

UNITED STATES OF AMERICA  
BEFORE THE  
FEDERAL ENERGY REGULATORY COMMISSION

PJM Up-to Congestion Transactions )

Docket No. IN10-5-000

**AFFIDAVIT OF RICHARD G. WALLACE**

1. I have been retained by the law firm of Drinker Biddle & Reath LLP to evaluate the trading activity of Dr. Houlian (Alan) Chen (“Dr. Chen”) on behalf of Powhatan Energy Fund LLC (“Powhatan”) in the PJM Interconnection, LLC (“PJM”) and to analyze whether this trading would be considered illegal wash trading or manipulative trading under the anti-manipulation standards of Section 10(b) of the Security Exchange Act of 1934 (“Exchange Act”), and Rule 10b-5 thereunder. I conclude that under Section 10(b) and Rule 10b-5, Dr. Chen’s trades would not be considered illegal wash trades or manipulative trades.

2. I have familiarized myself with the details of this investigation through conversations with Dr. Chen and Kevin Gates, and by reviewing various materials, including the deposition transcripts and related exhibits of Kevin Gates’ depositions, dated September 23, 2010 and September 7, 2011, the Written Submission to the Staff of the Federal Energy Regulatory Commission (“FERC”) on behalf of Dr. Chen, dated December 13, 2010, Dr. Craig Pirrong's Affidavit, dated December 8, 2010, various FERC decisions and rule-making releases dealing with Up-to-Congestion Transactions, transmission loss credits, and manipulation standards, as well as publicly-available materials regarding the PJM market.

**Background and Qualifications**

3. I am a partner at the law firm of Foley & Lardner LLP (“Foley”), resident in the Washington, D.C. office, where I am a member of the Securities Enforcement & Litigation and Securities, Commodities & Exchange Regulation Practices.

4. I have more than 18 years of experience with the National Association of Securities Dealers (“NASD”), now known as the Financial Industry Regulatory Authority (“FINRA”), and the United States Securities and Exchange Commission (“SEC”), and have extensive knowledge and experience leading securities enforcement investigations and litigation, while also advising broker-dealers on regulatory issues. While at Foley, I have represented high-frequency trading firms in connection with investigations by FINRA and the New York Stock Exchange (“NYSE”). I have an in-depth understanding of market manipulation and fraud in the securities markets through my work at Foley, FINRA and the SEC, as described below.

5. Prior to joining Foley, I was Vice President and Chief Counsel in FINRA’s Market Regulation Department (2001-2008). I was responsible for the Department’s Legal Section and its role in all formal actions taken by the Department. I supervised approximately two dozen attorneys in the Department’s Legal Section along with the Department’s two Special Investigative Units. The Legal Section handled approximately 300 formal and 200 informal

disciplinary actions per year. I oversaw the filing of complaints with FINRA's Office of Hearing Officers and the Department's litigation of those matters.

6. FINRA is a registered national securities association and thus a self-regulatory organization ("SRO"). Registered securities exchanges, such as the NYSE, Nasdaq OMX ("Nasdaq"), and other registered exchanges (the "exchanges"), are also SROs. SROs promulgate and enforce a variety of rules, including rules requiring their members to observe "high standards of commercial honor and just and equitable principles of trade," such as FINRA's Rule 2010, and they prohibit fraud and manipulation in the securities industry.

7. The Legal Section participated in gathering and analyzing information in FINRA investigations, examinations, and sweeps. I oversaw disciplinary actions involving, among other things, fraud and market manipulation, including spoofing, layering, and wash trading. One of my responsibilities was to determine if the facts established the necessary elements of a violation of the law, regulation, or rule. The Market Regulation Department was responsible for surveillance of the Nasdaq and the over-the-counter ("OTC") equities markets, along with the TRACE and municipal securities fixed income markets.

8. Some of the significant cases brought by the Market Regulation Department during my tenure as Vice President and Chief Counsel included many cases that involved allegations of market manipulation and fraud, such as:

- Debt markup cases against seven firms (2004 and 2005) – Settlements imposing fines totaling \$26,750,000.
- Peter Kellogg (October 2004) – After a hearing, an NASD Hearing Panel dismissed charges of manipulation against Mr. Kellogg for executing matched trades between accounts he controlled for the purpose of realizing tax benefits on the trades.
- Knight Securities L.P. (December 2004) – A joint settlement with the SEC providing for \$79 million in fines, restitution, and interest for the fraudulent handling of institutional orders.
- David Lazarus (July 2005) – A trader entered into a settlement and consented to fines and a suspension for manipulating the market by engaging in transactions to improve the national best bid and offer ("NBBO"), to enable him to trade those securities at more favorable prices with firms offering automated execution at the NBBO.
- Terrance Yoshikawa (August 2005) – A trader was found to have engaged in manipulation through the use of matched trades which manipulated the prices of several stocks.
- Instinet LLC and INET ATS (October 2005) – A joint settlement in which the firms agreed to pay \$1.475 million in fines to settle FINRA charges of publishing inaccurate reports on order execution quality.

