and misleading statements to prevent Enforcement from taking relevant testimony, and to make false and misleading statements about their reasons for failing to provide requested documents in a timely and truthful way.

Isolated Instance or Recurring Problem; Systematic and Persistent Wrongdoing and Duration. Coaltrain’s cover-up was a recurring, systematic and persistent wrongdoing. For more than two years, Coaltrain concealed responsive materials from Enforcement, and then tried to prevent Enforcement from obtaining that evidence by making yet more false and misleading statements.

Was the Wrongdoing Related to Actions by Senior Management and Did Management Engage in a Cover-Up. Senior management—who had the responsibility to produce the documents and to ensure the veracity of the affidavits they signed—falsely claimed they had completed their production in response to Enforcement’s request.

As with the manipulation violations, Coaltrain’s misrepresentations were serious, warranting a significant penalty.

b. Mitigating Factors

Commitment to Compliance and Actions Taken to Correct Violations. Coaltrain did not have an adequate compliance program, nor did it take steps to correct its violations. Far from it: the company’s ownership played a significant role in devising and executing the manipulative scheme, and played a similar role in trying to impede this investigation.

Self-Reporting. Coaltrain did not self-report these violations, and in fact they continued making OCL Strategy trades after they clearly knew the strategy was wrongful, and even after PJM had begun the process of changing the tariff to mechanically prevent them from executing the OCL Strategy.

Cooperation. Coaltrain did not cooperate. A longstanding scheme to cover up their violations by concealing evidence and making false and misleading testimony is inconsistent with the concept of cooperation.

Reliance on Staff guidance. Respondents sought no staff guidance, and there was no staff guidance to rely on here.

c. Appropriate Penalty for Coaltrain

In light of these factors, Enforcement recommends a significant penalty be assessed against Coaltrain. Given the seriousness of its violations and of its attempts to impede staff’s investigation, Enforcement recommends a penalty in the amount of \$26 million. Enforcement further recommends that this penalty be assessed jointly and

severally against Peter Jones and Shawn Sheehan, who are Coaltrain’s co-owners.⁵⁰⁹ As noted above, Coaltrain has been defunct since early 2011, shortly after this investigation began, and it has insufficient assets left to pay appropriate penalties. However, Peter Jones and Sheehan withdrew more than \$33 million from Coaltrain’s accounts after this investigation started. And, as will be discussed below, both Peter Jones and Sheehan are individually liable for devising and executing the manipulative scheme. Therefore, the Commission should assess Coaltrain’s civil penalties jointly and severally against Peter Jones and Shawn Sheehan. Doing so is both justified and consistent with the Commission’s statement that “joint and several liability is appropriate where, as occurred here, multiple Respondents collaborate or have a close relationship in executing the fraud.”⁵¹⁰

2. Individual Liability

In addition to Coaltrain, there were several owners and employees at the company who have individual responsibility for devising and executing the manipulative scheme. The Commission has authority to assess penalties against individuals as well as

⁵⁰⁹ Unlike the respondents in *City Power*, Coaltrain does not claim to be unable to pay its penalties. In any event, as the Commission held in *City Power*, Peter Jones and Sheehan have sufficient assets to pay Coaltrain’s penalties. See *City Power*, 152 FERC ¶ 61,012 at PP 230, 258.

