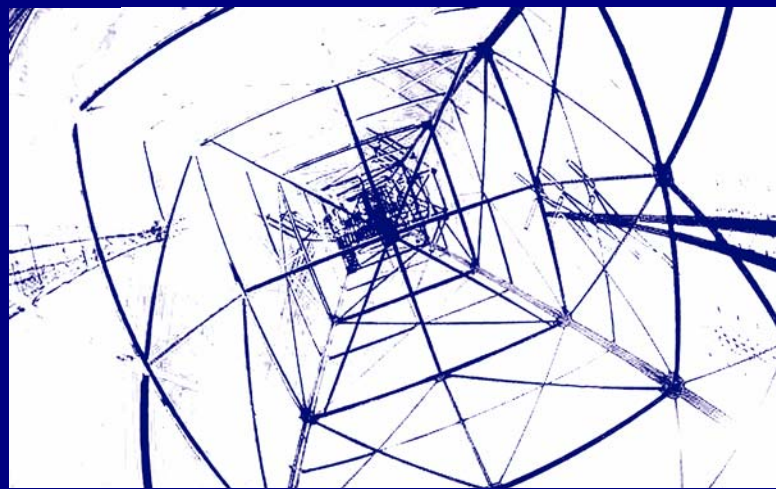




The National Regulatory Research Institute

**TRANSPARENCY,
COOPERATION
AND INNOVATION:
ELECTRICITY
MARKET
MONITORING
ISSUES FOR STATE
REGULATORS**



**TRANSPARENCY, COOPERATION AND INNOVATION:
ELECTRICITY MARKET MONITORING ISSUES FOR STATE REGULATORS**

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EXECUTIVE SUMMARY

Current practice indicates that regulatory oversight of the electricity markets is a necessity. For the regulatory monitoring of those markets to have the desired effects, the regulators must have enforcement authority to stop inappropriate market behaviors and correct undesirable market conditions. This report documents that needed market monitoring data is not sufficiently available to state regulators, and special efforts are being made by state regulators, system operators and the Federal Energy Regulatory Commission (FERC) to address that deficiency.

The electricity market monitoring concerns vary among the regions and states. A state with a restructured utility market has a strong interest in the robust development of competition in both the wholesale and retail markets. In a non-restructured state, the concern with competitive markets is naturally more focused on the wholesale market and its effect on the retail side. In both markets it is clear that there must be a “referee” with the tools to effectively monitor the market and the authority to enforce appropriate market behavior.

The current state of regulatory monitoring in the wholesale market is in need of improvement. There is a troublesome lack of sufficient and timely data. Most states do not have reasonable access to detailed timely data. Even FERC – the primary wholesale market authority – is probably in need of better data. Regulators who want to know – in time to stop a problem before it causes significant harm – when congestion is a result of real demand, supply and transmission issues and not intentionally and artificially created by market participants to game the system need to have access to real-time data.

The level and stability of retail electricity rates, whether or not they are in a restructured market, are strongly tied to the wholesale market. Consequently, market power abuse in wholesale markets is a concern for regulators overseeing retail markets. Monitoring the wholesale market and minimizing those abuses must be done collaboratively, given the inter-jurisdictional issues involved. Wholesale market analysis by states or regional state entities could serve as a great assistance to FERC in examining state/regional details that FERC may not have the time to focus on in its larger role. Arguments for denying or restricting the states’ access to detailed timely market data may not outweigh the harm to the markets that can occur when market participant behavior is not sufficiently monitored. *The seeds of cooperative wholesale market monitoring between FERC, Regional Transmission Organizations (RTOs) and the states can be found in a few places, but these are not adequate to assure reliable and effective wholesale market monitoring across all markets in the nation.*

Though much focus has been on the wholesale markets, monitoring the retail markets should not be overlooked. A new and important function of retail market monitoring is to assure that the retail consumers (whether or not in a state with open retail competition) are not placed at undue risk of harm from the operations of participants in the wholesale markets. Efforts such as detailed customer contact and

complaint tracking, trend analysis and consumer surveys can assist everyone in better understanding the conditions of the retail market and the viability of market competition. The report provides examples of how states have used the information mined from their retail market monitoring efforts to develop new rules and guidelines to improve the effectiveness of the markets and protect the customers from market misbehaviors.

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FOREWORD

The electricity markets – both wholesale and retail – are marked by significant variations between regions of the country, states within regions, and even areas within single states. It is appropriate and most probably inevitable that these variations will always exist to some degree. One thing that is constant across all the markets is the need for efficient market monitoring. The state public utility commissions are the historic vanguard of effective utility market monitoring for regulatory purposes. As the electricity markets continue to develop, the flow of market information must allow the states to continue to fulfill their duty to assure safe, reliable, and reasonably priced utility service. This report examines the current state of electricity market monitoring and highlights some of the concerns regarding the states' access to sufficient market information. The hope is that this report will assist state and federal regulators in developing an effective manner in which to share data and advanced the quality of the electricity markets.

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INTRODUCTION

In theory, regulation is a substitute for competition. However, even the most competitive markets represented on the trading exchanges are still subject to market regulation. The information and market data collection and submission processes required by Wall Street regulators are intended to assure the efficient operation of the marketplace and the fair operation of the market participants trading in that marketplace. The electricity marketplace is increasingly similar to the commodities and securities trading marketplaces. To ensure the efficient operation of the electricity trading marketplace and the non-abusive and non-manipulative behavior of the market participants, market regulators must monitor the real-time detailed information of the marketplace operations and review specific information regarding the individual market participants.

Monitoring of the retail markets is a responsibility almost exclusively handled by state utility commissions. That experience should serve as a base for the development and improvement of the wholesale market monitoring system. While no one seems to dispute the necessity for regulators to monitor the wholesale electricity markets, what and how the regulatory entities should be monitoring the wholesale markets is the subject of much debate. This report examines the state of wholesale electricity market monitoring and its on-going development. The primary issue is the access to timely detailed wholesale market data by state utility commissions or regional state entities. Most state utility commissions today do not have regular access to all the operation and trading data of the wholesale electricity markets. There are a number of endeavors underway that might be the basis for satisfactory resolution of this issue. Among those endeavors is a trial underway at the Federal Energy Regulatory Commission (FERC) to release reports to states, a western multi-state effort to develop an independent market monitor, and a proposal by PJM Interconnection (PJM) to share confidential market data with states.

