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**Report of the Market Monitoring Work Group to the
Committee on Regional Electric Power Cooperation
February 9, 2004**

I. Overview

In Order 2000, the Federal Energy Regulatory Commission (FERC) institutionalized the market monitoring function as part and parcel of voluntary Regional Transmission Organizations (RTOs): the proposed next step in implementing the Energy Policy Act of 1992 (EPACT) by furthering non-discriminatory operation of and access to transmission facilities and development of well-functioning, efficient regional wholesale electricity markets. Short-term transactions have always existed because of the lumpy nature of generation investment and the obvious benefit of sharing excess resources among neighboring utilities in order to balance loads and resources. These cost-based transactions took place through bilateral contracts or through power pool contractual arrangements delineated in tariffs approved by FERC. However, EPACT allowed FERC to grant market-based rate authority to entities conducting electricity transactions. This shift from cost-based regulated transactions to commodity trading of electricity at market-based prices created the need for market monitoring.

Market monitors, either internal or external to the RTO, would play an analytical role by independently evaluating market data, rates, design, structure, and rules and by making recommendations on changes needed to make markets more effective and efficient and less vulnerable to miscues. Market monitors would also police markets for

actual violations of market rules and abusive and anti-competitive behavior, would institute mitigation measures, if authorized, would report violations to entities with the authority to enforce compliance and administer penalties, and would make recommendations to correct market problems.¹

The need for monitoring regional electricity markets seems obvious, but market monitoring creates legal, jurisdictional, economic, operational, planning, data access, and, last but not least, independence implications that affect, but do not eliminate, the traditional regulatory roles and statutory responsibilities of both FERC and the states. Although the RTO market monitors provide FERC with reports and recommendations, FERC still has the ultimate responsibility and authority to determine whether regional electricity markets are producing just and reasonable prices, to investigate and penalize market participants engaging in gaming strategies detrimental to markets, and to approve proposed changes to markets. States, on the other hand, have responsibility not only for examining wholesale power purchases and passing them on to retail consumers (via purchased cost adjustment clauses or rate cases), but also for ensuring that regional market resources contribute to the provision of an adequate, reliable, and safe supply of electricity and that regulated utilities (or load-serving entities) employ risk management strategies that address the appropriate role of the regional electricity market in their portfolios. Thus, the information and work products market monitors provide are

¹ More discussion on the development of market monitoring using case studies of PJM, the New York ISO, ISO New England, and the California ISO can be found in the recently published Lawrence Berkeley National Laboratory report prepared for CREPC, [A Review of Market Monitoring Activities at U.S. Independent System Operators](http://eetd.lbl.gov/ea/EMS/EMS_pubs.html) (http://eetd.lbl.gov/ea/EMS/EMS_pubs.html).

invaluable tools for both federal and state regulators in carrying out their respective statutory obligations.²

However, market monitoring did not have a chance to get off the ground before the Western energy crisis occurred. Nothing has illustrated the complexities or exposed the weaknesses of regional electricity markets like the collapse of the California Power Exchange and the Western Interconnection market in 2000-2001, followed by the subsequent collapse of the electricity trading and independent generation businesses throughout the nation and by the prolonged response to and investigation and litigation of these events over the past three years. The economic impact of the energy crisis has been devastating to some Western states.

In an effort to bolster its market monitoring capabilities, FERC established a separate division, the Office of Market Oversight and Investigations (OMOI), in 2002 to oversee and monitor energy markets, to review the market monitoring activities of the RTOs, to provide timely investigation and mitigation of market problems, and to audit compliance with FERC rules and regulations. OMOI prepares periodic energy market analyses and investigative reports for the FERC, holds coordination meetings with the regional market monitors, and has established an outreach program to the states in each region.³ Additionally, last summer FERC's Office of General Counsel conducted a

² Other entities at the federal and state level have the authority to investigate and prosecute antitrust behavior in regional electricity markets.

³ The outreach program began with a meeting of state representatives with OMOI and market monitors in February 2003 to discuss and establish market monitoring principles and to find common ground for working together, including a meaningful role for states in the market monitoring process. This meeting was followed by a workshop sponsored by the National Council on Electricity Policy at the July 2003 NARUC meetings.

