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Cross submission comments: draft decision of the Electricity Authority: alleged UTS on 26 March 2011

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Introduction

1. The Electricity Authority (EA) has invited comments on submissions made on its Consultation Paper: *Draft decision of the Electricity Authority under Part 5 of the Electricity Industry Participation Code regarding an alleged UTS on 26 March 2011* (draft EA decision). We have previously prepared three reports which were submitted to the EA by Mighty River Power. These three reports were:

   - Kieran Murray, Claimed undesirable trading situation 26 March 2011, 6 April 2011 (Kieran Murray, 6 April).
   - Toby Stevenson, Claimed undesirable trading situation 26 March 2011, 6 April 2011 (Toby Stevenson, 6 April).
   - Kieran Murray, Toby Stevenson, Sally Wyatt, Comments on draft decision of the Electricity Authority: alleged UTS on 26 March 2011 (13 May 2011 report).

2. To avoid repetition, we cross reference these reports as appropriate rather than repeat the analysis contained in those reports.

Summary of conclusions from previous reports

3. Our reports of 6 April advanced several key arguments that were picked up by the EA in its draft decision. These arguments are that:

   a) "The economic rationale for UTS provisions is to achieve operationally efficient and competitive markets" and because "market providers … cannot foresee all future eventualities and … some practices are particularly difficult to specify in the rules … [these practices] are better covered by generic UTS-type rules." (draft EA decision, paras 29 – 32; see para 11 to 18 of Kieran Murray 6 April report for reasons).

   b) "… Genesis' application of a squeeze on the wholesale market for electricity resulted in prices at exceptional levels in Hamilton and regions north of Hamilton." (draft EA decision, para 142; see para 44 of Kieran Murray 6 April report for reasons).

c) "the exceptionally high interim prices on 26 March are the result of a squeeze, which is an undesirable trading practice." (draft EA decision, para 144; see para 43 to 47 of Kieran Murray 6 April report for reasons).

d) "the remedy ought … to be directed at restoring prices … to the level they would have been had buyers … had the opportunity to arrange an alternative source of supply or to curtail demand." (draft EA decision, para 152; see paras 17 to 18 of Kieran Murray 6 April report for reasons).

4. In commenting on the draft EA decision in our 13 May report, we made several recommendations to improve the robustness of the decision. We suggested that:

I. It was unwise for the EA to place itself in the position of evaluating whether the actions of Participants did or did not breach statutes administered and enforced by other specialist regulatory agencies, in particular the Commerce Commission.

II. The EA's analysis may expose a weakness in the Code; that Part 5 of the Code placed a wide mandate on the EA to "correct" a UTS, but does not appear to provide the EA with the power to punish Participants for creating a UTS, nor to send signals to Participants about the required standard of behaviour by way of punitive precedents.

III. The EA should provide more guidance for the future by:
- Clarifying what might be meant by manipulative trading, and misleading or deceptive conduct within the rules; and
- Ensuring that anyone with an interest, Participant or not, has access to current information about wholesale prices or, at the very least, notification that preset price levels have been indicated by market processes.

IV. The EA did not apply its own proposed approach to remedy the UTS and that the price bands proposed by the EA of between $1,500/MWh and $3,000/MWh would be substantially higher (and therefore inefficient and not in the public interest) than prices that would have resulted in the absence of the squeeze and in circumstances where "*buyers had had the opportunity to arrange an alternative source of supply or to curtail demand*". Remedy prices could be established by the EA assuming:

- That existing generation, including Contact Energy's Taranaki Combined Cycle Plant and Genesis' e3p, offered into the market at prices just sufficient to operate profitably; and

- That demand responded to known prices.

Key concerns raised in submissions

5. In this section, we comment on concerns raised in submissions as they relate to the key conclusions reached by the EA in its draft decision and summarised in bullets (a) to (d) of paragraph 3 above. We consider first the key economic points made in the Genesis submission, and then consider any additional economic arguments raised in other submissions.