- Phillip Melnick (March 2006) – A Hearing Panel entered a default decision finding that a trader had engaged in market manipulation by executing one share transactions designed to improve the NBBO to enable him to trade those securities in larger quantities at more favorable prices.
- 19 trade volume advertising cases (January 2008) – 19 settlements for a total of \$2.8 million for advertising inaccurate trade volume as to equity securities.

9. While at FINRA, I also worked with FINRA’s Market Regulation Committee on the adoption and revision of FINRA rules dealing with customer protection, market making, and reporting.

10. Prior to joining FINRA, I served as an attorney and later as a branch chief with the SEC’s Division of Enforcement from 1990 to 1996. As a branch chief, I supervised six attorneys. While at the SEC, I worked on investigations and litigation involving complex accounting issues, insider trading, issuer fraud, and broker-dealer fraud. I handled investigations and litigation for a variety of high-profile cases, including *SEC v. Eddie Antar* (the “Crazy Eddie” insider trading case), *In re Caterpillar, Inc.* (financial disclosure), *In re BT Securities, Inc.* (fraud in the sale of securities based derivatives), and *SEC v. Pitt, et. al.* (C.D. Cal. 1986) (stock manipulation).

11. I am a frequent speaker at conferences sponsored by ALI-ABA, FINRA, the SEC, the National Society of Compliance Professionals, and the Security Traders Association (“STA”). For the last four years, I have been a member of the STA’s Compliance Committee.

12. My publications include my work as a contributing author of *Chapter 25: SRO Regulatory Matters*, Securities Enforcement Treatise: Counseling and Defense, published by Matthew Bender (Sept. 2005); *FINRA Priorities and FINRA Results*, published in Law360 (Mar. 2010); *Use of Independent Consultants as a Remedy in Securities Enforcement Actions*, published in BNA Securities Regulation & Law Report (Apr. 2010); *Goldman Sachs and the Wells Process*, published in Law360 (May 2010); *Clearly Erroneous Trades, Circuit Breakers, and Related Developments*, published in BNA Securities Regulation & Law Report (Feb. 2011); and *Assessing FINRA Priorities and Results*, published in Law360 (Feb. 2011).

13. From 1984 to 1985, I served as a law clerk to the Honorable Samuel P. King, Chief Judge, United States District Court of the District of Hawaii. I earned my law degree from Berkeley Law, University of California (J.D., 1984), where I was executive editor of the California Law Review. I am a graduate of University of California, Berkeley (A.B., with honors, 1981). I am admitted to practice in the District of Columbia and California.

### **Introduction**

14. I understand that the Staff of the Division of Investigations of FERC is currently investigating the up-to-congestion trades on the PJM effectuated by Dr. Chen for Powhatan which were motivated in part by the transmission loss credits (“TLCs”) available for such trades. The core question in this inquiry is the propriety of traders engaging in transactions motivated in

part by receipt of the TLCs. I understand that the Staff of FERC is considering whether such trades constitute unlawful market manipulation.

15. Because the concept of market manipulation in FERC rules is based on Section 10(b) of the Exchange Act and Rule 10b-5 thereunder, FERC should note that trading for the purpose of collecting a rebate is considered a lawful and recognized practice in the securities markets. Further, the SEC has allowed certain trading strategies in the options markets that rely on offsetting riskless trades that create volume without adding liquidity to the market, and are effectuated solely to earn certain dividends. When FERC adopted rules prohibiting market manipulation, it explained that these rules were “patterned after the [SEC’s] Rule 10b-5” and are “intended to be interpreted consistent with analogous SEC precedent that is appropriate under the circumstances.” *Prohibition of Energy Mkt. Manipulation*, 114 F.E.R.C. ¶ 61,047 at P 2, 52-53 (Jan. 19, 2006) (“Order No. 670”). As discussed in more detail below, just as PJM offered TLCs for various economic reasons, securities exchanges have offered certain forms of rebates to market participants, and options exchanges have approved fee caps whereby participants can profit by earning dividends through a strategy based on off-setting trades.

#### **Rebates for Reporting Trade Data in the Equities Markets**

16. There have historically been two primary types of rebates in the securities markets: initially there were rebates for reporting trading on an exchange or other market, and subsequently there have been rebates for providing liquidity to markets operating pursuant to the maker-taker fee model. Rebates for reporting trade data are discussed first, below.