MARKET MONITORING AND ENFORCEMENT

The Need for Data

Regulators who want to know when congestion is a result of real demand, supply and transmission issues and not intentionally and artificially created by market participants to game the system need to have access to real-time data. To stop and prevent anticompetitive behavior and/or correct market conditions, market monitors must have timely, detailed data to quickly identify possible offenders and/or suspected market problems. Without the necessary data, it is impossible to investigate let alone stop potential market power abuses. Unfortunately, not even FERC appears to currently have all the information necessary to proactively monitor the nation's wholesale energy markets. In a June 2003 report, the United States General Accounting Office (GAO) found that "no federal agency, including FERC, has access to complete and timely information on electricity markets and market participants."¹ One example the GAO highlights is FERC's lack of access to complete and timely information on the operation of electricity generation plants, even though such information is generally believed to be important to monitor and evaluate the behavior of generating companies.² In its "State of the Markets" report, the FERC staff discusses the limitations in gathering data that they encountered.³ Even the information that FERC is able to collect is problematic in that it is not always timely. Much of the information that FERC gathers is through forms and surveys. There is typically a significant time difference between the reporting periods of the information collected and when the reported information is submitted to FERC. Thus the information collected is of reduced value as a tool for swiftly identifying and correcting market misbehaviors before those behaviors do serious damage to the market.

¹ United States General Accounting Office (GAO), "Action Needed to Address Emerging Gaps in Federal Information Collection", Report to Congressional Requesters. GAO-03-586 Electricity Restructuring: June 2003, p. 3.

² United States GAO, "Action Needed to Address Emerging Gaps in Federal Information Collection", Report to Congressional Requesters. GAO-03-586 Electricity Restructuring; June 2003, p. 3.

³ "State of the Markets Report Assessment of energy markets for the period Jan. 1, 2002 through June 30, 2003", Staff Report, the Federal Energy Regulatory Commission (FERC), Office of Market Oversight and Investigations (OMOI). Docket MO4-2-000, March 2004, p. 20, 40.

Without sufficient and timely data, regulators cannot hope to control abuses like unwarranted hockey stick pricing. Hockey stick pricing is when suppliers offer a percentage of a given supply at one rate but the final percentage at a greatly inflated rate. For example, to answer a demand of 500 megawatt (MW) the first 400 MW might sell at \$100 per MW, and the remaining 100 MW at \$10,000 per MW. If there is a direct correlation to a real issue of demand, supply, and/or transmission, then higher prices might be an acceptable result in a competitive market. However, maleficent market participants can artificially create the conditions that might otherwise justify these types of radical price spikes.

Withholding supply, manufacturing demand or feigning congestion with the primary intent of manipulating prices are inappropriate behaviors. But unlike hockey with a referee, there are no swift trips to a penalty box. If regulators cannot verify that the last 100 MW does not have a legitimate market reason to be higher than the first 400 MW, some market participants are going to be more likely to engage in these types of behaviors. On the other hand, if a regulator has a detailed real-time picture of the generation, transmission, load, and corresponding trading information in the market, then claims of high-cost, congestion, necessary withholding or supply shortages can be more closely examined.

The development of more regular data definition and collection processes would allow for such questionable actions to be scrutinized by high-powered regulatory microscopes. In the hockey stick pricing example, this would not necessarily be regulating generation, but merely exposing the generation markets' operations to regulators. Likewise, if a greatly inflated price is blamed on congestion, without actual real-time data, regulators have few, if any, immediate options but to accept the claim. With a more transparent market, regulators can begin to scrutinize claims of congestion and diminish incentives for market participants to manufacture congestion to manipulate the market prices.

TABLE 1
MARKET DATA NECESSARY TO EFFECTIVELY MONITOR THE MARKET

Transmission	Load	Generation	Market
Scheduling	Who	Who owns what	Bidders
Congestion auctions	When	What units are operational	Quantity/price bids
Detail of congestion costs	Where	Actual generation outputs	Successful bids
Grid constraint data	How much	Balancing market data	Blocked bids
Forecasts	Forecasts	Outages and withholdings data	Ancillary services data

Source: Authors' construct

Table 1 lists some of the categories of current market data that a market monitor would likely need to identify, correct, and/or prevent market problems in near real-time. Detailed information on the transmission grid, generation and generators, load profiles, and bidder market activity is necessary to spot actual market anomalies and concerns and then to identify the causes or market participants responsible for those anomalies.

There appears to be widespread agreement that some form of oversight and market monitoring is a necessity for the wholesale electricity markets. There is debate on what entity or entities should have market monitoring authority and access to market data. In states and regions without operating RTOs, the utilities and/or power pools generally oversee the operation of the regional grid. In regions with operational RTOs, the RTO is a market monitor. FERC has primary jurisdiction over the interstate wholesale electric market and thus for most of the nation's wholesale markets is the primary market regulator regardless of what entity actually performs the day-to-day market monitoring.⁴ Regardless of the jurisdiction of any electricity wholesale market, the state regulatory commissions have a very real interest and important role to play in electricity market monitoring.

⁴ Wholesale electric sales and transmission in Alaska, Hawaii, and the Electric Reliability Council of Texas portion of Texas are intrastate commerce and, therefore, generally do not fall within FERC's jurisdiction.

Very often wholesale electricity is a necessary input for the retail service.⁵ Wholesale costs place upward pressure on the costs of the proceeding buyers, and generally create increasing pressures down the chain of consumption. State regulators have an understandably acute interest in the fair and efficient operation of the wholesale market. Currently, most state utility commissions do not have sufficient access to detailed current wholesale market data. Why do state regulators not have the data necessary to do real-time effective market monitoring? The major point of debate seems to be regulator access to and/or public exposure of data that includes identifying details about individual market participants and their operations in the wholesale market. Generators are reluctant to provide real-time data and explanations of their generation units' operations. RTOs and market bidders do not want to release real-time bid data in an identifying manner. Market participants claim that releasing these types of data will harm positions in the marketplace by exposing competitive operations, strategies and valuations to other market competitors. The RTOs might argue that they do not want to release the market data for fear that such information could enhance the market participants' ability to manipulate the market, through actions such as collusion.