“Survey of State and Other Information Disclosure Laws” to aid the process of determining how market information could be shared between OMOI and the states.⁴

In every region, states are developing approaches to formulating a meaningful role in market monitoring without unnecessarily duplicating the work of the RTO market monitors or FERC’s OMOI, but still obtaining information necessary to carry out state statutory obligations. First and foremost in this endeavor is gaining access to market data. The proverbial “brick wall” states have run into is how to balance the needs of market participants for protecting confidentiality of commercially sensitive information with the needs of the states to be able to review, understand, and analyze how and whether their regional electricity markets are working properly.⁵ Part of this discussion involves a determination of how long such information should remain confidential. Another key factor in data access is timeliness. Although most wholesale electricity market data becomes publicly available eventually, significant delays in access to market data, sometimes months later, can lead to time lags in analyzing, investigating, and correcting market problems and the possible cascading of market problems, as evidenced in the Western energy crisis.

Obviously, if markets cross state lines, then a single state’s access to and analysis of market conditions can only go so far. So the next logical step is the creation of a forum or method for coordination among states of regional market analysis and review.

⁴ This survey is currently under review by the Western states, Canadian provinces, and Mexican states participating in the Western Interconnection to verify FERC’s take on these laws.

⁵ PJM filed a letter with FERC in December 2003 showing current progress with its footprint states on access to confidential market data (Docket No. RM01-12).

A further step for states is participation in the loop of information, analysis, and recommendations exchanged between market monitors and OMOI so that responses to market conditions are coordinated among the entities bearing their respective responsibilities.

II. Situation Analysis

A. The Western Interconnection

The Western Interconnection presents unique challenges for market monitoring in the following areas.

Interconnection-wide Market. By virtue of its interconnectedness as a stand-alone entity for reliability purposes, the West is one big trading arena for electricity products and services. There is a history of seasonal exchanges between the northern and southern halves of the interconnection, and there is some power pooling in the West (e.g., Northwest Power Pool). There is also a history, beginning in 1987, of short-term economy energy transactions conducted through the Western Systems Power Pool (WSPP) tariff and its underlying contracts approved by FERC (www.wspp.org). The WSPP has over 220 members representing the diversity of electricity market participants in the West.

The bilateral trades conducted through the WSPP are conducted on a short-term, near real-time basis, but are reported to FERC on a quarterly basis (the EQR), hence creating a lag of 90 to 120 days between the trades and their actual reporting, and the margins on these trades can be kept confidential for up to one year. Although the WSPP

has facilitated the short-term trading of electricity products and services over a long period of time, three problems arise in the context of trying to monitor these transactions. The first is obvious: the lag in reporting these bilateral trades. The second is that entities not jurisdictional to FERC are not required to report these trades. The third is that electricity trading by bilateral contract does not constitute a market with price transparency. Thus, although the WSPP represents a simulated “market” of sorts, the trading data it provides are reported on a delayed basis and are not all-inclusive with regard to market participants.

Public Entities. An issue of extreme importance in the West is the role of public entities. These entities – states, municipalities, public utility districts, federal agencies, federal power marketing authorities, and sovereign Indian nations – play a dual role of being governmental entities not regulated by FERC or the states and of being buyers and sellers of transmission and electricity products and services in the Western market. Federal entities – BPA and WAPA – own vast transmission resources in the West, and the public entities as a whole represent a significant presence in the Western market, but are not obligated to provide data to the FERC or the states on their transmission and/or electricity transactions. (In addition, rural electric cooperatives are not regulated by all states in the West or by FERC for the most part, but are significant market participants and transmission owners in some parts of the West.) It should be noted that FERC has some authority over the public entities that have received authority to sell power at market-based rates. But, as noted above, public entities can participate in electricity trading but, in general, are not obligated to report these sales.

International Participants. The interconnection includes not only Western states, but also Canadian provinces and Mexican states. Again, these entities are not answerable to FERC or the Western states, except to the extent noted above regarding market-based rate authority. How to obtain market data from Canadian and Mexican participants presents a special challenge to monitoring the Western market.