17. The concept of fees for trade data came about from the 1975 amendment to the Exchange Act, which established the requirement of a national market system (“NMS”). Key components of the NMS were the systems for collecting and distributing consolidated market data. Consolidated market data includes both (1) pre-trade transparency – real-time information on the best-priced quotations at which trades may be executed in the future (“consolidated quotation data”), and (2) post-trade transparency – real-time reports of trades as they are executed (“consolidated trade data”). As a result of these requirements, the public has ready access to a comprehensive and reliable source of information for the prices and volume of any NMS stock (generally those stocks listed on a national securities exchange).

18. Consolidated market data is collected and distributed pursuant to a variety of Exchange Act rules and joint-industry plans. With respect to post-trade transparency, the exchanges and FINRA are required to file a transaction reporting plan regarding transactions in listed equity securities. These SROs are also required to act jointly pursuant to national market system plans to disseminate consolidated information, including an NBBO on quotations for and transactions in NMS stocks. Consolidated information for each NMS stock must be disseminated through a single plan processor.

19. To comply with these requirements, the exchanges and FINRA participate in joint-industry plans (“Plans”). Pursuant to the Plans, three separate networks distribute consolidated market data for NMS stocks: (1) Network A for securities with their primary listing on the NYSE; (2) Network B for securities with their primary listing on exchanges other than the NYSE or Nasdaq; and (3) Network C for securities with their primary listing on Nasdaq. The

three Networks establish fees for the data, which must be filed for SEC approval. The three networks collect the applicable fees from Reuters, Bloomberg and other data vendors and, after deduction of network expenses, allocate the remaining revenues to the SROs.

20. Market data revenues have amounted to hundreds of millions of dollars annually and have represented a significant portion of the exchanges' total revenues. For example, in 2004, Networks A, B, and C generated net income of approximately \$155 million, \$100 million, and \$138 million, respectively, for a total of approximately \$394 million. *See* Security and Exchange Commission, Regulation NMS Adopting Release, 70 Fed. Reg. 37,496, 37,558 (June 9, 2005) (codified at 17 C.F.R. Parts 200, 201, 230, 240, 242, 249, and 270) ("Reg. NMS Adopting Release"). This constituted about 10-15 percent of total revenues reported by the largest exchanges in 2004 and more for some of the smaller exchanges. *See* Cecilia Caglio and Stewart Mayhew, *Equity Trading and the Allocation of Mkt. Data Revenue*, at 1 (May 27, 2009) ("Caglio & Mayhew").

21. Prior to 2007, the revenues were allocated in a manner that rewarded SROs for reporting the maximum number of trades, regardless of the number of shares traded. For securities in Networks A and B, the calculation was based on each SRO's share of reported trades. For Nasdaq securities, an SRO's revenues were based on the average of its reported trades and share volume. As an example, if an SRO reported 10 percent of the trades for NYSE-listed stocks, it got 10 percent of the market data revenue distributed for NYSE-listed stocks. That allocation was the same whether the SRO's average print was for 100 shares or 10,000 shares.

22. In order to maximize earnings from these rebates, in the late 1990s exchanges began to introduce programs to share data revenue with the specialists or member firms that generated the order flow. Between 1997 and 1999, revenue sharing or rebate programs were initiated by the Chicago Stock Exchange ("CHX"), the Cincinnati Stock Exchange ("CSE"), the Boston Stock Exchange ("BSE"), and Nasdaq. Members of the exchanges who exceeded certain levels of reported trading activity in exchange-listed securities were awarded a certain percent of the market data revenue received from the Plan that was attributable to the members' trades ("tape rebates").

23. During 2000 and 2001, electronic communications networks ("ECNs") also began to provide tape rebates, especially on trades of exchange traded funds. As rebates grew, trading became cheaper, which led to increased volume.

24. These tape rebate programs were initiated with the SEC's approval and had a clear influence on trading behavior. As noted by the Caglio and Mayhew study for the SEC's Office of Economic Analysis:

It has long been understood by industry participants and regulators that allocation formulas influence how trades are executed and reported. . . . [This paper] confirms the incentives created by allocation formulas are large enough to have a significant impact on average trade size [and] that revenue-sharing/rebate programs are a key mechanism used by the exchanges to align the incentives of order-flow providers with the exchange.

Caglio & Mayhew at 4.

### **Tape or Trade Shredding**

25. The advent of tape rebates led to many traders engaging in a practice known as “tape shredding” or “trade shredding” – a term used to describe the practice of intentionally splitting orders for securities into multiple smaller orders (e.g., splitting a 1,000 share order into ten 100-share orders) for the primary purpose of maximizing payments of rebates.

26. This practice caused the SEC to become concerned that market participants were increasingly engaging in tape shredding as a means of increasing their share of tape rebates. The SEC was worried that tape shredding might occur at the expense of best execution of customer orders. The SEC dealt with the situation in two ways. One, it sought to disincentivize this behavior by changing, through rule-making, the allocation formula determining how participants in the Plans were allocated rebates. Two, it reached out to the SROs and asked them to adopt explicit rules prohibiting the practice of tape shredding.