The market participants argue that even if regulators (especially state regulators) desire to maintain the confidentiality of data, they often cannot do so because of sunshine and/or public records provisions in the state laws. This concern also arises with regard to the sharing of data collected by a federal agency with a state agency. From a market participant or operators perspective, it is not clear why there is so much resistance to creating more transparency in the marketplace as a transparent market improves the competitive nature of the market.⁶

State Wholesale Market Monitoring

Regardless of the actual jurisdiction, state commissions should be welcomed into the wholesale market monitoring endeavor simply in recognition of the benefit and

⁵ Perhaps in the case of a fully integrated utility, the utility might rely entirely on its own generation to supply electricity to meet its demand, but as demand continues to escalate and the wholesale market continues to expand this case is more and more unlikely.

⁶ "State of the Markets Report Assessment of energy markets for the period Jan. 1, 2002 through June 30, 2003", Staff Report, FERC, OMOI. Docket MO4-2-000. March 2004, p. 67.

workforce they can contribute. Without delving into the jurisdictional discussion of wholesale market monitoring, for this analysis we assumed that state commissions do have authority and good cause to examine wholesale market operations.

Currently, there are four basic models of state efforts in wholesale electricity market monitoring:

1. **No direct active monitoring:** A state follows the reports and findings of FERC and/or the RTO, but devotes no specific resources to regular active collection of data and monitoring of detailed wholesale market operations
2. **Full active monitoring:** Either individually, or as part of a regional state entity, the states devote specific resources to regular active collection of data and monitoring of detailed wholesale market operations. The western states model (discussed below) is one example.
3. **Concurrent monitoring:** With direct regulation of the RTO or in collaboration with the RTO, the state devotes specific resources to regular, active collection of data and monitoring of detailed wholesale market operations. The Texas Public Utilities Commission (TPUC) with its direct oversight of Electric Reliability Council of Texas is one example. The New York Public Service Commission, which monitors the market along side of the New York Independent System Operator (NYISO), is another example.
4. **Monitoring by request:** States may acquire desired market data for analysis from the RTO by specific request. The proposed PJM process depicts this model.

All of these models may be appropriate for some states, and for other states none of these models may be exactly as needed. When a state considers what role it should have in monitoring the wholesale market, there are several issues to address.

Resources

A state commission must, of course, consider its available resources. Monitoring the daily operations of the wholesale electric market, even if limited to only the market

affecting the state, is a major task. Consider for example that the PJM regional market includes more than 500 generating units that might participate in numerous auctions across any number of pricing nodes. When this breadth is overlaid across the many categories of data necessary to monitor any market, as detailed above in Table 1, it is easy to see that detailed monitoring of the wholesale market would require a significant resource commitment. For the few states with single-state markets or, RTOs, the data set may be manageable. The majority of the states have utilities that operate in multi-state markets and/or belong to multi-state RTOs. This may increase the relevant amount of market data many fold.

A state commission is forced to weigh the benefits of having its own independent analysis of the relevant wholesale market against the costs of dedicating limited resources to the task. One way that state commission might improve the cost/benefit ratio is to share the market monitoring task for a region with other states in the region.

Real-Time Versus Historic Market Data

“Monitoring” is generally considered to be an active real-time process of keeping track of something. In order to keep track of the wholesale electric market in real- or near real-time, the state would have to have access to the real-time market operations data. Regulators that desire to maintain market discipline, correct anomalies, and address offenses quickly must engage in real-time market monitoring. One cost of real-time data is the significant commitment of resources to examine the data. Another cost, as discussed below, could be the market damage that might occur if the state commission is unable to maintain the confidentiality of sensitive market information. Real-time access to and analysis of market data is not as important if regulators’ primary intent is to ultimately attempt to prosecute market offenders and seek to disgorge ill-gotten gains or other recovery for damages. Both enforcement approaches have pros and cons, and neither is singularly sufficient in all cases. A state must examine whether the benefits of attempting to quickly address market concerns and offenses and reduce damages are outweighed by the costs of receiving and analyzing real-time market data.

CONFIDENTIAL MARKET DATA

To examine market operations access to market data is necessary. The timeliness and detail of the market analysis can only be as timely and detailed as the examined data. Highly aggregated data may provide an accurate picture of the market as a whole, but it cannot provide a picture of individual market participant behavior. Without such a picture, regulators cannot identify and correct inappropriate participant behavior. However, market participants consider much of the detailed information confidential and fear release of the information could harm their status in the market. Many market participants and RTOs are reluctant to provide confidential information to state regulators fearing that state.

State Treatment of Confidential Data

The arguments that state commissions should not be allowed to collect confidential information due to the potential of competitive harm are not new. Utilities have been making these arguments before state and federal authorities for years. State public records laws are waved about as the proof that state commissions should not handle confidential information. Yet little, if any, evidence exists that demonstrates actual unwarranted market harm from state commissions handling of confidential information. State public records requirements are not sufficient cause to bar states from access to vital wholesale market information.

Many states have historic and well-tested procedures in place to formally protect confidential and/or trade secret information. The application of these procedures eliminates or, at least, significantly mitigates any potential for harm from the release of confidential information. Even if a state commission is compelled to publicly release a record that has been claimed to be confidential, harm cannot be presupposed. For example, a state commission could find that a particular type or set of data from an RTO market monitoring unit (MMU) is competitively sensitive and therefore should be afforded confidential treatment. Following that finding, regular submissions of that type from the MMU to the commission could be treated as confidential. If and when the notion of confidentiality was successfully challenged, a process would likely ensue by

which the commission would reconsider that confidentiality. If the commission then finds (or is ordered) to release the data, sufficient time would have passed to eliminate the potential competitive value in that information. In a market that trades as often as the wholesale electricity market does, one must consider that the value of the trading information diminishes rapidly with time.