Castalia report

6. Genesis supports the economic arguments in its submission by reference to a report attached to its submission prepared by Mr Aleksandr Sundakov of Castalia Strategic Advisors.[1] Mr Sundakov makes the following points that are intended to challenge the key conclusions reached by the EA in its draft decision and outlined in (a) to (d) of paragraph 3 above (Mr Sundakov makes other points which do not seem relevant to these key conclusions and therefore, in the interests of brevity, are not addressed in this report). The primary arguments made by Mr Sundakov appear to be:

   a. "The UTS provisions [exist to] give participants confidence to transact in real time knowing that they will not be bound by outcomes that result from manifest errors in the dispatch algorithm, for example" (Castalia, para 9).

   b. "… occasional price spikes are necessary and desirable to … provide incentives for participants to manage risk, including through hedge and retail products" (Castalia, para 35).

[1] The Genesis submission references the Castalia report in support of its submission at paragraphs 6, 13, 14, 30, 49, 72, 78, 90, 105, 133 and in its covering letter.

c. "The expert witness statement provided by Kieran Murray and the Authority's draft decision do not establish that a price squeeze constitutes a UTS under the Code" (Castalia, para 59).

d. "… the components of a price squeeze are not present on the facts of this case" (Castalia, para 63).

e. "… if the draft decision stands it will tend to undermine the efficiency of the market as a whole and create a series of moral hazard problems" (Castalia, para 76).

7. We respond to each of these 5 points.

UTS should be construed narrowly

8. Mr Sundakov offers no support for his assertion that the UTS provisions should be interpreted narrowly to apply only to events such as "manifest errors in the dispatch algorithm". His comment lies in contrast to:

a. The work of Noble Laureate Ronald Coase, and other theoretical economists, who explain the role of market rules in deterring opportunistic behaviour and obviating the need for costly self-protective measures.[2]

b. The reality that all organised markets have rules similar to the UTS provisions of Part 5 of the Code, and the long precedence (in the case of the Chicago Board of Trade stretching back over 150 years) of interpreting these provisions as broad standards.

c. The practicality that not all undesirable trading situations can be identified in advance and that a clear standard is necessary (in the same manner that the road code prohibits dangerous driving without attempting to identify all possible forms of driving dangerously).

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[2] See for example references cited in Kieran Murray, 6 April report, including Ronald H Coase, *The Firm, The Market and The Law*, Chicago University Press, 1988, and Lester G Telser and Harlow N, Higinbotham, "Organized Futures Markets: Costs and Benefits", *Journal of Political Economy* 85, no. 5 (1977).

d. The economic efficiency of applying standards where it is not feasible to specify undesirable behaviour in advance or where the application of the rule may depend on the circumstances.[3]

9. The EA is on well proven ground in its description of the economic rationale for the UTS provisions in paragraphs 29 to 32 of the draft EA decision.

Price spikes are desirable to provide incentives to manage risk

10. There is no dispute that prices in wholesale electricity markets can be volatile giving rise to price and volume risks that need to be managed. However, it is quite another proposition to argue that increased price volatility is, of itself, a good thing; that greater volatility should be engendered so that participants are "prepared to pay a premium for certainty and predictability".[4] If Mr Sundakov's proposition were correct, market outcomes could be improved by, for example, the regulator randomly distorting prices up and down.

11. The correct proposition is that hedge and retail products are necessary and desirable to manage the risk of price spikes resulting from changes in supply and demand and not, as Mr Sundakov proposes, that price spikes are necessary and desirable to provide incentives for participants to manage risk through hedges and retail products.

A market squeeze not a "price squeeze"

12. Mr Sundakov argues that "the expert witness statement provided by Kieran Murray and the Authority's draft decision do not establish that a *price squeeze* constitutes a UTS under the Code" (emphasis added). Mr Sundakov's consistent reference through his report to a "price squeeze" is curious as that term is not used either in our reports or the draft EA decision. The draft EA decision concludes, and we agree, that a "market squeeze", or equivalently a "squeeze of the market", or just "squeeze", is a UTS.