⁵¹⁰ *City Power*, 152 FERC ¶ 61,012 at P 274 (citing *SEC v. Whittemore*, 659 F.3d 1, 10-11 (D.C. Cir. 2011)). Joint and several liability is crucial for practical reasons: absent that provision, Peter Jones and Sheehan would have the ability to make a civil penalty against Coaltrain a nullity because they are the sole co-owners of Coaltrain and have already rendered the company defunct by removing almost all of its assets. Under settled law, the Commission has the power under these circumstances to look past the corporate form when doing so is in the public interest. See *Capital Tel. Co., Inc. v. FCC*, 498 F.2d 734, 738 (D.C. Cir. 1974) (“[t]he courts have consistently recognized that a corporate entity may be disregarded in the interest of public convenience, fairness and equity [W]hen the notion of legal entity is used to defeat public convenience, justify wrong, protect fraud, or defend crime, the law will regard the corporation as an association of persons.”) (quoting *United States v. Milwaukee Refrigerator Transit Co.*, 142 F. 247, 255 (C.C.E.D. Wis. 1905)); see also *Town of Brookline v. Gorsuch*, 667 F.2d 215, 221 (1st Cir. 1981) (following *Capital Tel. Co.*, 498 F.2d 734); *United States v. Emor*, 850 F. Supp. 2d 176, 204 (D.D.C. 2012) (same).

The Commission has applied this same principle. E.g., *San Diego Gas & Elec. Co. v. Sellers of Mkt. Energy & Ancillary Services*, 127 FERC ¶ 61,269, at 62,309 (2009) (“The Commission’s policy for addressing affiliate transactions and the authority of the Commission to disregard corporate forms when necessary to fulfill its statutory obligations are well documented . . . Accordingly, the Commission may regard two entities as one when necessary to meet a statutory goal.”); *Town of Highlands, N.C. v. Nantahala Power & Light Co.*, 37 FERC ¶ 61,149 (1986) (affirming ALJ decision to disregard distinction between firm and its upstream owner, and noting that “an agency may disregard the corporate form in the interest of public convenience, fairness, or equity”).

companies.⁵¹¹ Their violations largely mirror that of the company, and so it is not necessary to separately address each of the factors for determining appropriate penalties.⁵¹²

a. Peter Jones

Peter Jones is the co-owner of Coaltrain, and he played a substantial role in devising and executing the OCL Strategy. His communications in early to mid-June 2010 indicate that he played an important role in devising this strategy, and he himself executed many of the OCL Strategies throughout the course of the scheme. He also directed and supervised his subordinates who participated in the scheme, and encouraged them to do OCL Strategy trades. Jones also played a critical role in the company's decision not to produce the highly relevant Spector 360 data, as it was he who falsely signed the affidavits attesting to the truthfulness and completeness of Coaltrain's responses to Enforcement's data requests. He was also involved in the process of providing false and misleading statements about Jack Wells's health to dissuade Enforcement from taking his testimony. Accordingly, Peter Jones's violations were serious.

As with Coaltrain, the mitigating factors that the Commission takes into consideration do not apply here. Peter Jones did not correct the violations or show any commitment to compliance, he did not self-report the violations but instead continued them long after misleadingly telling the IMM that they would stop doing trades that the IMM was concerned about, and his role in failing to produce the Spector 360 data shows a lack of cooperation.

In light of these considerations, Enforcement recommends that Peter Jones be assessed substantial penalties. He was personally enriched by the scheme, and he along with Shawn Sheehan withdrew more than \$33 million from Coaltrain alone starting in August 2010, leaving the company defunct and without substantial remaining assets. There is also no question of Peter Jones's ability to pay a significant penalty: he had more than \$21 million in income in 2010-11.⁵¹³ Therefore, Enforcement recommends a personal penalty of \$5 million against Peter Jones, and that the penalties against Coaltrain be assessed jointly and severally against him.

b. Shawn Sheehan

Shawn Sheehan is the other co-owner of Coaltrain, and he too played a substantial role in devising and executing the OCL Strategy. His communications with Jeff Miller and others indicate his role in developing the strategy, and he himself executed OCL Strategy

⁵¹¹ See *City Power*, 152 FERC ¶ 61,012 at P 265; *Chen*, 151 FERC ¶ 61,179 at P 178.

⁵¹² See *City Power*, 152 FERC ¶ 61,012 at P 263.