FERC Treatment of Confidential Data

For this report, FERC staff helpfully discussed how FERC handles confidential information. FERC is making an effort to find ways to share information and data it receives with state regulatory commissions and others without violating copyright laws or compromising the economic well being of individual companies. FERC uses four types of information in its internal operations. The first is information that is generally available, either through public sources or through trade press publications, which can be readily purchased for a fee from the publisher. This type of information is considered “non-confidential,” although FERC may believe there are copyright law restrictions that limit its ability to disseminate the information it routinely collects. All other information that FERC uses is “confidential” to some degree. Generally, this confidential information falls into three broad categories:

1. Information that involves details about energy infrastructure and is considered to be of a security sensitive nature. The exact locations of certain facilities, for example, would fall under this category. Security information is only available to in-house specialists, or in limited circumstances to specialists in other agencies
2. Information developed through an investigation or received through FERC’s hotline or complaint process. This material is not public. It may only be shared with other agencies that are also investigating the same or similar issue on a case-by-case basis
3. Data that can be made available to the public only on a time-lag basis. Most of this information is made available in aggregated form, although some may be disaggregated

FERC produces one report quarterly that it makes publicly available. It is referred to as the “EQR,” or *Electric Quarterly Report*. The EQR is a compilation of information that companies file at FERC, and information can be reviewed company-by-company with a time lag of a minimum of 30 days.

Confidential data that the FERC Office of Market Oversight and Investigations (OMOI) gathers is used to advise FERC on the industries it regulates. The internal reports use and analyze public and semi-public data and are only provided to FERC commissioners and senior staff. A redacted version of what is given to the FERC commissioners, OMOI’s “Energy Market Snapshot,” is sent to selected recipients. These include the MMUs and through a pilot program, state regulators in four selected states and all the New England states. These briefings for state regulators are part of a test program at FERC and are otherwise not available to the general public. The redacted reports contain only fact-based data. The reports do not contain FERC recommendations or statements of possible actions.

FERC’s pilot program to share OMOI briefings with state regulators is a positive step. These briefings may constitute a basis which states could use to maintain awareness of the wholesale market conditions relevant to their state interests without having to actually devote significant (and perhaps duplicative) resources to seeking and analyzing raw data. Access to these redacted time-delayed briefings would be inadequate for a state or regional state entity that sought to engage in actual detailed analysis of the current market data. To the degree these results and reports could be specific to the state, the value of the results and reports would be increased for the states.

A PRELIMINARY ATTEMPT TO EXAMINE THE MARKET USING AVAILABLE DATA

In the final months of 2003, the authors conducted an evaluation of publicly available data that might be considered directly relevant to market monitoring issues. The evaluation was an attempt to isolate market behaviors and identify signs of market power abuse, arbitrage and/or other intra-regional gaming strategies, using a limited set of data resources. Our evaluation specifically avoided private, restricted, or subscription-based data. Since so many state commissions already have burdened budgets, and RTOs and market participants make repeated claims that they cannot make detailed timely data available due to competitive sensitivity, the intent was to ascertain what useful information could be developed using only free, publicly available data.

Data was sought from several RTOs and regions. In addition to actual bid offer data, we also sought data that would allow estimation of costs. In some regions we were unable to readily locate any publicly available detailed information about wholesale offers into the electricity market. Having no data in a given market creates an absolute barrier to analysis of that market. In areas where data was ascertainable, there were several problems discovered with the data that made analysis of market gaming and arbitrage difficult and drawing company specific conclusions about market behavior impossible. Key problems include the time delay and the highly aggregated format of the data. A lesser issue was the necessity to gather data from many sources in order to create just one complete and detailed picture. Even for an RTO data set, it was necessary to use multiple sources: one to acquire load forecasts, a few more for offer prices for generation and ancillary services, and still others for congestion information. This was a very resource-intensive task, even before addressing the concerns that arise when attempting to merge data from different sources. Though others may have done all these tasks in the past for research, academic or prosecution purposes, those efforts likely covered specific time frames, under static and known conditions without highly restrictive timeframes. These are luxuries that are not afforded to regulatory commissions that must be aware of the real-time operations of the market in order to stop and prevent market-abusing behavior.

The Energy Information Agency (of the United States Department of Energy) makes some fuel source data available on its web site. This information is in aggregated form. To make this data useful in determining cost per MW in a given state or region takes several transformations, requiring knowledge of individual generator heat rates as well as the existence of long-term fuel contracts. The best estimates that could be calculated were upper bounds of expected cost. While there are several for-fee databases available on the market that provide prices for gas and coal at various gateways, free publicly available data on these items is not so readily available. Some data is available from the website "www.econstats.com." Our analysis looked at price data at New York, Chicago and Henry Hub. Compounding the problem is the fact that regions also aggregate import data. Without an idea of what units and companies are sending electricity in from the outside, it is impossible to determine what owners and units might be arbitraging the system. In order to do such an analysis for ISO-New England, for example, one would need all the bid data in NYISO, PJM and Canada, at a minimum.

Delayed data is another significant issue. Part of the evaluation of available data included trying to compile a fuel curve for a given region. This is a major task. For example, PJM has between 450 and 500 generators in the market at any given time. Unfortunately, the task is probably meaningless when the difference between the time represented in the data and the time of the analysis is considered. The RTO data is, at best, released to the public on a multi-month delay. That is to say, data released "today" was collected months ago. Consequently, even if conclusions could be drawn from the aggregated data, the time-delay probably means any market harm has already occurred to a significant level. The time-lagged data problem is only exacerbated by the time necessary to perform a meaningful analysis once the data is obtained. Real-time data is necessary to monitor the market if the goal is to identify, stop and prevent market abuses as quickly as possible.

Our analysis included attempts to perform tasks that a state would likely need to do in order to effectively examine the operations of the wholesale market. Our goal was not to produce quantifiable and reportable results, but to determine if these tests and analyses could reasonably be carried out by a state commission with the current state

of the freely available data. To the degree the data could be mined, the aggregation and time lag of the data made it impossible to perform an analysis in a manner and time that would allow a regulatory entity to efficiently isolate or measure specific company market power abuse, anticompetitive arbitrage, and/or other gaming strategies. Our analysis indicated that using only the free data that can currently be gleaned from the RTOs and other sources, a state commission could not reasonably and effectively monitor the wholesale market. There are, of course, certain for-fee services that might be able to provide regulators with adequate market insight; however, such an approach may present a number of difficulties.