27. The SEC altered the formula which allocated market data fees to SROs when it adopted Rules 601 – 603 of Regulation NMS (“Reg. NMS”) and revised the joint industry plans in June 2005. This revised formula, which went into effect in 2007, eliminated the print disparity and encouraged aggressive quoting by rewarding exchanges for automated and accessible limit orders. Pursuant to the new formula, half the tape revenues were allocated based on an SRO’s quoting share, and the other half were distributed according to an SRO’s share of the trading. An SRO’s trading share was computed in a way that did not assign equal value to small and large trades.

28. While the SEC and SROs acknowledged that tape shredding was disruptive, they did not state that it was illegal or in violation of any securities laws or rules, including the SRO rules prohibiting acts that are contrary to high standards of commercial honor and just and equitable principles of trade. In particular, the SEC stated in the Reg. NMS Adopting Release:

[T]he current [joint industry] Plan formulas are seriously flawed by an excessive focus on the number of trades, no matter how small the size, reported by an SRO. They thereby create an incentive for distortive behavior, such as wash sales and trade shredding, and fail to reflect an SRO’s contribution to the best displayed quotations in NMS stocks. The [newly] adopted formula corrects these flaws.

Reg. NMS Adopting Release, 70 Fed. Reg. at 37,503.

29. In addition to revising the allocation formula, in early 2005 the SEC asked the SROs to pass rules prohibiting tape shredding, and in between August 2005 and May 2006, six exchanges and the NASD adopted rules prohibiting tape shredding.<sup>1</sup>

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<sup>1</sup> See, e.g., Caglio & Mayhew at 17, and NASD Notice to Members 06-19, *SEC Approves New Rule 3380, Order Entry & Execution Practices* (Apr. 2006).

30. While the SEC and the SROs clearly recognized that the tape rebates were causing market participants to engage in trading behavior that was impacting the markets and the allocation of tape revenues, and potentially harming customers, they did not seek to punish these market participants for tape shredding in response to rebates which were put in place with the approval of the SEC. Rather, they sought to change the rebate structure to discourage participants from engaging in tape shredding and to incorporate explicit prohibitions against such behavior into SRO rules.

### **Liquidity Rebates, High Frequency Trading and Trading Strategies Based on Rebates**

31. A maker-taker fee model has been adopted by exchanges to subsidize the provision of liquidity on their exchanges. Pursuant to this model, exchanges pay a fee to those who post non-marketable limit orders to buy or sell securities (and therefore “make” liquidity), and charge a fee to those who submit active market orders or marketable limit orders that “take” liquidity. Firms can add liquidity with non-marketable resting limit orders to either buy or sell a security.

32. These rebates for making liquidity have been a major facilitator for the emergence of algorithmic high frequency trading (“HFT”). While there is no strict definition of HFT, it typically refers to professional proprietary traders that engage in thousands and sometimes millions or more trades a day. They establish positions for very short time periods, submit numerous orders that are cancelled shortly after submission, and typically do not carry any positions over-night. HFT has been described as “a very low-margin, low-risk strategy. Traders earn less than a penny a share and rarely hold overnight positions. Profits are measured in hundredths of a cent, or ‘mils,’ to use the industry parlance. [According to a former head of quantitative trading at Goldman Sachs], high frequency traders typically earn about 10 mils, or 0.1 cent, a share trading U.S. equities. One of the attractions of the strategy is its consistency. High frequency traders rarely have losing days.” See Michael Peltz, *Inside the Machine: A Journey into the World of High Frequency Trading*, Institutional Investor, May 2010, at 115.

33. The SEC published a Concept Release on Equity Market Structure in January 2010 which focused, in large part, on the changes to the market caused by the emergence of HFT. See Securities and Exchange Commission, *Concept Release on Equity Mkt. Structure*, 75 Fed. Reg. 3594 (Jan. 21, 2010) (codified at 17 C.F.R. Part 242) (“SEC Concept Release”). It noted that HFT firms account for 50 percent or more of the total volume in the U.S. equities markets, and that “HFT is a dominant component of the current market structure and is likely to affect nearly all aspects of its performance.” *Id.* at 3606.

34. The SEC also acknowledged that liquidity rebates have played a significant role in the creation and strategies of HFT firms:

Highly automated exchange systems and liquidity rebates have helped establish a business model for a new type of professional liquidity provider that is distinct from the more traditional exchange specialist and [OTC] market maker. In particular, proprietary trading firms and the proprietary trading desks of multi-service broker-dealers now take advantage of low-latency systems and liquidity rebates by submitting large numbers of

non-marketable orders (often cancelling a very high percentage of them), which provide liquidity to the market electronically.