⁵¹³ Bates Nos. PJONES0000103, PJONES0000172. Unlike the respondents in *City Power*, Peter Jones does not claim that he would be unable to pay his penalties—nor could he. See *City Power*, 152 FERC ¶ 61,012 at PP 230, 258.

trades. He also directed and supervised his subordinates who participated in the scheme, and encouraged them to do OCL Strategy trades. Furthermore, he played an important role in covering up evidence, as he had the Spector 360 data in his possession and he falsely and misleadingly tried to excuse their failure to produce the materials on the grounds that Respondents “forgot” about it, when in fact contemporaneous evidence shows that he was not only aware of Spector 360 at the time when they should have been producing it, but he was actively involved in discussions about the software. Accordingly, Sheehan’s violations were serious.

As with Coaltrain, the mitigating factors that the Commission takes into consideration do not apply here. Sheehan did not correct the violations or show any commitment to compliance, he did not self-report the violations but instead continued them long after the IMM was told that they would stop doing trades that the IMM was concerned about, and his role in failing to produce the Spector 360 data shows a lack of cooperation.

In light of these considerations, Enforcement recommends that Sheehan be assessed substantial penalties. He was personally enriched by the scheme, and he along with Peter Jones withdrew more than \$33 million from Coaltrain alone starting in August 2010, leaving the company defunct and without substantial remaining assets. There is no question of his ability to pay: Sheehan received more than \$30 million in income in 2010-11.⁵¹⁴ Therefore, Enforcement recommends a personal penalty of \$5 million against Sheehan, and that the penalties against Coaltrain be assessed jointly and severally against him.

c. Robert Jones

Robert Jones was a trader who worked on behalf of Coaltrain, and he is part-owner of Peter Jones’s new set of companies. Robert Jones played a substantial role in devising and executing the OCL Strategy trades. His communications demonstrate knowledge of the OCL Strategy, and he himself executed many of the OCL Strategy trades. His violations were serious.

As with Coaltrain, the mitigating factors that the Commission takes into consideration do not apply here. Robert Jones did not correct the violations or show any commitment to compliance, he did not self-report the violations but instead continued them long after the IMM was told that they would stop doing trades that the IMM was concerned about, and his role in failing to produce the Spector 360 data shows a lack of cooperation.

In light of these considerations, Enforcement recommends that Robert Jones be assessed significant penalties. He was personally enriched by the scheme—in 2010-11,

⁵¹⁴ Bates No. SHEEHAN0000244. Unlike the respondents in *City Power*, Sheehan does not claim that he would be unable to pay his penalties—nor could he. *See City Power*, 152 FERC ¶ 61,012 at PP 230, 258.

his income rose more than sixfold to more than \$1.5 million.⁵¹⁵ Therefore, Enforcement recommends that the Commission assess a personal penalty of \$1 million against Robert Jones.

d. Jack Wells

Jack Wells was a trader who worked on behalf of Coaltrain, and he played a significant role in devising and executing the OCL Strategy. Throughout the summer, he executed many of the OCL Strategy trades, and in his testimony he displayed candid awareness that the OCL Strategy was “the opposite” of a “normal analysis” and that it was not “congestion based.”

As with Coaltrain, the mitigating factors that the Commission takes into consideration do not apply here. Wells did not correct the violations or show any commitment to compliance, he did not self-report the violations but instead continued them long after the IMM was told that they would stop doing trades that the IMM was concerned about, and his role in making misleading statements about his health shows a lack of cooperation.

In light of these considerations, Enforcement recommends that Wells be assessed significant penalties. He was personally enriched by the scheme—his income more than doubled in 2010 and 2011, to nearly \$500,000.⁵¹⁶ However, his ability to pay penalties is somewhat more limited than Robert Jones’s. Therefore, Enforcement recommends that the Commission assess a personal penalty of \$500,000 against Wells.

e. Jeff Miller

Jeff Miller was also a trader who worked on Coaltrain’s behalf, and he played an important role in devising and executing the OCL Strategy. The evidence shows that he was deeply involved in the planning of the strategy in early June 2010. Although he did not personally execute any OCL Strategy trades, the evidence shows that he recommended that others execute OCL Strategy trades—and in so doing, was specifically recommending the trades be done pursuant to the OCL Strategy. Thus, he played more of a supervisory role in enacting the OCL Strategy, but his role was important.