13. The concept of a market squeeze has an established meaning in organised markets, as explained in our reports and in the draft EA decision. The term

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[3] See the analysis by Professor Lew Evans, The Implications of the 26 March 2011 price spike for dynamic efficiency of the NZEM, 28 April 2011, attached to Meridian's submission, and the theoretical work of Louis Kaplow, Rules Versus Standards: An Economic Analysis, 42 Duke L. J. 557 (1992), referenced in Kieran Murray, 6 April report.

[4] Aleksandr Sundakov, Expert Report on Draft Decision Finding an Undesirable Trading Situation on 26 March 2011, par 36 – 37, 41- 42.,

"price squeeze" has an established (and different) meaning in the anti-trust literature. A "price squeeze" is said to occur when a vertically integrated firm with market power (e.g., an integrated transmission and generation firm) charges too high a price for the monopoly service (in this example transmission) for an otherwise competitive entrant to compete with the nominally competitive part of the business (in this example, generation).[5]

14. Mr Sundakov appears to have muddled these two concepts when he observes that "one commentator in the United States has suggested that in the United States 'the price squeeze claim is almost certainly a losing one in a deregulated electricity power industry'".[6] This comment is made by a student in a paper reviewing *price* squeezes, not *market* squeezes; the central proposition in the paper is that in the relevant United States markets a firm must show that it does not have market power before it can charge market-based rates (rather than regulated rates) and therefore by definition the firm could not execute a price squeeze.[7] This may be an interesting proposition, but it has no bearing on whether a market squeeze is an undesirable trading situation or whether the concept of a market squeeze can apply in an electricity market.

15. Mr Sundakov suggests that the concept of a price squeeze in commodities has at least two components: the party effecting the squeeze is able to "name its price" and that the party "acquired the ability to name its price through intentional 'fraud and deception'". These are not the accepted tests for market manipulation or a squeeze, as discussed below. However, it is difficult to reconcile Mr Sundakov's view of what would comprise a squeeze – a participant being able to name its price through intentional fraud and deception – with his statement that the "Authority's draft decision [does] not establish that a price squeeze constitutes a UTS under the Code". It is difficult to conceive of a practical example of the situation described by Mr Sundakov as being anything but an undesirable trading situation.

Components of a squeeze

16. The settled standards for determining manipulation in the United States commodity markets are not the tests stated by Mr Sundakov but they are set

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[5] The seminal case is *United States v Aluminum Co. of America (Alcoa),* 148 F. 2d 416 (2d Cir. 1945).

[6] Aleksandr Sundakov, ibid, paragraph 70.

[7] Greg Goelzhauser, Price Squeeze in a deregulated electric power industry, Florida State University Law Review, Vol. 32:225, page 254.

out in a seminal decision cited by Mr Sundakov.[8] These standards were confirmed as recently as last year in a decision by the United States Supreme Court.[9] The tests are that:

a. The accused had the ability to influence market prices.

b. The accused specifically intended to do so.

c. Artificial prices existed (artificial prices are defined as a "price which does not reflect the basic forces of supply and demand"[10]).

d. The accused caused the artificial price.

17. Each of these tests were made out in the draft EA decision, as summarised in table 1 below:

Table 1. Applying settled tests of market manipulation

Test	Draft EA decision / analysis available to the EA
Accused had ability to influence market price	EA concludes Genesis was in net pivotal position. A net pivotal supplier has a substantial incentive and ability to exercise unilateral market power to influence price.[11]
Accused specifically intended to influence price	Genesis told the EA that "ultimately, however, the offers were made in response to [Genesis'] view of market conditions at the time" (para 57(e)). These market conditions included that "Genesis knew it was net pivotal" and "knew the exact amount by which its high price offers were being dispatched" (para 126)
Artificial prices existed	EA concludes that "the high interim prices on 26 March 2006 are not the result of some underlying supply-demand imbalance, e.g. inadequate capacity or fuel, and they appear to bear no resemblance to any underlying or avoidable cost" (para 135) and

