

At A Glance

## Market Abuse in Energy Markets

### Introduction

Recent regulatory changes in Europe are likely to result in increased enforcement against market abuse in energy markets. Enforcement activity under the *Regulation on Wholesale Energy Markets Integrity and Transparency* (REMIT)<sup>1</sup> is expected to step up.<sup>2</sup> REMIT is a European Union regulation designed to deter market abuse in gas and electricity markets, and also requires disclosure of price-sensitive information regarding energy generation, storage and transmission. In addition, the *Market Abuse Regulation* (MAR), a European Union directive applicable from July 2016, will widen the scope of the existing regulatory framework applicable to certain energy derivatives and related products.

More vigorous enforcement of energy regulation could impact on the European energy market in several ways. In order to have an idea of which cases are likely to arise, it is helpful to highlight some distinct features of energy markets that may be important in any analysis relating to alleged market abuse.

### Relevant Features of Energy Markets

Traditionally, market abuse cases have centred on financial instruments. However, energy markets have distinct features which may be important in any analysis relating to alleged market abuse:

- Energy markets can be **relatively concentrated**, with fewer than ten main players on the generation side and, in some markets, dominated by a single entity;
- Energy markets must **balance supply and demand in real time** and, as a consequence, **demand and supply can be “inelastic”** (i.e., not particularly sensitive to price) in the short term. Accordingly, small changes in the supply-demand balance may result in significant changes in prices;

- Some **traded markets are less liquid**, especially in derivatives markets and emerging European gas hubs; and
- Trade is often conducted **over-the-counter** (OTC) and may be less transparent than exchange-based trading.

While financial markets may share some of these features (e.g., derivatives and other complex financial products may be less liquid and/or traded OTC) these and other characteristics of energy markets must be given careful consideration in any analysis of alleged abuse in such markets, as set out in the discussion below.

## Types of Market Abuse in Energy Markets

Below we discuss the principal forms of market abuse: insider dealing, market manipulation, and misrepresentations or failures to disclose relevant facts. We describe the special considerations that may arise in the context of energy markets and consider the types of economic analyses that can be performed in such matters.

### Insider Dealing

Insider dealing entails trading based on material, non-public (i.e., inside) information in order to enjoy a profit or avoid a loss. In financial markets, a common scenario is that a company insider is alleged to have purchased or sold shares based on knowledge about his/her company not available to the general public.

The structure of the energy industry gives rise to particular considerations in the context of insider dealing. For example, energy companies are often vertically integrated, and may have a presence in power generation, retail provision and energy trading. Whilst in theory information flow between these business units may be restricted, non-public information might be improperly shared across the different business units.

For instance, the unit responsible for electricity generation might discover the need for an unexpected forced outage in one of its own plants, which may affect spot electricity prices. That information could form the basis for an insider-dealing strategy by the integrated trading business. Were the trading business to have access to this privileged information before the information became public, it could buy prompt electricity before the prices spiked and subsequently sell the electricity back into the market, enjoying a profit.

From an economic perspective, insider dealing cases may involve a dispute as to whether the inside information at issue was in fact price-sensitive, which may bear on the legal question of whether investors considered information to be material.

NERA experts can assess the price sensitivity of information, employing statistical techniques to measure the effect of the release of the insider information on price, and controlling for

other factors that may also influence price. In carrying out and interpreting such an analysis, it is important to focus on the question of price-sensitivity at the time the alleged insider dealing occurred, as the value of information may be different at the time it is released to the market.

An estimate of the gain made or loss avoided by alleged insider dealing is often required by regulators or in civil litigation. In multiple jurisdictions, *event studies* have been used to estimate the price effect of inside information. As with an assessment of price sensitivity, an analysis of gain realised or loss avoided must isolate the value of inside information from price movements attributable to other factors.

### Market Manipulation

Market manipulation is trading behaviour that aims to artificially increase (inflate) or decrease (deflate) the price of an asset or market benchmark. The intention may be to enjoy a gain on trading in the instrument actually being manipulated or in a derivative referencing such an instrument. Market manipulation in the financial sector has received considerable attention in the past few years, driven by cases alleging rigging of benchmarks for interest rates (such as LIBOR) and foreign exchange rates.

The energy sector offers close parallels. Across Europe, a typical structure for long-term *Gas Supply Agreements* (GSAs) and *Power Purchase Agreements* (PPAs) is to set prices within those contracts based on trusted indices rather than fixed in absolute terms. A retail business could have a portfolio of *Combined Cycle Gas Turbine* (CCGT) plant contracted under long term PPAs, which refer to the average price of Platts<sup>3</sup> month-ahead assessment of the Gaspool<sup>4</sup> price, averaged over the previous month. The trading arm of that retail business then might have the incentive to bias Platts' assessment of the Gaspool price downwards, in order to reduce the price paid on its long term PPAs.

Moreover, allegations of benchmark manipulation may extend to gas and electricity assessments published, for instance, by Platts or ICIS Heren. Ofgem's open letter on REMIT enforcement referred to common market manipulation allegations, such as "*marking the close*".<sup>5</sup>

In cases alleging market manipulation, several types of analyses can be carried out. NERA experts can confirm whether the trading data is factually consistent with the alleged manipulation framework. In fact, the confirmation of the existence of a particular trading strategy does not necessarily mean it was manipulative. It might be the case that a strategy that appears to be disruptive or manipulative is legitimate, competitive, and rational market behaviour.