STATE WHOLESALE MARKET MONITORING DEVELOPMENTS

Western Model

Some of the western states have created one model that other states and regions could consider for wholesale market monitoring. In July 2003, the signatory states and FERC's OMOI entered into a signed "Statement of Shared Understanding and Purpose" whereby the joint efforts of the parties will facilitate "a strong independent interconnection-wide wholesale market monitoring capability."⁷ This agreement shows how states with varying utility markets can work together with the OMOI and RTO MMUs to meet agreed upon needs. The signatories include states that have restructured, those that had begun to restructure and subsequently delayed the process, and those states that have taken no formal steps to restructure.

The Washington Utilities and Transportation Commission, noted on its signature page of the agreement that such an agreement to share information, work together and accomplish effective monitoring of the wholesale power market does not in itself automatically require the formation of a new "institutional entity," or demonstrate the need to combine the function of collecting market information in a single entity with the functions of policing and mitigating market problems.

In his review of this early Seams Steering Group-Western Interconnection market-monitoring proposal,⁸ Commissioner Carl Wood of the California Public Utilities Commission identified four concerns. While his statement addresses the specific proposal, it identifies key concerns that should be addressed whenever the formation of a regional-state market monitoring effort is being considered:

⁷ "Western States – FERC (Office of Market Oversight and Investigations (OMOI)) Shared Statement of Understanding and Purpose." Signed between July 22, 2003 and July 27, 2003 by OMOI, Idaho Public Utilities Commission, Montana Public Service Commission, Montana Consumer Counsel, Oregon Public Utility Commission, Utah Public Service Commission, Washington Utilities and Transportation Commission, Wyoming Public Service Commission, and Wyoming Office of Consumer Advocate.

⁸ Seams Steering Group-Western Interconnection Market Monitoring Work Group, West-Wide Market Monitoring Recommendations, Oct. 17, 2003 draft proposal.

1. **Role of the West Wide Market Monitor.** Any west-wide group should have a limited role in monitoring the western markets. The west-wide market monitor should ensure an effective level of data transfer across ISO/RTOs and only examine seams issues between RTO/ISOs without undermining or duplicating roles and activities of local RTO/ISO market monitors and the Market Surveillance Committee. Without appropriate limits, a west-wide market monitor might become an overarching entity attempting to dictate local market monitoring efforts.
2. **Costs–Benefits.** A west-wide Market Monitor should not be such a large organization that its costs outweigh its benefits. Ratepayers throughout the western states may also pay for individual RTO/ISO market monitors and such local monitoring activity will directly help local ratepayers. Redundant programs might ultimately raise costs to ratepayers.
3. **Corporate Structure.** A west-wide market monitor should be an independent, not-for-profit organization which is accountable to state regulatory and oversight agencies.
4. **State Access to Data.** State regulatory and oversight agencies should have full access to all data that is available to a west-wide market monitor and any local RTO/ISO. State regulatory and oversight agencies have ongoing regulatory responsibilities that provide them with an obligation, and thus a legitimate interest, to be fully informed of market, system, reliability, and related conditions in their respective states. States should have complete access to any market data available through FERC’s Office of Market Oversight and Investigation. Without state input, a west-wide Market Monitor may not fully address ratepayer concerns.⁹

According to a draft of a recommendations proposal, the market monitoring entity formed by this process would provide independent review of market performance,

⁹ Oct. 30, 2003 letter from Commissioner Carl Wood, California Public Utilities Commission, to Committee on Regional Electric Power Cooperation Members.

market power issues and market design associated with transactions among West-wide markets. The market monitor would report results of its monitoring and investigations and provide recommendations on market performance and market design issues to FERC, western RTOs and other appropriate regulatory entities.¹⁰

Specifically regarding the sharing of confidential data, the draft recommendations provided that the market monitoring entity would have timely access to any information possessed by the Western RTOs. The proposal suggested an initial process whereby the market monitor and the RTOs would decide what information should be provided as a matter of course. The market monitor would also have the ability to get any desired additional information from the market participants.

The working group addressed issues involving access to confidential data. The group appears to have recognized that the new market and regulatory environment demand information disclosure, but seemed to also conclude that the parties possess enough discretion to handle the information in a manner that is sensitive to the potential competitive value of the information.

PJM Model

In response to a request from FERC commissioners and state commissions, PJM initiated a process to develop a nondisclosure agreement that would enable PJM to provide state commissions' access to confidential information while still preserving the confidentiality of the information. In that process, PJM set forth a set of principles to guide the development of amendments to the existing provisions of the PJM Open Access Tariff and Operating Agreement. These principles included the concept that the provisions "should permit the broadest possible access to PJM confidential data by state public utility commissions or regional state committees."¹¹ Following the conclusion of the collaborative process with state commissions and internal PJM review

¹⁰SOG-WI Market Monitoring Work Group, West-Wide Market Monitoring Recommendations Oct. 17, 2003 draft proposal.

¹¹ PJM letter to FERC dated Dec. 24, 2003. Filed in FERC case Docket no. RM01-12-000, "*Remedying Undue Discrimination through Open Access Transmission Service and Standard Electricity Market Design*".

and revisions of the proposal, PJM filed its proposed amendments with FERC in April 2004. On June 28, 2004 FERC approved the proposed revisions with some minor modifications.¹²

Ultimately, states need a mechanism by which they can obtain any information or data required for their regulatory purposes in a timely manner. As several PJM states clearly stated at the FERC August 2003 technical conference on PJM issues, providing states with rapid access to detailed wholesale market data is important for the benefit of both the wholesale and retail electricity markets.¹³ The PJM model and collaborative process that lead to it are a step in the right direction. This positive step was endorsed by the supportive comments of some of the PJM regional state commissions (the District of Columbia Public Service Commission, the Maryland Public Service Commission, the New Jersey Board of Public Utilities, the Public Utilities Commission of Ohio (PUCO) and the Pennsylvania Public Utility Commission).¹⁴

However, not all the PJM states universally endorsed the proposal. Illinois and Delaware both raised important specific concerns with the proposed tariff revisions¹⁵. While the PJM proposal is clearly the result of earnest collaboration and compromise between the stakeholders and will likely improve the wholesale market monitoring picture, the new process to share confidential data is not ideal. The language of the PJM proposal gives states access to current confidential market data necessary to track the operations of the relevant specifics of the wholesale market. However, the request and response process and discussion restrictions are complex. Additionally, the process timelines can be quite lengthy if there are objections to the data requests. Delays in the receipt and review of current market data will significantly diminish the value of the data for use in quickly assessing and addressing market issues.