*Id.* at 3599.

35. One of the significant strategies used by HFT firms is passive market making. Passive market makers submit non-marketable bids and offers that rest on the exchange order books and provide liquidity at specified prices. Sometimes the passive market makers take liquidity (i.e., enter a bid or offer that is immediately executed at market price), but as explained by the SEC in its Concept Release, “[The HFT’s] primary sources of profits are from earning the spread by buying at the bid and selling at the offer and *capturing any liquidity rebates* offered by trading centers to liquidity-supplying orders.” *Id.* at 3707 (emphasis added).

36. In fact, the profit that can accrue from capturing liquidity rebates can often be greater than any profits from earning the spread. Several factors contribute to this situation. First, there is never a guarantee that a trader will be able to capture the spread before the market moves adversely to his position. Second, the mean bid-ask spread for most actively traded stocks is about \$0.02.<sup>2</sup> Third, liquidity rebates at the NYSE and BATS Exchange range from \$0.0017 to \$0.0031<sup>3</sup> and a trader can trade in a manner guaranteeing that he will earn the liquidity rebate for both buying and selling securities. Thus, the guaranteed rebate for buying and selling through orders that provide liquidity can be as high as \$0.0062. While the mean spread at \$0.02 is somewhat larger than two rebates, the mean spread is not guaranteed.

37. The current fee for taking or removing liquidity on Nasdaq is \$0.0030 per share. Nasdaq’s highest rebate for adding liquidity, after meeting a certain threshold, is \$0.0029 per share.

38. The fact that rebates are an important aspect of many HFT firms’ trading strategies and that some firms conduct some trades solely for the rebates has been acknowledged by the SEC. In its Concept Release the SEC stated: “One important aspect of passive market making is the liquidity rebates offered by many exchanges and ECNs...[t]he Commission requests comment on the volume of high frequency trading geared toward earning liquidity rebates and on the benefits or drawbacks of such trading.” *Id.* at 3608.

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<sup>2</sup> See RGM Advisors, LLC, *Market Efficiency and Microstructure Evolution in U.S. Equity Markets: A High-Frequency Perspective*, at 5 (Oct. 2010), available at [http://fnce.wharton.upenn.edu/news/Litzenberger\\_transient\\_vol5\\_2010.pdf](http://fnce.wharton.upenn.edu/news/Litzenberger_transient_vol5_2010.pdf). (explaining that the mean bid-ask spread for the stocks listed in the Russell 1000 Index in 2010 is approximately \$.02.).

<sup>3</sup> See NYSE Trading Fee Schedule, available at <http://usequities.nyx.com/markets/nyse-equities/trading-fees> and BATS BZX Exchange Fee Schedule, available at <http://www.batstrading.com/FeeSchedule/>.

39. Moreover, the SEC asked, “For example, are there risk-free trading strategies driven solely by the ability to recoup a rebate that offer little or no utility to the marketplace?” *Id.* The SEC did not suggest or imply that such trading is in any way fraudulent or illegal. In fact, industry commentators responding to the SEC’s questions regarding HFT and liquidity rebates have affirmed that there are indeed HFT firms that rely solely on rebates to be profitable.<sup>4</sup>

40. Like the SEC, the International Organization of Securities Commissions (“IOSCO”) released a paper last year in which it reviewed HFT and concluded that it is in part driven by the rebates from the maker-taker model: “[M]aker/taker structures can lead to trading strategies aimed at optimizing rebates received for providing liquidity versus fees paid for taking it, rather than focusing on the level of the given instrument’s price.” IOSCO Consultation Report, *Regulatory Issues Raised by the Impact of Technological Changes on Market Integrity and Efficiency*, at 18 (July 2011).

41. Significantly, when HFT firms buy and sell a security at the same price in close time proximity and earn two rebates, the traders are on a net basis adding no real liquidity to the market.

42. As the SEC and Commodity Futures Trading Commission (“CFTC”) noted in their report on the so-called “flash crash” of May 6, 2010, where the securities markets crashed and then rebounded in a matter of minutes, “[u]ntil recently, the fluctuations in the bid ask spread regulated the demand and supply of liquidity in financial markets. Now, it appears that in a world of HFT, bid ask spreads no longer provide sufficient incentives to offer liquidity in periods of high volatility.” Joint CFTC-SEC Advisory Committee on Emerging Regulatory Issues, *Recommendations Regarding Regulatory Responses to the Market Events of May 6, 2010*, p. 9 (Feb. 2011). Further, “especially in times of significant volatility, high trading volume is not necessarily a reliable indicator of market liquidity.” Joint CFTC-SEC Advisory Committee on Emerging Regulatory Issues, *Findings Regarding the Market Events of May 6, 2010*, at 3 (Sept. 2010).