[8] The full reference is: *Cox In re* [1986-1987 Transfer Binder] Comm. fut. L. Rep. (CCH) 23,787 9CFTC July 15, 1987

[9] Anthony Di Placido v Commodity Futures Trading Commission, Supreme Court of the United States, No. 09-669, available at: http://www.justice.gov/osg/briefs/2009/0responses/2009-0669.resp.pdf

[10] *Cargill v Hardin* 452 F.2d 1154 (8th Cir. 1971), 1163.

[11] For a technical explanation of ability of a generator in a net pivotal position to influence prices, see Frank A. Wolak, Stanford University, "An assessment of the performance of the New Zealand wholesale electricity market", prepared for the New Zealand Commerce Commission, paras 165-193.

	that "the evidence is that the interim prices of 26 March greatly exceeded the marginal value of consumption for many TOU consumers…" (para 139)
The accused caused the artificial prices	EA analysis showed "Genesis Huntly plant was in a net pivotal position, and its Huntly offers determined wholesale prices in the North Island" (draft EA decision, para 124)

18. From the literature and case law, two additional conditions appear necessary for market manipulation to attract the label of a market squeeze. The first is that the accused had gained control, or substantial market power, in the relevant commodity market.[12] In a squeeze, as opposed to a corner, there does not need to be an effort by the accused to obtain market power, but supply may be low relative to demand for other reasons.[13] There does not appear to be any disagreement among submitters or the EA that Genesis had substantial market power on 26 March.

19. The second additional condition for market manipulation to attract the label of a squeeze appears, on our reading, to be stated more explicitly in the literature than in case law. As discussed in Kieran Murray, 6 April, Professor Richard Friedman distinguishes a squeeze from ordinary use of market power because in a squeeze the buyer must pay the inflated price or suffer severe sanctions.[14] Ordinarily, the sales by a monopolist would be at a price no higher than the value of the article to the buyer, because at a higher price the buyer would simply do without. The squeezer, by contrast, takes advantage of the purchaser who is in a position of having to pay an artificially high price (by either purchasing physical commodity or an offsetting contract) or face severe penalties for default under the market rules.

20. In Kieran Murray 6 April report, we observed that the activities on 26 March bore strong similarities to a classic commodity market squeeze. We observed that:
    a. "Genesis had gained a temporary dominant position in the supply of electricity north of the constraint; Genesis had gained a corner on the physical market.

[12] Cargill v Hardin 452 F.2d 1154 (8th Cir. 1971), 1163.
[13] CFTC v Enron Corp., No. H-03-909, 2004 BL 2940, *7 (S.D. Tex. Mar. 9, 2004).
[14] Richard Friedman, Stalking the squeeze: understanding commodities market manipulation, Michigan Law Review, Vol 89: 30, October 1990, p 40.

b. Genesis appears to have altered its trading position to ensure price separation above and below the constraint; this gave Genesis the ability to set prices at an unprecedented "high" level North of the constraint.

c. These price changes were not well signalled to consumers in advance and took effect over a time period when it was almost impossible for consumers to respond; many consumers did not learn of the prices until after the event.

d. Mighty River Power, and others, were obliged to pay the extremely high prices for electricity taken by consumers (who were unaware of the price change), or face severe penalties for default.

e. The primary alternative to paying the high prices set by Genesis would be for market participants to buy a hedge from Genesis at a price set by Genesis; Genesis appears to have secured high (relative to prices prevailing prior to the squeeze) prices for hedges for the weekend of 2 April when Genesis could similarly corner the physical market."