Resource Mix. The Western Interconnection contains more hydro resources than any other region. While these resources play a key role in the Western market, they are also restricted by weather conditions (e.g., drought years) and by environmental and other demands and uses of these resources for fish and wildlife mitigation, agriculture, recreation, and drinking water. Agreements struck over a long period of years affect and limit the operation and deployment of these resources in the Western market. Further, the majority of these resources are owned by public entities that are not subject to FERC or state jurisdiction.

While gas-fired generating units have formed the “market” because of ease of construction, lower investment cost, readily accessible fuel supplies, and relatively stable fuel prices, the West contains abundant supplies of low-sulfur coal and of renewable resources, such as wind, geothermal, and solar. These resources allow the West to have more flexibility in resource choices, but are also more conducive to long-term contractual arrangements, rather than short-term markets, because of their higher investment costs relative to gas-fired generation. Further, recent trends in natural gas supply and price have caused the West and other regions to rethink the policy of sole or major dependence on gas-fired generation as the basis for regional electricity markets.

The wide variety of resource options in the West may create unique products and services opportunities that will need to be incorporated into the regional electricity market and may create new challenges for monitoring the market

Vertically-integrated Utilities. The majority of investor-owned utilities in the West are still vertically integrated. The energy crisis three years ago has led many states to continue requiring, or to consider requiring, their regulated utilities to engage in the integrated resource planning (IRP) process. Prior to the energy crisis, many Western utilities looked to the short-term market to satisfy shortfalls, particularly during their peaks, because there was excess capacity in the market. However, many utilities are now looking at building their own generation or entering into long-term contracts for generation to meet their projected loads. This trend will diminish, but not eliminate, the role of short-term markets in the Western region. As the cycle of load growth and resource construction unfolds in the West, there will be periods of time when the size of the short-term market increases.⁶ Market monitoring is not dependent on market size and should continue throughout these load/resource growth cycles. Additionally, the short-term market will sometimes present opportunities for purchasing power cheaper than it can be produced, and these economic-based transactions will continue, along with seasonal exchanges and balancing transactions.

RTO Development. The only currently operational and monitored market in the West is the California ISO (Cal ISO). The Cal ISO has an internal market monitoring

⁶ PJM is currently experiencing this situation with over 20% of resource transactions in the short-term market.

unit (Division of Market Analysis) and an advisory Market Surveillance Committee. The Cal ISO can only monitor transactions that occur within its footprint, which is roughly the territory served by the three investor-owned utilities and lies entirely within the state of California. Many of the generators serving California are not located within the Cal ISO footprint, including those entities in the Pacific Northwest providing seasonal exchange electricity.

In the Pacific Northwest, the RTO West Regional Representatives Group (RRG), a stakeholder forum including state representatives and numerous market participants, has recently developed a platform proposal to develop an independent entity for grid management and voluntary consolidation of control areas. The RRG is developing a schedule to move the implementation process forward over the next year, but when the independent entity will become operational is dependent on the working out of numerous technical, administrative, and regulatory issues. Once the entity becomes operational, the development of associated markets for electricity products and services will be phased in over time. The platform proposal does include a market monitor.

The West Connect participants in the Southwest have decided to delay implementation of an RTO until at least 2010. However, they are having some ongoing discussions concerning implementing a voluntary bulletin board for the posting of electricity transactions.

B. The Two Ongoing Processes

Two separate processes have arisen to address interconnection-wide market monitoring in the West. First, lingering concerns about what will happen when the next

collision of high demand for electricity and scarce or constrained generation and transmission resources occurs, about attracting sufficient infrastructure investment to serve future electricity needs, and about insuring that the Western electricity market as a whole is robust and efficient prompted six Western state regulatory commissions and three Offices of Consumer Counsel to file comments with FERC in March 2003 proposing the establishment of a West-wide market monitor.⁷

The filing of these comments resulted in the development of the “Western States – Federal Energy Regulatory Commission (Office of Market Oversight and Investigations (OMOI)) Statement of Shared Understanding and Purpose and Initial Action Plan” (Statement) in July 2003 (www.westgov.org/wieb/crep1.htm). The Statement calls for a separate independent market monitor to review and evaluate how well the entire Western Interconnection electricity market is functioning, to make recommendations on any changes needed to market rules and design, to enable timely enforcement actions, and to provide information to enable appropriate real-time market mitigation actions. The Statement contemplates that the West-wide market monitor would be established now and would oversee all market transaction activities for transmission and electricity products and services.