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<sup>4</sup> See, e.g., Correspondence from M. Nanang (Tradeworx, Inc.) to E. Murphy (SEC) dated April 21, 2010 attaching *Tradeworx, Inc. Pub. Commentary On SEC Mkt. Structure Concept Release* at 8 (Apr. 21, 2010) (“Tradeworx Presentation”) (explaining, “For stocks that are extremely liquid, some market-makers may be willing to buy and sell at the same price; assuming they are able to hold positions for extremely short periods, there is minimal risk of adverse price movements. *Such market-makers are said to be operating rebate-capture strategies because their only compensation is the rebate offered by exchanges for posting orders.*”) (emphasis added); see also Sal L. Arnuk and Joseph Saluzzi, *Toxic Equity Trading Order Flow on Wall Street. The Real Force Behind the Explosion in Volume and Volatility*, at 2 (Dec. 2008), available at [http://www.themistrading.com/article\\_files/0000/0348/Toxic\\_Equity\\_Trading\\_on\\_Wall\\_Street\\_12-17-08.pdf](http://www.themistrading.com/article_files/0000/0348/Toxic_Equity_Trading_on_Wall_Street_12-17-08.pdf) (explaining that the provision of exchange liquidity rebates has “led to trading strategies solely designed to obtain the liquidity rebate.”).

43. In sum, the history of trading for rebates and the current HFT firms that rely on rebate trading clearly show that this is a lawful practice in the securities markets and not a violation of Section 10(b) of the Exchange Act, SEC Rule 10b-5, or the SRO's rules requiring "high standards of commercial honor and just and equitable principles of trade". The fact that Dr. Chen analogously sought to capitalize on the TLCs and make those a part of his over-all trading strategy would similarly not be considered illegal or manipulative under Section 10(b) or Rule 10b-5.

### **Dividend Trade Strategies in the Equities and Options Markets**

44. Another form of trading in the equities and options markets relevant to this analysis is a form of trading referred to as "ex-dividend arbitrage" or "dividend play trades." Jia Hao, Avner Kalay, and Stewart Mayhew, *Ex-dividend Arbitrage in Options Markets*, The Society for Financial Studies (May 21, 2009) ("Hao, Kalay and Mayhew") [Dr. Mayhew was Deputy Chief Economist of the SEC at the time the paper was published]. Pursuant to this strategy, registered market makers in the options markets attempt to capture corporate dividend payments when individual options traders leave deep-in-the-money call options unexercised on the day prior to a stock's ex-dividend date (the day before which a stock must be owned in order to earn a dividend). This strategy is not prohibited by the SEC.

45. To capture as much of the dividend as possible, two market makers trade deep-in-the-money call options back and forth with each other on the day prior to the ex-dividend date. "Because the two trades are exactly offsetting and executed at the same price, the initial position has zero risk and requires no capital." Hao, Kalay and Mayhew at 272. "Because the trades are exactly offsetting, dividend play trades create trading volume without adding any liquidity to the market." *Id.* at 282. The market makers then exercise all their long options positions so that they are left with a long stock position. In most cases, their corresponding short options positions will be assigned and the market makers will be required to deliver most of their long stocks.

46. Key to this strategy is the fact that the market makers will not be required to deliver *all* of their long stocks, because in some instances investors who are long the call options for the stock are not savvy enough to know that they should exercise their options in order to earn the dividends, or do not have enough money to buy the stock. This works to the benefit of the market makers, who rely on the fact that the Options Clearing Corporation ("OCC") randomly settles transactions when options are exercised, and if certain call options are unexercised there is a corresponding likelihood that investors who are short the calls will not be obligated to deliver the stock. Because the market makers hold such a large number of short calls, they manage to collect the dividend payment on the corresponding long stock positions. *See* International Securities Exchange ("ISE"), *Dividend Trade Strategies in the U.S. Options Industry White Paper*, (Mar. 2010).

47. Because the market makers are left with a long stock position that is fully hedged by their short deep-in-the-money calls, this strategy has little risk in a low volatility environment. This practice is so prevalent among market makers that it has led to a marked increase in options trading volume in the options industry. *See id.* at 8-9; Hao, Kalay and Mayhew at 272, 282-83. As explained by the ISE, "[a]lthough the U.S. equity options industry reported 3% growth in

2009 . . . this growth is solely attributable to an objectionable trading strategy called a ‘dividend trade.’” ISE, *Dividend Trade Strategies* at p. 2. According to ISE, “this strategy distort[s] market share with millions of contracts [and] also takes advantage of . . . individual options traders.” *Id.*

48. Despite these issues, the SEC has never forbidden these strategies and has no rules prohibiting these trades based solely on earning dividends. *Id.* at 10.

