



The Role of the Independent Market Monitor around the world







An overview of USEA

- An association of public and private energy-related organizations, corporations, and government agencies that represents the broad interests of the U.S. energy sector by increasing the understanding of energy issues, both domestically and internationally.
- Through its EUPP Cooperative Agreement with USAID, it supports USAID actions to promote energy security, access to renewable energy and the transition to a cleaner global energy economy, by helping emerging markets access U.S. public and private sector expertise and technical assistance.

USAID Work on Independent Market Monitors

- Based on a request from the Superintendencia de Servicios, via the USAID Bureau for Economic Growth, Education and Environment and USAID/Colombia
- Webinars conducted so far include:
 - Joe Bowring, President of Monitoring Analytics, the independent market monitor (IMM) of PJM
 - Robert Sinclair, Vice President of Potomac Economics, the IMM for MISO, NYISO, ISO NE, ERCOT
- Webinars are available at www.usea.org/events

Why is a Market Monitor necessary?

Because market liberalization changed power market prices (in some countries) from being regulated, based on costs, to being market-based.

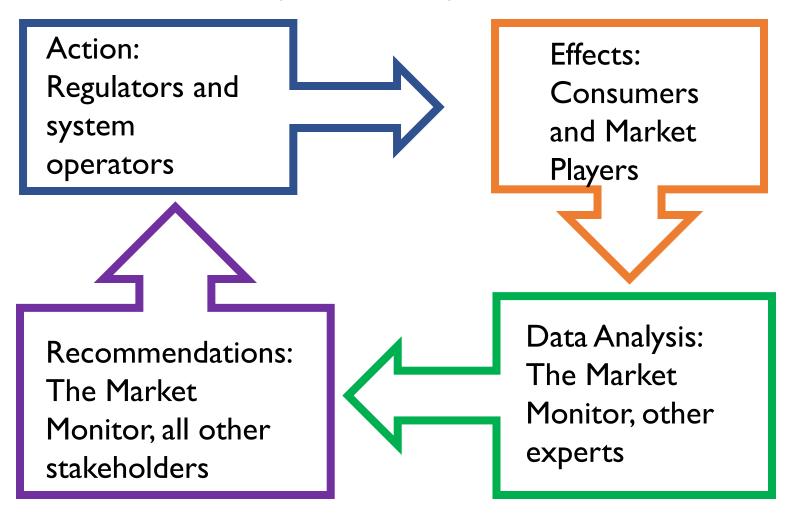
To ensure that markets participants cannot exercise market power, collude or engage in any other behavior that could give them a greater market share, or higher profits.

What is the role of the market monitor

- Detect attempts to exercise market power and fraudulent behavior
- Evaluate market performance
- Detect and suggest correction for market design imperfections
- Analyze transmission and generation blackouts, and
- Assess market participants' behavior (activities and transactions)

Overview of the role of the market monitor

These actions should take place continuously:



Source: Can we trust electricity prices, Keay Bright, 2016.

Ex ante actions are generally better than ex post

Ex Ante Options

Long term Detection \
techniques: simulation models of strategic behavior; structural indices.

Mitigation options: merger rulings; testing prospective reforms to market design

Ex Post Options

Long term

Detection techniques: competitive benchmark analysis based on historical costs; comparison of market bids with profit maximizing bids.

Mitigation options: reforms to market design (based on lessons learned); litigation cases.

Source: Can we trust electricity prices, Keay Bright, 2016.

Ex ante actions are generally better than ex post

Ex Ante Options

Short term **Detection techniques:** bid
screens-comparing bids
to reference bids; some
use of structural indices,

Mitigation options: spot market bid mitigation.

Ex Post Options

Short term

Detection techniques: forced outage analysis and audits; residual demand and demand response analysis.

Mitigation options: penalties; short-term price calculations.

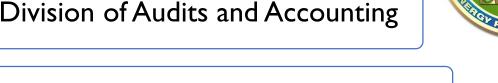
Source: Can we trust electricity prices, Keay Bright, 2016.

Market Monitoring Activities Around the World: The U.S. Market

FERC dedicates considerable effort to monitoring energy markets:

Office of Enforcement

- Division of Investigations
- Division of Audits and Accounting



- Division of Energy Market Oversight
- Division of Analytics and Surveillance

Market Monitoring Activities Around the World: The U.S. Market- Statistics on DOI monitoring FY2018

- DOI staff opened 24 new investigations, closed 23 pending investigations with no action and negotiated six settlements of over \$149 million, including \$83 million in civil penalties and over \$66 million in unjust profits.
- DAS surveilled over 36,000 hub and pricing nodes within the six ISO/RTOs and provided support on approximately 50 investigations.
- DAA completed 14 audits of energy companies, resulting in 209 recommendations for corrective action and \$185.1 million in refunds and recoveries.
- Market Oversight continued analyzing market fundamentals (including significant trends and developments), presented its annual State of the Markets Report assessing significant events of the previous year, and biannual reporting, and reached out to the filing community to discuss potential system improvements and enhancements.

