

Market Monitoring Whitepaper

❖ Problem Statement

It is a generally-held belief that monitoring the wholesale transmission and power market in order to avoid anticompetitive behavior or market abuse and in order to mitigate unintended market design inadequacies is valuable to market participants and consumers, as it would improve market efficiencies and lower the overall cost of electricity.

Currently, market monitoring in the western interconnection is only being done in California. As a result, the approach to monitoring is focused on the conditions, design concepts and issues that are particular to the California market. This view of markets is therefore not comprehensive and reflective of the differences that characterize the entire western interconnection. By way of example, the California market is a net importer of energy; generation located in state is primarily fossil-fueled; the energy crisis of 2000-2001 and resulting litigation has greatly affected market rules and relationships among market participants, etc.

While it is expected that the Federal Energy Regulatory Commission, along with state regulatory authorities in the west, will eventually require some form of market monitoring, the lack of formal transmission organizations throughout the west has stymied the establishment of standardized markets and logically, monitoring entities.

❖ Baseline Description

▪ Status quo

- ◆ FERC initiated a fact-finding investigation February 13, 2002 to determine whether sellers manipulated electricity and natural gas markets in California and other Western states in 2000 and 2001. As a result, Commission staff concluded that underlying market dysfunction allowed “significant market manipulation.” Profits from Enron Online were estimated to exceed \$500 million in 2000 and 2001 and Enron’s use of prohibited gaming strategies and partnerships were estimated to produce profits of \$1.6 – \$1.8 billion during the period January 16, 1997 to June 25, 2004.¹ Arguably, the lack of market monitoring cost the western interconnection somewhere between \$500 million and \$1 billion as a result of market manipulation during the 2000-2001 time frame.

Staff Report, “Price Manipulation in Western Markets,” Docket No. PA02-2-000, March 26, 2003; and “The Western Energy Crisis, the Enron Bankruptcy, and FERC’s Response,” <http://www.ferc.gov/industries/electric/indus-act/wec/chron/chronology.pdf>.

- Known and measurable changes
 - ◆ The SSG-WI west-wide market monitoring effort is most likely to accomplish the two-year pilot project before Grid West becomes operational and may possibly be in the beginning stages of implementation.

❖ Potential CCA Approach or GW Approach (Basic Features)

The market monitoring function envisioned by Grid West has not evolved beyond that developed for RTO West. That said, there appears to be a general comfort level with the RTO West Stage 2 approach that would probably be adopted in large part by Grid West. The basic elements envisioned for marketing monitoring by Grid West include:

- The establishment of an independent Market Monitoring Unit (MMU).
- The MMU would have the responsibility of executing a Market Monitoring Plan which is in compliance with FERC’s Order 2000.
- The MMU would monitor regional wholesale power markets, i.e., markets that affect prices in the western-interconnection.
- The MMU would have access to data available as required by the Market Monitoring Plan. Such data may include periodic price and volume data for power products offered into markets operated and administered by Grid West and other organizations.
- The MMU would develop market indices and screens, as tools, in order to monitor and report on activity in the wholesale power and transmission services market.
- The MMU could recommend but could not impose without specific authority, penalties or price mitigation measures.²
- The MMU would have a reporting function to the Board of Trustees, and other applicable authorities.

❖ Potential Alternative Approaches (Descriptive rather than analytical)

The Transmission Issues Group (TIG) has established a “Charter for Pacific Northwest Market Monitoring” which is intended to investigate the wholesale power and transmission markets in the Pacific Northwest using wesTTrnas.net data, analyses performed by NTAC and data used/generated by the Pacific Northwest Security Coordinator. This entity is envisioned to be established under the Northwest Power Pool and not be FERC-jurisdictional. The ability for this entity to secure data will be treated as a condition of service under Open Access Transmission Tariffs or as part of standard agreements with OATI (the vendor for wesTTrans).

² See limitations in Section 7.16.5, Special Issues List, of the Operational Bylaws for Grid West.

❖ Analytical Questions Affecting Results

- During the 2000-2001 power crisis, would analysis and intervention by an independent market monitor have been more effective than pleadings to FERC by utility stakeholders who stood to lose or gain during that period?
- What price mitigation may have occurred if an independent MMU were present?
- Under the current OATT and bilateral market structure in the region, can sufficient information about the periodic price and volume of wholesale power products be timely acquired for analysis? Would any additional authority from FERC, state/provincial regulators, or Federal statute be required to acquire this data?

❖ Related Efforts

The SSG-WI marketing monitoring workgroup is pursuing funding for a market monitoring pilot project which would be used to define the potential benefits that could result from a west-wide market monitoring entity. This project is expected to be defined and funded in time for a kick-off workshop in September 2005. The project is intended to be used to demonstrate the value that a MME will bring to the wholesale marketplace without duplicating subregional market monitoring or undermining subregional market monitors.

The west-wide market monitor is assumed to be a FERC-jurisdictional entity, however, there is interest by some to test this assumption. Regardless of whether the entity is sanctioned by FERC, any analysis of, reporting on, and/or intervention in wholesale power markets would likely involve FERC jurisdictional agreements (e.g. bilateral wholesale power such as WSPP, ancillary services provided under OATTs, etc.).