¹² Federal Energy Regulatory Commission, “*Order Accepting Tariff Revisions Subject to Modification*”, Docket no. ER04-776-000, Filed June 28, 2004.

¹³ FERC PJM Technical Conference with States and Market Participants, Wilmington, Delaware, Aug. 28, 2003. Transcript at <http://www.ferc.gov/EventCalendar/Files/20030912165430-8-28-03-transcript.pdf>

¹⁴ *PJM Interconnection, L.L.C.*, ER04-776-000; Revised Comments of the PJM regional state commissions, June 4, 2004.

¹⁵ See Illinois Commerce Commission, “*Protest of the Illinois Commerce Commission*”, FERC Docket No. ER04-776, Filed May 26, 2004, and Delaware Public Service Commission, “*Motion to File Supplemental Comments*” FERC Docket No. ER04-776, filed June 25, 2004.

The PJM amendments are a good *first* step toward providing states with the “broadest possible” access to market data. A continuation and expansion of the state, federal, market participant collaborative might focus more on simplifying the process of sharing confidential data with the states. The sharing of real-time granular data, such as all actual bids and bidder identifications through a simple, rapid, or perhaps even automatic process, may require additional special arrangements between FERC, the RTO MMUs and the states. These additional arrangements, where needed, can certainly be accomplished through open collaboration. Regulators have always had to deal with sensitive and confidential information. The PJM model might be the basis for the establishment of data access rules that do provide states with the “broadest possible” access to necessary market data. The beginning of the wholesale electricity market and its close relationship to state retail markets has created a new need for federal and state regulators to find a way to share necessary confidential information.

WHOLESALE ABUSE LEADS TO RETAIL INJURY

The level and stability of retail electricity rates are strongly tied to the wholesale market. Consequently, market power abuse in wholesale markets is a concern for regulators overseeing retail markets. The electricity market is historically a vertically integrated market. Recent restructuring activities have lessened the integration in some markets, but with affiliate relationships, recent acquisitions of new generation marketers by incumbent utilities and the large number of states that have not restructured, vertical integration is still a significant factor. Pricing inefficiencies in the wholesale market are eventually translated to the retail market. If a firm has monopoly power in the wholesale market, and it is integrated into the retail market, then this firm is better positioned to absorb an increase in wholesale prices than a firm that is not in both the wholesale and retail markets. The power of integration is a definite reality when markets are neither fully regulated nor subject to broad competitive market forces. Other avenues of integration that market participants might use or abuse to their advantage include transmission and gas pipelines.

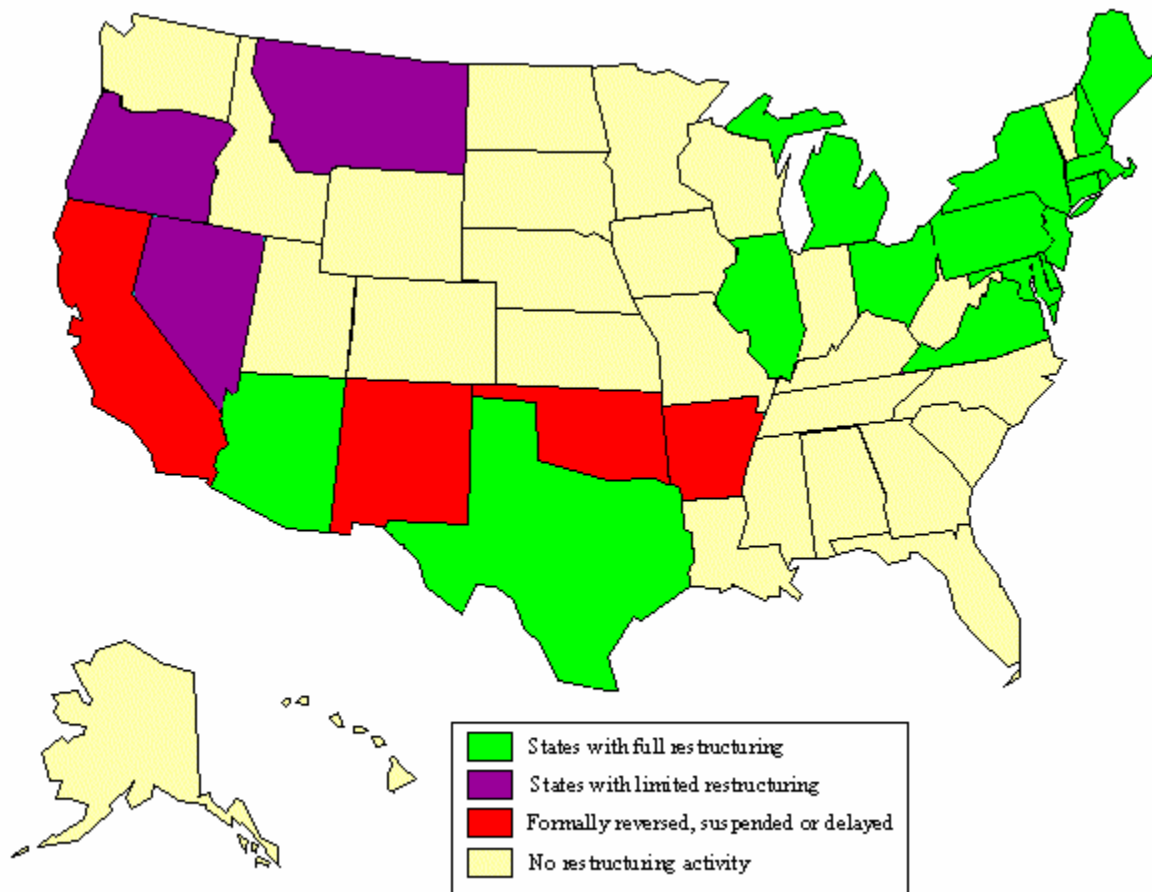
RETAIL MARKETS

Most recently, the term “market monitoring” in an electricity market context is usually a reference to the wholesale electricity market. The stakes in the wholesale market are very high and attention to the improvement of wholesale market monitoring is of paramount importance. However, retail electricity markets, whether or not they are competitive, also require market monitoring. This section briefly examines retail electricity markets and the importance of mining market data to assure that the market is operating as well as possible and that retail customers are not harmed by the practices of retail and wholesale market participants.