21. The investigations presented in the draft EA decision, and the additional information contained in submissions, reinforce each of these points. In particular:

a. The EA found that Genesis was in a net pivotal position and that it knew it was net pivotal.

b. The EA found that the interim prices "greatly exceeded the marginal value of consumption for many TOU consumers" (that is, the events were not simply just a matter of ordinary use of market power when supply was tight relative to demand).

c. If the interim prices were confirmed, many participants would have to pay these "artificial prices" or face severe penalties for default.

d. We understand that hedge prices offered by Genesis for the most recent transmission outage (of a similar severity to 26 March) on 14 May were priced at about 1/5th of those offered prior to the events of 26 March and 1/100th of those offered to Meridian during the squeeze.

22. We reiterate our view that the events of 26 March are best characterised as a market squeeze. The squeeze distorted prices for wholesale electricity and for short-term hedges. No organised commodity market should permit a squeeze. As US Eighth Circuit Court observed in the precedent setting *Cargill* case: "We cannot conceive that any useful purpose would be served by encouraging such conduct in the future."[15]

23. Mr Sundakov may be correct in saying that he is "not aware of any other competitive wholesale electricity market that applied the concept of … squeeze". However, if this is the case, it is probable that the controls in these other markets have prevented a squeeze being effected. A high profile example is the settlement reached by Reliant when it agreed to pay $22.2 million to settle charges that the company manipulated California wholesale electricity prices in 2000 by:[16]

   a. Submitting electricity bids to the power exchange at high prices believing that they would not be accepted.
   b. Shutting down power plant for two days for the purpose of increasing electricity prices.
   c. Spreading false information in the marketplace to justify the company's reduced production and to create the impression that the reduction in power supply was the result of market forces.

24. In appendix 1, we provide a summary of whether Genesis's conduct on 26 March 2011 would be prohibited in the Australian National Energy Market.

Efficiency of the market as a whole and moral hazard problems

25. Mr Sundakov argues that if the draft decision stands it will tend to undermine the efficiency of the market as a whole and create a series of moral hazard problems. Mr Sundakov proposes that the draft decision (if confirmed) will:[17]

   a. Adversely affect the depth and liquidity of hedging.
   b. Encourage consumers to take spot exposure when they are not well placed to take the risks.
   c. Create uncertainty over future offer behaviour.
   d. Adversely affect new investment in generation.

26. These propositions stem from a fundamental misapprehension of the role of prices in a market and the consequences of manipulating those prices. Market prices are a means of ensuring that scarce resources are channelled to their

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[15] *Cargill v Hardin* 452 F.2d 1154 (8th Cir. 1971), paragraph 109.
[16] US v Reliant energy Services (and others) No. CR 04-0125 VRW, deferred prosecution agreement, March 2007. Reliant admitted that it had engaged in these practices to artificially increase wholesale electricity prices to avoid trading losses.
[17] Aleksandr Sundakov, ibid, paragraph 70.

highest value use, and that scarce resources are used by those who place the highest value on them. In this context, prices are primarily a means of collating and conveying information between suppliers and users, and thereby helping solve the central problem of economics – how to secure the best use of resources controlled by individual members of society for ends whose relative importance only those individuals know.[18] Price discovery achieves this outcome by conveying information about the demand for a service and the cost of its supply.

27. Market manipulation distorts these price signals. As the US Supreme Court comments in the case cited earlier in this report, "uneconomic trading for the purpose of manipulating prices is analogous to spreading misinformation".[19] The market inefficiencies and moral hazard problems identified by Mr Sundakov will compound if grossly artificial prices resulting from a squeeze were to be confirmed.

28. Prices discovered in wholesale markets are "affected with the public interest", because they inform a multitude of decisions and not just the decisions of trading Participants.[20] In this regard, I disagree with Mr Sundakov's view that the EA should only consider the impact on trading Participants (though he also argues that effects on hedge markets should be considered which extends the scope to parties that may hold hedges).[21]

29. Mr Sundakov presents a hypothetical example at paragraph 87 and suggests that the draft EA decision (if confirmed) would "create considerable uncertainty for future generator offers".[22] Mr Sundakov appears concerned that a UTS finding would sweep in legitimate economic activity. The test for market manipulation includes whether an accused party intended to create

[18] Hayek, F.A. (1936) 'Economics and Knowledge', Presidential address, London Economics Club.