49. In fact, the SEC has approved the fee caps effectuated by the exchanges, without which these strategies would not be profitable. These fee caps encourage firms to enter into the simultaneous long and short positions necessary for this strategy. In particular, several options exchanges have set caps for market makers engaging in dividend capture strategies and have explicitly stated in adopting such caps that they are meant to facilitate these transactions. *See, e.g.,* Hao, Kalay and Mayhew at 271, 281, and n.6 (noting the fee caps and describing dividend arbitrage as a trading scheme that “inflates reported volume and distorts its traditional relations to liquidity”). Fee structures encouraging dividend play trading have been adopted, in each case with SEC approval, by the Pacific Exchange, the Philadelphia Stock Exchange, the American Stock Exchange, and the Chicago Board of Option Exchange. *Id.* at 281.

50. As noted by Hao, Kalay and Mayhew, “[t]he trading scheme inflates reported volume and distorts its traditional relations to liquidity. . . . [D]ividend play activity increases trading volume without increasing liquidity. Exchanges executing a large amount of dividend play trading volume might convey an incorrect impression to market participants about the level of liquidity available on that exchange.” *Id.* at 271, 295. Despite the impact of the trading on reported volume, the trades, which can be executed with “zero risk and . . . no capital,” are approved by the SEC. *Id.* at 272.

### **Manipulation and Wash Trading in the Securities Markets**

51. Courts considering manipulative behavior in the securities markets have identified certain hallmarks of manipulation which can be indicative of the existence of manipulative conduct. These include:

- trades that are done through fictitious names or nominees in order to hide their true ownership;
- an uneconomical trade is executed in one market or security to affect a price in another market or security;
- evidence that the trader knew or was reckless in not knowing that his actions might be harmful to the market or outright illegal;
- dissemination of false literature and/or false information about the bids, offers, price, or volume of trading of a security;
- attempts to dominate or control the market;

- the collapse of the market following the conclusion of the alleged manipulation;
- matched orders; and
- wash sales.

52. In the present case, none of the aforementioned hallmarks of manipulation is present. I understand the following facts to be true. Dr. Chen did not try to hide the trades or his trading strategies, and the trades did not adversely affect the price of any other market transactions. Further, there is no evidence that Dr. Chen or Powhatan knew or could have known that the trades were in any way harmful to the market or in any way illegal. The Up-to Congestion bids submitted by Dr. Chen did not lead to the dissemination of any false pricing or volume information. Nor did Dr. Chen attempt to dominate or control the market. The Up-to Congestion market did not collapse after these trades ended or suffer any adverse effects from these trades. Additionally, the Up-to Congestion Trades were not matched trades, because there was always a chance that one of the legs of the transactions would not be accepted.

53. Further, the trading at issue here was not wash trading, as that practice is understood in the securities markets. Prohibited wash trades are those transactions that involve nearly simultaneous purchase and sale of the same security for the same beneficial owner. Wash sales do not expose the trader to non-trivial market risk and, thus, have no legitimate economic foundation. They are effectuated with the intention of creating a false or misleading appearance of active trading in a particular security, usually to influence the price or volume of a security. Increased volume creates the appearance of demand and liquidity.

54. Wash traders do not profit from their wash trades—rather, they profit either through the subsequent change in the price of the security or through accruing some other, later benefit that is in some way tied in with the security. The “cost” of a wash trade to the trader is that he pays the transaction costs involved in making the trade.

55. In this case, my understanding about the facts surrounding the Up-to Congestion Transactions effectuated by Dr. Chen for Powhatan leads me to conclude, for several reasons, that they were not wash trades. One, they did not offset each other or reduce the risk of loss or gain to zero. When Dr. Chen entered bids for Up-to Congestion Transactions going to and from the same two locations, he incurred the risk that one of the transactions would not clear because the congestion could exceed the relevant cap. This exposed Powhatan to significant risk of loss and potential for gain. Further, the amount of the transmission loss credits was unknown at the time the bids were placed, and Powhatan ran the risk that the costs of the transaction would outweigh any potential credits.

56. Additionally, I understand that in many instances, Dr. Chen entered into Up-to Congestion Trades which did not have the maximum congestion limit, even though the chance of one leg getting rejected was greater when the congestion limit was set lower. This practice exposed Powhatan to increased risk of only one of the legs of the Up-to Congestion Transactions clearing – behavior that is contrary to trying to engage in wash transactions with no potential economic benefit.

57. Another important distinction is that Dr. Chen lacked the requisite scienter required to find an illegitimate wash trade. My understanding is that his trades were not effectuated for the purpose of creating any false or misleading impression of active trading or some other market activity, and there is no indication that he took any steps to hide his trading or continue it once he realized that questions were being raised about his trades. Further, the collection of TLCs was not the only purpose of his trades: he also hoped to profit from the transactions if one of the legs was rejected, as discussed above.