The Link between Wholesale and Retail Markets

Some observers have blamed the lack of a fully functioning wholesale market on the lack of fully functioning competitive retail markets in all the states. The attempt to label effective retail market competition as a prerequisite for effective wholesale market competition is not persuasive. While it is true that effective competitive wholesale and retail markets can support and complement each other, it cannot be assumed that wholesale market development *first* requires a good competitive retail market. The opening of a wholesale market was contemplated and initiated well before the first realistic hint of creating competitive retail electricity markets. Utilities have been buying power on the wholesale market for many years, and there is no reason to assume that the wholesale market cannot become more competitive whether or not retail markets are opened to competition.

Figure 3 below shows where retail electricity markets have been restructured in the United States. If the states that have not yet implemented electricity restructuring never do so, the wholesale market can survive and flourish, as long as the regulators keep a check on inappropriate wholesale market behaviors.



Source: NRRl, 2003.

Fig. 1. Markets restructured in the United States.

However, the converse may not be so true. Competitive retail market performance and development are dependent on prices in the wholesale market. Retail prices, whether or not they are in a restructured market, are ultimately affected by wholesale prices. Therefore, wholesale market abuses are a concern of all states. In Texas, where the state directly regulates the wholesale market, the TPUC recently adopted a new wholesale electricity market enforcement rule. The rule was designed to protect wholesale and retail customers during the continuing development of the electricity markets. The rule seeks to improve operational efficiency, ensure reliability and maintain reasonable prices in the wholesale market. It established new monitoring, enforcement and market behavior standards for the wholesale electricity market, and a TPUC process for an expedited review of market participant activities. The new rule

delineated specific prohibited activities such as creating artificial congestion, pre-arranged offsetting or "wash" trades, collusion, manipulating prices or power supplies, withholding production, misrepresentation and other behavior harmful to the wholesale market. The rule increases the commission's ability to protect Texas customers and market participants from unfair, misleading and deceptive practices in the wholesale market, which can affect the retail market. TPUC Chairman Paul Hudson said, "This rule adds a hammer to the PUC toolbox to prevent and address inappropriate market activity."¹⁶ Though other states may not have the same jurisdictional capabilities, the action in Texas can be indicative of similar concerns in other states and should be informative to FERC.

Sources of Retail Market Data

Whether or not a state chooses to directly monitor the wholesale functions of the market, it is likely to monitor the developments and participant behaviors of the retail market. Indeed, every state is engaging in retail market monitoring to some degree. As with wholesale market monitoring, the adequacy of resources is a concern. Full-scale monitoring of the retail market, especially a market open to competition, is a resource-intensive proposition.

Customer Contacts and Complaints

Customer contacts and/or complaints (hereinafter "contacts") are a source of information on which to base understanding of the conditions of the retail electricity market. The contacts can provide a unique view of the market conditions, consumer behavior and company practices. Commissions are well experienced in receiving and handling customer contacts. Beyond resolution of individual customer complaints, some commissions actively monitor contacts for trends and indicators that assist them in developing and enforcing rules and regulations. In discussions with consumer affairs

¹⁶ Texas Public Utilities Commission (TPUC), Press Release, "PUC Sets Electricity Enforcement Guidelines", Feb. 18, 2004

staff members at several state commissions, we found that those states that specifically mine the information collected from individual consumer contacts for trends, market indicators and policy concerns were able to directly correlate the creation of regulatory policy, rules and requirements to the results of those data mining efforts. In many states, as utility markets began to open to competition, the commission's role of enforcement began to move up on the priority list, often surpassing the role of rate making.

To tap the larger value in consumer contact tracking and maximize its understanding of the retail market, some commissions not only deal with the individual customer issue, but also log, track and analyze those contacts and trends over time. Contact trend analysis may be the best (and perhaps the only) method of identifying subtle market behavior issues such as "win-back" scenario abuse, misleading/deceptive consumer marketing and customer service issues. Depending on the volume of contacts and the range of topics, trend analysis and market behavior determination can take a significant amount of time. Among the state commissions that are devoting specific resources to consumer contact trend analysis, some have applied commission staff to the task and others have engaged outside assistance from academic institutions and/or commercial research entities.

Customer Migration

If a state commission is interested not only in preventing inappropriate market behavior but also promoting further market development, it is important for the commission to stay on top of items such as customer service provided by new marketers. If a market develops a quick reputation of "switch and be sorry," it becomes difficult to further develop and sustain the market, even if there are quality-oriented providers trying to participate. Another source of important information is customer migration numbers and patterns. Lack of migration in a market with multiple available alternatives may be an indicator that there are barriers to switching that should be examined. The lack of migration in and of itself is not indicative of market power abuse, but it can be an excellent trigger to notify a state that additional investigation is warranted.

Market Surveys

Where customer contacts, complaint and migration tracking will not produce adequate market information in a timely manner, a commission may consider other tools for monitoring the retail market. Foremost among those other tools may be the consumer survey. Well-designed and administered consumer surveys can quickly identify key market issues. Customer awareness of choice is one of those issues that can be readily examined by a well-designed consumer survey. For example, the Consumer Utility Benchmark Survey conducted by the NRRI in 2003 indicated that a significant number of consumers were unaware of whether or not retail electricity choice was available to them. Other issues such as migration patterns, switchback statistics, and value assessments are also variables that can be readily assessed through the use of well-designed consumer surveys.

Retail Market Monitoring in Action

There are several examples of states that have used the products of their retail market monitoring to advance their public policy goals. We offer the two brief references of Ohio and Texas as good representations of state efforts.