Second, the Seams Steering Group – Western Interconnection (SSG-WI) was formed in 2002 by participants from the three western RTOs in response to FERC’s suggestion that an entity was needed to address seams issues in the West among the

⁷ Signatories were the state regulatory commissions in Idaho, Montana, Oregon, Utah, Washington, and Wyoming and Consumer Counsels in Montana, Utah, and Wyoming.

California ISO, RTO West, and West Connect footprints. SSG-WI created numerous work groups, including the Market Monitoring Work Group (MMWG), to address how the three regions would resolve issues crossing their boundaries. CREPC members, FERC's OMOI, and market participants from all three RTO regions have participated in the development of the MMWG proposal presented to SSG-WI in October 2003. The MMWG considered three different models for addressing the monitoring of seams transactions involving transmission services and products -- the coordination model, the single monitor model, and the umbrella model -- but ultimately selected the umbrella model for presentation to SSG-WI. SSG-WI identified several areas in the proposal needing more work, and the MMWG has formed four subgroups -- Roles and Responsibilities, Transition, Structure, and State Access to Data -- to develop responses by this spring. (See attached "SSG-WI Market Monitoring Work Group West-Wide Market Monitoring Recommendations," dated October 17, 2003, and "Seams Steering Group -- Western Interconnection Status of Market Monitoring Work Group as of October 28, 2003.")

Because the two processes are addressing the same issues, a joint meeting between the signatories to the Statement and the MMWG occurred in July 2003, and the MMWG met in conjunction with the CREPC meeting in November 2003. Obviously, the participation of CREPC members in the MMWG has resulted in a cross-pollination of ideas and in coordination of the two processes. The MMWG's selection of the umbrella approach that is independent from the individual RTO market monitors and support for a market monitor that reviews the Western market as a whole, not just seams, moved the

two processes closer together. The major difference remaining between the two groups is the broader focus of the state group on all market transactions, while the MMWG has focused on transmission.

C. Unresolved Issues

The MMWG subgroups are currently addressing several critical issues that must be resolved to establish a West-wide market monitor. First, the roles and responsibilities of the West-wide monitor must avoid duplicating the efforts of market monitors for current and future individual RTO entities. The West-wide monitor must focus on the Western market as a whole and on transactions at the seams between RTO regions.

Second, with only one ISO up and running in the West, there is not a formal platform for monitoring transactions other than in California. As previously discussed, the WSPP tariff offers a means for transactions to occur, but is not a market *per se*. Although Western market participants report transactions on a voluntary basis to Platt's and other reporting services, the West-wide market monitor would need first-hand access to market information so that it can be verified. In order for West-wide market monitoring to be feasible and meaningful, access to market data must exist. Some type of transaction reporting closer to real time – for example, by electronic posting to a bulletin board – and access to those transaction data is one possible solution to making monitoring plausible in the current situation. As circumstances change in the West, the way the West-wide monitor gains access to market data would also change.

Third, the issues of authority and reporting are intertwined. The Statement signatories envision that the monitoring entity would report jointly to FERC and the states, while the MMWG contemplates that the monitoring entity would be FERC-jurisdictional. The West-wide monitor will need specific authority to gain access to data, to perform investigations, to apply mitigation measures, and to enforce market rules. The market monitor must also be able to share reports, investigative findings, and recommendations with FERC and the states, including the data underlying such reports and analyses, so that federal and state regulators can discharge their duties.

Fourth, some rational resolution must be reached that allows market data to be shared among the market monitor, FERC, and the states without jeopardizing the commercial sensitivity of the data. Opinions vary widely among market participants on whether these data should be disclosed and on the length of time these data should be kept confidential. A global solution to this issue would be to make transmission and electricity transaction information available to the public in a timely manner using an electronic format. This solution would create a level playing field if all market entities agreed to participate.

Fifth, the issue of what type of entity the market monitor would be – separate corporation? firm hired by the states and/or FERC through an RFP? – and how it would be financed must be addressed. Depending on the type of structure a West-wide market monitor becomes, it may be necessary to form an independent board to oversee its work. Alternatively, FERC and/or the states could provide that oversight.