58. Dr. Chen effected the Up-to Congestion Transactions for a legitimate business purpose, and similar activity has been accepted as legitimate in the securities markets. An important case demonstrating this concept is one in which I was involved. In 2003, when I was the Vice President and Chief Counsel of the Market Regulation Department, NASD brought a case against Peter Kellogg for engaging in certain matched trades. *See* NASD Press Release, *NASD Charges Peter Kellogg with Fraudulent Wash and Matched Trades* (Nov. 5, 2003). NASD alleged that Mr. Kellogg had engaged in fraudulent wash and matched trades in August 2001 when he placed identical, simultaneous buy and sell orders between four accounts he controlled with the purpose of realizing non-taxed gains. There was no real change in the beneficial ownership of the securities at issue.

59. On August 6, 2004, the NASD announced that a Hearing Panel had dismissed NASD's complaint because the Hearing Panel found that "there was no evidence that Kellogg carried out the four transactions at issue with the intention to defraud, manipulate or deceive. Rather, the panel found that Kellogg conducted the transactions for legitimate business and tax purposes." *See* NASD Press Release, *NASD Hearing Panel Dismisses Complaint Against Peter R. Kellogg* (Aug. 6, 2004). FINRA does not make hearing panel decisions publicly available when charges are fully dismissed. However, NASD did release a redacted Order issued by a Hearing Panel that matches up with the Kellogg decision. *See* Dep't of Mkt. Regulation v. Kellogg, No. CMS030257, Disciplinary Proceeding (Aug. 6, 2004) ("Hearing Panel Decision"), *available at* 2004 NASD Discip. LEXIS 64.

60. In its decision, the Hearing Panel explicitly rejected the arguments that (1) matched orders are *per se* illegal, regardless of whether they are part of a broader wash sale scheme, and therefore do not require independent proof of scienter and that (2) even in the absence of manipulative intent, wash sales and matched orders are deceptive and operate as a fraud on the market. The Hearing Panel stated that these theories were "not consistent with the provisions of the Exchange Act or the case law arising thereunder." *Hearing Panel Decision*, at 9.

61. The Hearing Panel found that the trades were legitimate because they were done for a legitimate business purpose and could not be prohibited wash trades without scienter. It stated that "[r]espondent's trades were effected in good faith and did not come within the proscription [against wash trades] of § 9(a) [of the Exchange Act]. There were only four transactions in shares of an established company, and no evidence of any attempt or reason to manipulate the price of those shares, to induce anyone to trade in those shares, or to create the false or misleading appearance of market activity." *Id.* at 11-12.

62. Like Peter Kellogg, Dr. Chen engaged in transactions with a legitimate economic purpose, and without the intent of harming the market.

63. Wash sales that have a legitimate purpose do not violate the federal securities laws. This is the reasoned decision of the Kellogg Hearing Panel Decision. It is also the implied rationale in the SEC's rule-making surrounding the tape revenue rebates, tape shredding and dividend trading discussed above.

64. Finally, the transactions effectuated by Dr. Chen for Powhatan are distinguishable from wash sales in the equities markets because the Up-to Congestion Trades did not have the same external effects caused by wash sales in the equities markets. Wash sales in the equities markets almost inescapably result in external effects. The primary cause of these externalities is the dissemination to the public of price and volume information about the wash sales that is misleading because it results from non-competitively priced trades. Wash sales in the equities markets give the misleading impression of trading volume and interest in a security, and market participants rely on the disseminated information and allocate their resources accordingly.

65. In contrast, I understand that the bids entered by Dr. Chen for Powhatan did not result in similar external effects. Powhatan's increased trading volume did not adversely impact the day ahead or real-time market for electricity at the nodes involved. Further, these transactions did not deprive anyone of transmission loss credits to which they had any claim or right.

66. I therefore conclude that the transactions effectuated by Dr. Chen for Powhatan were neither manipulative nor wash trades as those terms are used or understood in the securities context.

UNITED STATES OF AMERICA  
BEFORE THE  
FEDERAL ENERGY REGULATORY COMMISSION

PJM Up-to Congestion Transactions )

Docket No. IN10-5-000

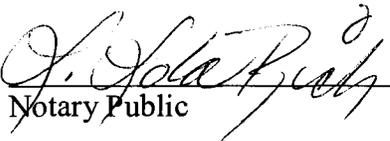
**AFFIDAVIT**

Richard G. Wallace, first being duly sworn on oath, deposes and says that the foregoing is his sworn affidavit in this proceeding and that the foregoing affidavit is true, correct, and complete to the best of his information, knowledge, and belief.

  
Richard G. Wallace

Subscribed and sworn to before me this 21<sup>ST</sup> day of October, 2011.



  
Notary Public

My Commission Expires:

MY COMMISSION EXPIRES:  
July 14, 2013