The PUCO is one commission that has used the results of its constant detailed analysis of consumer contacts and behavior to closely direct the development of its minimum services standards for competitive electric and gas (as well as telecommunications). The PUCO market analysis has enabled it to make the service standards and market behavior rules not only comprehensive, but also detailed and explicit.¹⁷ In Texas, the TPUC identified the misbehavior pattern of a specific market participant while tracking consumer contacts. In early 2004, the TPUC ordered a major fine against this energy company because the company switched customers' energy providers without telling them and then allegedly charged those customers late fees and had their bills turned over to collection agencies when they complained. The TPUC

¹⁷ See *Rules for Competitive Retail Electric Service*, Chapter 4901:1-21, and *Minimum Telephone Service Standards*, Chapter 4901:1-05 Ohio Revised Code. Also see *Competitive Retail Service Rules for Existing Local Exchange Telephone Company Competition Guidelines* in the Public Utilities Commission of Ohio Cases No. 99-998-TP-COI and 99-563-TP-COI.

case resulted in an order for the company to pay a \$750,000 fine and take steps to eliminate similar actions within the company.¹⁸ These are just two examples of states using detailed retail market awareness to advance the development of the markets.

The value of a detailed understanding of the current retail market characteristics should not be underestimated. The development of the wholesale electricity market places increased pressure on retail markets. State commissions, regardless of whether the state retail market is open to competition or not, will continue to have an increasing need to rely on retail market monitoring.

¹⁸ The TPUC, Press Release “Energy American to Pay \$750,000 Penalty” Jan. 29, 2004. See <http://www.puc.state.tx.us/nrelease/2004/012904.cfm>.

CONCLUSION

Very often, wholesale electricity is a necessary input for retail service. Any wholesale costs that place upward price pressure create increasing price pressure down the chain of consumption. Therefore, state regulators have an understandably acute interest in the fair and efficient operation of the wholesale market.

For some states the full-scale timely examination of granular wholesale market data is simply not a practical endeavor. The volume of data to examine across all hours in the wholesale market is enormous and could overwhelm many already busy and resource-constrained state commission staffs. This volume of data will only grow even more with the further expansion of location specific (nodal) pricing. Fortunately, it should not be necessary for states to engage in full-scale wholesale market monitoring in order to maintain a fair and timely handle on the wholesale market from a state perspective. All states, whether or not they choose to engage in full-scale wholesale market monitoring should be able to rely on the motivation and incentives of FERC to properly lead the wholesale market monitoring efforts. FERC already produces some reports (discussed above) that state commissions could use to maintain a good awareness of the wholesale markets without engaging in actual detailed market data analysis. These reports and those produced by the RTOs can be the beginning of a good data sharing process and could be made available to all states.

Wholesale market analysis by states or regional state entities could serve as a great assistance to FERC and/or RTOs in examining state/regional details that FERC or the RTOs may not have the time to focus on in a larger role. Just as the states advised the Federal Communications Commissions on Bell operating company entry into long-distance, so the states could act as advisors to the FERC on the wholesale electricity markets. By allowing for the use of special confidential information arrangements, there would be no compelling reasons why FERC and the RTOs could not share all market data with the states that so desire. This is important because, the data that is generally available to state regulators is inadequate to thoroughly examine market behavior in hopes of timely identification of abuse and prevention of market damage.

The market argument in favor of preventing or delaying the release of identifying data to the states for months is that it removes the danger of harming any participant's position in the market or enabling market manipulation like collusion through the exposure of competitively sensitive data. Even if there is a potential for some harm to competitive positions, or some market collusion from the release of market data, it is unlikely that potential could outweigh the harm to the markets (wholesale and retail) and consumers that results when regulators lack actual detailed data.

FERC and the RTOs could promptly initiate or expand collaborations with states and develop an administratively simple, automatic, and rapid sharing of timely detailed confidential market data with those states that desire to examine such data. Additionally, FERC and the RTOs, in collaboration with the states, could develop a fair list of useful reports that could be shared with all states on a timely basis. If these reports were informative and timely enough, many states may be able to rely on these reports as their primary source of wholesale market information, enabling the state commission to maintain awareness of the wholesale market conditions relative to their state interests without having to actually devote significant (and perhaps duplicative) resources to seeking and analyzing raw data.

Given the long-term and widespread harm that market abuse has had and can have on the market, the customer and the larger economy, today is better than tomorrow for improving market monitoring effectiveness. The seeds of cooperative wholesale market monitoring between FERC, RTOs and the states can be found in the Western states Seams Steering Group, the PJM proposal, and the FERC data-sharing pilot. By themselves, none of these efforts provide the states with the broadest possible access to market data that would both enhance the markets and better enable state regulators to fulfill their responsibilities to consumers and market participants. Wholesale market monitoring should be a cooperative effort of all regulators, system operators, and the market participants themselves. There would be far more value in cooperation than in duplication of efforts. End-use customers and all honest and ethical participants in markets will benefit from a transparent market with thorough, organized and efficient market monitoring.

Regarding retail market monitoring, it is incumbent upon the states to continue, and where possible, increase their monitoring and analysis of the retail markets and retail customer behavior. Detailed, accurate and timely understanding of the retail market is important for assuring compliance with retail rules. State commissions have been protecting electricity customers for many decades through this type of retail market monitoring. A less obvious and more recent function of retail market monitoring is to assure that the retail consumers (whether or not in a state with open retail competition) are not placed at undue risk of harm from the operations of participants in the wholesale markets. Finally, efforts such as detailed customer contact and complaint tracking, trend analysis and consumer surveys can assist everyone in better understanding the conditions of the retail market and the viability of market competition.

When U.S. District Court Judge Greene issued his Modification of Final Judgment, the landmark 1982 telecommunications industry decision,¹⁹ it was envisaged that there would come a time when these new entities would openly compete for each other's business and be joined by many other competitors. It took nearly 20 years for that to happen. It only worked after 20 years because state and federal regulators and the entire breadth of market participants worked at various times and in various forums to influence, develop and implement a myriad of market rules, regulations, procedures and protocols. The success of competitive electricity markets will require the same cooperative efforts.

¹⁹ The Modification of Final Judgment is considered in and appended to the court's decision in *United States v. Western Electric Co., Inc.*, 552 F. Supp. 131 (1982),