❖ Analysis Design/Performed

▪ Generation Operational Efficiency

Market monitoring is anticipated to discipline behavior in wholesale power markets, prevent exercise of market power and thereby apply downward pressure on the cost of electricity. This is expected to be accomplished by establishing ex ante market metrics and rules that report on market conditions and impose parameters to mitigate extreme events. In the first instance, parties active in wholesale power markets would be aware that their actions may be visible to an independent party that is authorized to report, if not intervene, in situations that trigger established market power screens. This condition, which is absent today, will provide an immediate discipline on market behavior with potential to prevent wholesale power market dysfunction.

Economic and physical withholding of generation from power markets was identified as the primary contributor to dysfunctional markets in 2000-2001. Such anticompetitive practices could be immediately identified and reported by an independent regional market monitor.

In the aftermath of the 2000-2001 western power crisis, parties have alleged that the estimated the cost of anticompetitive behavior in the Northwest is upward of \$____.³ While these costs remain disputed by the parties in those proceedings, these values are used to establish an upper bound on the potential benefit of effective market monitoring and prevention of wholesale power market dysfunction.

- **Generation Construction**

Market monitoring may be a consideration by developers of power production facilities or the selection of facilities by power purchasers. Based on responses to the Risk/Reward Survey, developers seek regions that provide price stability and regulatory certainty, rather than litigation of market power disputes at FERC and in public forums.⁴ Purchasers are also expected to have an interest in acquiring new resources that are not subject to price volatility inherent in dysfunctional wholesale power markets.⁵

- **T&D Construction**

Under the current transmission service model T&D planning generally does not consider indicators of market power and the potential mitigating effects of transmission construction. Jurisdictional transmission providers with affiliated power producers and marketing interests are subject to FERC market power screens which include consideration of transmission constraints in relevant markets to determine whether market-based rate authorizations are in the public interest. An independent MMU would be better equipped to analyze impacts of transmission on market power indices and provide guidance to regional stakeholders on mitigation of market power.

Transmission planning practices that also address market power concerns would benefit most stakeholder interests and make transmission planning processes more efficient.

- **Transaction Costs**

Market monitoring may reduce the administrative costs associated with market participants' reporting and filing requirements. By way of example, the FERC has in the past, relaxed the standard for testing market power for market participants who transact in regions where FERC-approved RTOs or ISOs are in place. In fact, the Commission's generation market power analysis, the Supply Margin Assessment (the interim replacement for the original and traditional "hub-and-spoke" analysis), provided a blanket exemption for sales into ISO/RTO markets with Commission-approved market monitoring and mitigation plans. With the issuance of an order on April 14, 2004 (AEP Power Marketing, Inc., et al., 107 FERC 61,018 (2004), the Commission replaced the definitive market screen with two "indicative" screens for assessing market power which extended the use of indicative screens to entities operating within ISO/RTOs. However, this order does allow participants in ISO/RTO markets to report to the Commission that

³ Op. Cit., the value cited reflects settlement amounts.

⁴ See responses 1.f.4., 1.f.6. 2.c.3., 5.d.5.

⁵ One only needs to take stock of the many complaint cases filed at FERC in the aftermath of the 2000-2001 power crisis to appreciate the market monitoring interests of utilities with load service obligations.

the mitigation imposed by the ISO/RTO effectively eliminates the ability to exercise market power. The Commission also allows market participants to use an ISO/RTO-wide geographic market (with central unit commitment and dispatch protocol) as the relevant geographic market for the determination of market power.

The market design envisioned by Grid West, which will evaluate available transmission capability on a flow-basis, may simplify the preparation of market power analyses by making broadly available, standardized transmission limitation information, i.e., simultaneous transmission import capabilities into and out of the relevant geographic market for market participants. Standardization of information and the manner in which information is prepared and reported has proven problematic in the past.

The voluntary consolidation of control areas, anticipated for at least some of the Grid West participants, could enable the use of that footprint as the relevant geographic market as a result of implementing a centralized energy imbalance market.

- **Broader economy**

Reduction or mitigation of market abuse will have a positive impact on the macro economy. In short, the expectation is that effective market monitoring will enhance competition and lower the overall cost of power.

There will be an administrative cost to the monitoring effort, however. The cost of this function for the Grid West footprint is estimated to be \$1.1 million per year.

- **Reliability**

At the height of the 2000-2001 western power crises, physical withholding of generating capacity for purposes of increasing market prices has been associated with blackouts in California. Furthermore, parties in the Northwest were directed to sell power to California to prevent further blackouts. These sales of scarce energy production resources during a drought created potential for late summer shortages in the Northwest which could have led to inadequate supply and violation of non-power constraints. As described above, market monitoring offers distinct potential to prevent physical withholding of generating resources—a practice that has proven adverse reliability impacts.

- ❖ **Potential Distributional Issues**

- **Comparability**

- **Cost Shifts**

- ◆ Implications, dynamics, consequences, improvements, unintended consequences, opportunities
- ◆ Cost shifts, wealth transfers, distributional effects, perceived
- ◆ If possible, consider a range for assumptions, test sensitivities