Market Monitoring Activities Around the World: The U.S. Market



FERC relies heavily on market monitors at the ISO/RTO level to detect market manipulation

On external IMMS- Potomac Economics, Marketing Analytics

On internal IMMS-at all of the RTOs and ISOs

As well as on other market participants

Market Monitoring Activities Around the World: The Canadian Market

- In Canada, the national entity responsible for market monitoring is the **Canada Energy Regulator**. However, energy is mostly dealt with at the provincial level, since there is no national wholesale market.
- Two Canadian Provinces have a wholesale electricity market: Ontario and Alberta.
- In Ontario, the Market Surveillance Panel (MSP)
 monitors the performance of the Independent
 Electricity System Operator (IESO)-administered
 markets.

Market Monitoring Activities Around the World: The Canadian Market

- The MSP relies on the IESO's Market Assessment Unit (MAU)
 to monitor the market on a daily basis in order to identify
 inappropriate or anomalous conduct by market participants, or
 other activities having an adverse impact on market efficiency
 or effective competition.
- Although the MSP has conducted several abuse of power and gaming investigations to date, it has exonerated all subjects, although it notes that following rule changes on congestion payments saved Ontario ratepayers about \$7 million per year.
- When it detects a potential gaming opportunity, it often recommends rule changes to IESO. Several of these have had to do with trade into and out of the U.S. market.

Market Monitoring Activities Around the World: The European Market-Divided Responsibilities

The **European Commission** monitors the internal market in electricity and its short-, medium- and long-term evolution.

National Regulatory Agencies (NRAs) monitor the level of transparency, including of wholesale prices, and ensure compliance with transparency obligations; as well as the level and effectiveness of market opening and competition at wholesale and retail levels.

The Agency for the Cooperation of Energy Regulators (ACER) monitors the internal market in electricity, in particular the retail prices of electricity, access to the network and compliance with consumer rights, as well as monitoring and analyzing the implementation of Network Codes and their Guidelines and their effect on market integration, effective competition and the efficient functioning of the market.

Market Monitoring Activities Around the World: The European Market -REMIT

- The EU's wholesale electricity market surveillance regulation
- A collaborative framework, with ACER responsible for the collection of market data and for maintaining high-level market surveillance. ACER's monitoring experts will then alert NRAs to suspected cases for further investigation, who are responsible for enforcement.
- ACER can issue recommendations to the Commission on market rules, standards and procedures which could improve market integrity and the functioning of the internal market.
- Areas that ACER is currently investigating include "wash" trades, as well as "layering" or "spoofing."

Market Monitoring Activities Around the World: The Australian Market



•The Australian Energy Regulator (AER) is responsible for monitoring, investigating, and enforcing compliance in Australia's largely deregulated wholesale and retail electricity and gas markets.



Its current priority in wholesale energy markets is to provide accurate and timely information to **Australian Energy Market Operator** to ensure the security of the power system and efficient outcomes, and to itself for its economic and market functions.



Recently, the Australian Competition and Consumer Commission was required to begin investigating energy markets, reporting semi-annually between 2019 and 2025. For the moment, reporting is focused mostly on the retail market

Market Monitoring Activities Around the World: The New Zealand Market

- The Electricity Authority is charged with monitoring the electricity industry for competitiveness, efficiency and reliability to see if any improvements can be made for the long-term benefit of consumers.
- If an anomalous event or outcome occurs in the market or the broader electricity sector, they investigate it to determine the causes and whether something can or should be done to prevent such an event or outcome from occurring again.

Market Monitoring Activities Around the World: Latin America

in Latin America it is generally, but not always, the regulatory organizations that are charged with monitoring energy markets:

- Ente Regulador de la Electricidad (Argentina)-
- Superintendencia de Electricidad (Bolivia)
- Agencia Nacional de Energía Eléctrica (Brasil)
- Superintendencia de Electricidad y Combustibles (Chile)

However, since prices in Latin American electricity markets are generally cost based, with the exception of Mexico, the role of the market monitor is quite different.

Mario DePillis, of Esta International, will be presenting the Mexican case.

In closing, benefits of a Market Monitor

Markets with fully effective scarcity pricing can attract investment at a reasonable cost to meet customer demand, resulting in lower prices for consumers.

Thus, price spikes are a necessary part of electricity markets: they attract additional investments, and provide opportunities for flexibility services such as demand response and storage.

However, investors and service providers, particularly new and small entrants will be less likely to make otherwise efficient investments if they believe incumbents can manipulate the market.

Consumers (and regulators) must also be reassured, since they may otherwise call for (counterproductive) regulations.



Thank you!

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