Finally, if a manipulative act has taken place, quantitative models can be employed to estimate damages and any harm to the markets. These models are used to approximate the exposure to counterparties and estimate the net impact from a manipulative event. For example, a market manipulation investigation can involve establishing a relationship between a leading event (e.g., an act of market manipulation) and a statistically and economically significant movement of the targeted financial instrument's price.

### **Misrepresentation or Omissions of information**

Misrepresentations, or non-disclosure of market-sensitive information that is legally required to be disclosed, may also artificially inflate or deflate the price of a security or asset whose value is affected by the information misstated or concealed. In financial markets, disclosure-related allegations often centre on statements or omissions by publicly traded companies that allegedly distort the price of the company's shares or other securities.

Under REMIT, energy companies are obliged to make certain categories of privately-held and price-sensitive information publicly available, and failure to do so will constitute market abuse. For instance, a gas storage operator could discover a need to temporarily decommission its storage facility during the winter period, but not disclose that information to the market. When the lack of reporting is discovered, market participants who were exposed to high balancing prices for failing to deliver enough gas claim that they would have purchased more flexibility if they had known about the likely shortage.

Identifying whether information not revealed to the market was material and would have moved the price is essentially an economic question, which relies on the same economic principles applied in financial abuse cases. In the case of a

storage outage, the impact on market prices depends on whether that storage facility would likely have been operating the period in question, and whether its operation would be sufficient to move the market price. Answering that question could involve modelling the dispatch of the specific storage facility based on prices on the day of the decision not to publish the information. The costs of operating storage include the costs of injection and withdrawal at the specific storage site, network charges incurred by the storage operator and the opportunity cost of emptying the storage on another, potentially-higher priced day.

## **Client Experience**

NERA experts have provided advice, analysis, and expert testimony in a broad range of actions related to market abuse, energy markets, and matters at the nexus of the two. For example, they have analysed trading patterns, suspicious price movement, suspicious trades, benchmarks, and market efficiency.

Moreover, NERA experts have decades of experience providing economic advice and testimony on energy markets and in the context of alleged market abuse. NERA economists have been retained and instructed both by market participants and regulators where they have been providing analysis and market insight in areas including trading, valuation, and financial regulation. We use quantitative and statistical tools in combination with real-world industry, trading and regulatory experience to provide objective analyses to address the allegations that arise in regulatory investigations and related cases. This work has included providing advice, analysis, and expert testimony in a range of power and gas investigations and enforcement, including:

- Submitting an expert report for a large international bank in a regulatory investigation regarding trading in OTC power markets;
- Submitting an expert report and affidavit for BP America in a regulatory matter involving the trading of natural gas swaps, physical gas and gas transportation on intrastate pipelines;

- Advisory work for Centaurus Energy Advisors LLC in a regulatory matter involving the possible manipulation of the market price of Natural Gas;
- Expert report in a CFTC investigation of the futures and C natural gas derivatives trading activities of an energy trading hedge fund; and
- Reviewed evidence of manipulation of a major European power exchange price using bottom-up simulation methods as part of submissions to the Directorate-General for Competition of the European Commission.

## Notes

- 1 See regulation No. 1227/2011 of the *European Parliament and of the European Council*, 25 October 2011, available at: <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32011R1227&from=EN>
- 2 REMIT has been in place since 2011. However, the *Agency for the Cooperation of Energy Regulators* (ACER), a European Union body in charge of relevant data gathering and market supervision, reported that REMIT will become more fully operational by 2016. This is likely to increase the volume of actions and enforcements in the European energy market. See "Probes of EU energy market abuse set to jump with Remit", by Stella Farrington, *Risk.net*, 24 September 2015, available at: <http://www.risk.net/energy-risk/news/2427240/probes-of-eu-energy-market-abuse-set-to-jump-with-remit>
- 3 Platts and ICIS Heren are providers of power, carbon and metals information used for benchmark assessment in the energy markets.
- 4 Gaspool Balancing Services GmbH is a market area manager for the German natural gas market.
- 5 "Prohibition of market abuse under the Regulation on wholesale energy market integrity and transparency (EU) No 1227/2011 (REMIT)", *Ofgem*, 8 September 2015, available at: <https://www.ofgem.gov.uk/ofgem-publications/96553/20150814remitopenletterseptember2015-pdf>

## About NERA

NERA Economic Consulting ([www.nera.com](http://www.nera.com)) is a global firm of experts dedicated to applying economic, finance, and quantitative principles to complex business and legal challenges. For over half a century, NERA's economists have been creating strategies, studies, reports, expert testimony, and policy recommendations for government authorities and the world's leading law firms and corporations. We bring academic rigor, objectivity, and real world industry experience to bear on issues arising from competition, regulation, public policy, strategy, finance, and litigation.

NERA's clients value our ability to apply and communicate state-of-the-art approaches clearly and convincingly, our commitment to deliver unbiased findings, and our reputation for quality and independence. Our clients rely on the integrity and skills of our unparalleled team of economists and other experts backed by the resources and reliability of one of the world's largest economic consultancies. With its main office in New York City, NERA serves clients from more than 25 offices across North America, Europe, and Asia Pacific.

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