Finally, the signatories to the Statement and the MMWG have discussed how to incorporate the public entities into the market monitoring process, but the difficult issue of recognizing their governmental status and their role as market participants in a manner that does not give them unfair advantage over their competitors has not been resolved. These non-jurisdictional entities are participating in the MMWG discussions. A possible solution would be to provide mechanisms for non-jurisdictional entities to provide market information without invoking further federal or state authority over them.

III. Possible Industry Changes

A. Another Transmission Entity

The success and progress of the RTO West RRG discussions make the establishment of the independent entity more likely, although numerous details, including necessary regulatory approvals, remain to be worked out. The establishment of an independent transmission entity in the Pacific Northwest would greatly aid the development of a West-wide market monitor. However, because West Connect would still not be operational and because of the issue of non-jurisdictional entities in the West, establishment of the RTO West transmission entity would offer a path to a partial solution to West-wide market monitoring.

B. Federal Energy Legislation

In its last published version in November 2003, the energy bill (HR 6, H. Report 108-375) contains one section that would affect positively affect efforts to develop a

West-wide market monitor. Section 1281, Market Transparency Rules, would require FERC to establish an electronic information system to provide FERC, state, market participant, and public access to availability and market prices for wholesale electric energy and transmission services on a timely basis. This section of the energy bill would resolve the issue of access to data pertaining to FERC-jurisdictional entities and would, thus, partially enable the process of West-wide market monitoring.

IV. Interstate and FERC/State Coordination

Coordination among Western states is key to the success of West-wide market monitoring. No single state has the resources or the clear authority to monitor electricity transactions on a West-wide basis and would, thus, only be able to produce very limited analyses of limited value on its own. Even collectively, the Western states would face great difficulty in assembling the expertise needed to adequately review and analyze West-wide market data. Further, an individual state could only take action concerning the entities it regulates. A piecemeal approach would not resolve problems facing the market as a whole and would be extremely time-consuming as each state fashioned its own response. However, the Western states would benefit from the establishment of a regional forum, or other similar structure, for oversight of an independent West-wide market monitor, so that they would then have the means to review, analyze, and address market issues.

The Statement previously discussed has described a set of issues and an initial action plan to be worked on jointly by the Western states and OMOI to effectively

monitor the West-wide market and can serve as a platform for FERC/state coordination in this task. States and FERC have the common goal of ensuring a properly functioning electricity market in the West, and coordination would maximize information sharing, review, and analysis and would facilitate addressing market changes. As contemplated in the Statement, states and FERC would exercise mutual oversight of West-wide market monitoring. This coordination would give states a meaningful and informed role in the market monitoring process in the West.

V. Alternative Futures and Regional Body Options

The future shape of the industry is not as great a factor in market monitoring as in other industry areas. A West-wide short-term market already exists and will continue to operate whether RTOs are formed. Even if RTOs or similar entities are formed, the participation of non-jurisdictional entities points to the need for a broader solution to market monitoring. The passage of federal energy legislation would resolve the issue of access to data by making data publicly available, but access to data is just the tool for analyzing whether and how markets are working and for recommending needed market changes. Although future developments may facilitate West-wide market monitoring, the need to perform this function is independent of the direction taken by the industry in the future.

Because the role of states in market monitoring would entail oversight, rather than the actual monitoring itself, and would entail working with OMOI and the market monitor, states acting together in a coordinated fashion would necessitate a different take

on the continuum of regional body options. The information sharing and analysis and evaluation functions are a given due to the nature of market monitoring itself. The first step in this process would be timely and periodic analysis and evaluation of market monitoring reports and recommendations, as well as underlying market data in some instances. The second step would entail determining what actions to recommend based on the foregoing. States would also need an organized forum for meeting on a quick-response basis, as well as a periodic basis, such as quarterly. Depending on the structure of the market monitoring entity, the state role might also include participation in hiring and evaluating the monitor. This combination of factors points to the formation of an advisory-type body.

The short-term course of action recommended is to continue and to enhance CREPC participation in the development of the MMWG's recommendations to SSG-WI in order to see how far this effort can go toward achieving the goals articulated in the Statement for the development of effective monitoring of the West-wide market and of a meaningful role for states in the monitoring process. Subsequently, states and OMOI will re-evaluate what further work needs to be done to implement the initial action plan contained in the Statement.