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POTENTIAL MANIPULATION OF NATURAL GAS PRICES: CONSEQUENCES FOR ANTITRUST ANALYSES

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If the recent reports of price manipulation in the natural gas industry are true, how will economists be able to conduct meaningful empirical analysis regarding that industry? The answer may seem obvious, considering that once any component of an antitrust analysis is undermined, so too are its results. But determining whether prices were actually manipulated and if so, in what manner were they manipulated, is a multi-tiered task that will be key to effective antitrust analysis. More so than ever, good evidentiary detective work as well as rigorous empirical analysis encompassing multiple methodological approaches is required.

Did they or didn't they? Natural gas prices are reported by various trade publications (e.g., Gas Daily, Inside FERC) for markets all across North America. The trade publications collect data by surveying natural gas market participants on the prices paid and received in various transactions. These data then are aggregated and the prices reported on a daily and monthly basis. These reported prices are referred to as price indices.

Although apparently known by parts of the industry for some time, the potential for manipulation of natural gas price indices was

formally raised in a Federal Energy Regulatory Commission ("Commission") Staff report issued in August 2002. The Commission Staff expressed concern over the elevated level of natural gas price indices at the California border. The Staff report presented evidence of suspicious trading activity on Enron Online, an online trading service and reference point for many natural gas traders. These traders routinely would reference Enron Online and use its prices as a benchmark for their transactions. These transactions then would ultimately be reported to trade publications. The Staff report also expressed concern about how the trade publications validated the data received in their surveys. The Commission requested comments about the Staff report from natural gas industry participants on their views as to the validity of the price indices. The response was considerable with numerous reports, comments, declarations and affidavits filed at the Commission.

The Commission has not yet issued any formal order regarding the validity of the natural gas price indices. However, since the Staff report was issued:

1. Five major energy firms have come forward and admitted that their traders knowingly provided

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false price information to the trade publications or had engaged in wash trades for the purpose of, in part, altering the price indices.

2. The Commodity Futures Trading Commission issued, and ultimately settled, a civil enforcement action against Dynegy with a finding that Dynegy knowingly submitted false information in an attempt to skew price indices for its own financial benefit.

3. The U.S. Department of Justice announced indictments of two senior traders employed by Dynegy and El Paso.

4. The Commission has recommended that technical conferences be convened to explore solutions to the problems observed with the price indices.

5. The Commission also has suggested that it may be necessary for a government agency to assume authority for price reporting in the natural gas industry.

If they did, how will it affect antitrust analysis? Broadly speaking, antitrust analysis can be separated into two camps: structural and non-structural analysis. Structural analysis is based on the hypothesis that the structure (number of firms, concentration, ease of entry, etc.) of a market typically explains or determines the conduct of market participants and the performance of the market is an evaluation of its conduct. This type of analysis is very common and is used extensively by the Commission and other agencies in their review of such things as applications for market-

based rates and merger applications. Manipulation with respect to natural gas price indices would not directly impact a structural analysis simply because prices are not key variables in this type of analysis.

However, non-structural analysis typically includes price (be it firm, market, and/or industry) as a variable of interest. Non-structural analysis can include the use of reduced form price equations and supply and demand models, as well as correlation and co-integration techniques.

When natural gas price indices have been manipulated and thus the data are not accurate, one can think of each price point as consisting of two components. The first component would be the “true” price of natural gas whereas the second component would be the amount of error in measurement, which is equal to the extent of the manipulation. When a reduced form price equation is estimated using price data that has been manipulated, the statistical estimates will not be accurate.

Data measurement error and omitted variable bias normally are arcane econometric topics--certainly considerations in any non-structural antitrust analysis but generally not the focal points. The recent claims regarding manipulation of the natural gas price indices moves these topics to the forefront of empirical studies incorporating gas price indices. Investigators must consider the potential for data measurement error and/or omitted variable bias. It is incumbent upon the researcher to recognize and, if possible,

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account for the role that potential manipulation may have played in any price series that is used. Failure to do so can lead to poor study design and unreliable results.

Not surprisingly, the growing awareness of the manipulation of the natural gas price indices has served to impose far more scrutiny on any non-structural analysis (antitrust or

otherwise) that use these data. As a result, the importance of using structural antitrust analysis has been elevated greatly and the relative value of good evidentiary detective work has increased dramatically. These are things that must be considered when developing an antitrust analysis for any segment of the natural gas industry.