As with Coaltrain, the mitigating factors that the Commission takes into consideration do not apply here. Jeff Miller did not correct the violations or show any commitment to compliance, and he did not self-report the violations.

In light of these considerations, Enforcement recommends that Miller be assessed significant penalties. He was personally enriched by the scheme, doubling his salary to more than \$800,000 from 2010 to 2011.⁵¹⁷ However, his role in the scheme was more

⁵¹⁵ Bates Nos. RJONES0000010-24, RJONES0000025-66.

⁵¹⁶ Bates Nos. WELLS0000009, WELLS0000025.

⁵¹⁷ Bates Nos. MILLER0000024, MILLER0000057.

limited than Robert Jones's. Therefore, Enforcement recommends that the Commission assess a personal penalty of \$500,000 against Miller.

f. Adam Hughes

Adam Hughes was a software and trading analyst who worked on behalf of Coaltrain. The evidence shows that he played a critical role in devising the OCL Strategy. It was Hughes who identified the loss credits and realized that the size of the loss credits made it worthwhile to voluntarily pay for transmission (thereby increasing their transaction costs) in order to be eligible for MLSA payments. He was also the one who first identified the best OCL Strategy trades—SouthImp-Exp and NCMPAImp-Exp—and notified Sheehan about it. He also developed software applications to enable the traders to better look for OCL Strategy trades, and assess whether the trade would be profitable. And he revised the firm's PNL software to enable them to track MLSA payments and how those payments turned apparent UTC losses into net gains. Finally, he played an important role in concealing evidence from Enforcement, as he decided not to include his own IMs in the firm's production set, and although he played an important role in managing the Spector 360 data set, he did not ensure that it was produced to Enforcement. Accordingly, his role in the violations was significant.

As with Coaltrain, the mitigating factors that the Commission takes into consideration do not apply here. Adam Hughes did not correct the violations or show any commitment to compliance, he did not self-report the violations, and his role in the cover-up shows a lack of cooperation.

In light of these considerations, Enforcement recommends that Hughes be assessed significant penalties. He was personally enriched by the scheme, receiving \$414,000 in bonuses for 2010.⁵¹⁸ However, his role in effectuating the scheme was more limited than that of the other individuals. Therefore, Enforcement recommends that the Commission assess a personal penalty of \$250,000 against Hughes.

VI. Conclusion

For the reasons discussed above, Enforcement recommends that the Commission direct Respondents to show cause why they have not violated FPA section 222 and section 1c.2 of the Commission's regulations, which prohibits the manipulation of markets in whole electricity, and direct Coaltrain to show cause why it has not violated 18 C.F.R. § 35.41(b). Enforcement further recommends the Commission direct Coaltrain to show cause why it should not disgorge \$4,121,894 million in unjust profits; and direct Coaltrain, Peter Jones, Shawn Sheehan, Robert Jones, Jack Wells, Jeff Miller, and Adam Hughes to show cause why they should not pay penalties of \$26 million, \$5 million, \$5 million, \$1 million, \$500,000, \$500,000, and \$250,000, respectively. In the event that any of Respondents are unable to pay their penalties or disgorgement in a lump sum,

⁵¹⁸ Coaltrain Resp. to Enforcement Sept. 9, 2013 Subpoena, Request 4 (Sept. 27, 2013); *see also* Bates No. HUGHES0000085.

Enforcement recommends that the Commission provide an option to establish an appropriate payment plan. Finally, Enforcement recommends that the Commission hold Coaltrain, Peter Jones, and Shawn Sheehan jointly and severally responsible for Coaltrain's disgorgement and penalties.