[19] Anthony Di Placido v Commodity Futures Trading Commission, ibid, p 10. "Uneconomic trading" does not of course mean unprofitable, as that would imply that manipulation only occurred if traders lost money.

[20] The term "affected with the public interest" is used in economics and law literature to refer to an activity that provides an essential service and has its origin in common law. The term is used explicitly in judgements against parties manipulating price discovery for commodities, see for example Anthony Di Placido v Commodity Futures Trading Commission, ibid.

[21] Aleksandr Sundakov, ibid, paragraphs 10, 13-18, 26.

[22] Aleksandr Sundakov, ibid, paragraph 87.

artificial prices; that is, intended to create prices that do not reflect the basic forces of supply and demand.

30. Improper motive in relation to prices can constitute market manipulation in the absence of fraud or deceit. The test is whether the accused party intended to undermine the legitimacy of the signals regarding value or worth that are the heart of price discovery. Wrongful intent distorts legitimate forces of supply and demand that are otherwise assumed in an organised market to have created prices. The US Courts have explained it this way:

> *"Because every transaction signals that the buyer and the seller have legitimate economic motives for the transaction, if either party lacks that motivation, the signal is inaccurate. Thus a legitimate transaction combined with improper motive is commodities manipulation.*[23]

31. It is the intentional distortion of market prices that poses the primary threat to legitimate market functions, not the threat of the regulator to intervene if Participants set out to manipulate prices.

EA is not setting a price cap

32. A theme raised by several submitters is that the draft EA decision, if confirmed would cap wholesale electricity prices. These submissions seem to misinterpret the EA's reason for re-setting the wholesale prices - a confusion not helped by the EA proposing a method for re-calculating prices that would not achieve its intention to restore prices to the level they would have been had buyers had the opportunity to arrange an alternative source of supply or to curtail demand.

33. The EA did not propose to re-calculate prices simply because they were too high. The EA and most submitters seem to agree that price level (high or low) is not on its own a UTS. The EA proposes to re-calculate the interim prices for specified periods on 26 March because those interim prices were 'artificial'; the prices were not an outcome of supply and demand but the result of a market manipulation known as a squeeze.

34. This decision does not prevent prices from rising, or falling, to whatever level is needed to balance supply with demand. In an electricity market, in which electricity cannot be stored economically, prices at the margin should be free to rise or fall to the short-run marginal *opportunity cost* of supply – when existing

[23] In re Amaranth Natural Gas Commodities Litig., 587 F. Supp. 2d 513, 530 (S.D.N.Y 2008).

capacity becomes constrained, the opportunity cost of electricity is the price point at which sufficient consumers would voluntarily take their next best alternative rather than consume an extra unit so that limited supplies are efficiently rationed among customers. Nothing in the draft EA decision interferes with this economic concept of pricing.

35. The EA, however, has (correctly) signalled that it will intervene if a UTS arises from prices being set which do not reflect the basic forces of supply and demand – that is, it will intervene if the market has ceased to work as a process of price discovery and becomes a means of exploitation (of either generators or purchasers).

36. To improve understanding the EA should consider publishing a guide to help inform participants about manipulative trading practices. As an example, we have attached, as appendix 2, a Bloomberg Law Report which succinctly describes market manipulation in commodity markets.

Appendix 1. Would Genesis Energy's conduct on 26 March 2011 be prohibited in the Australian National Energy Market?

1. It seems likely that the electricity trading by Genesis Energy relating to the 26 March 2011 Undesirable Trading Situation (UTS) would be prohibited in the Australian National Electricity Market, under Chapter Three of the National Electricity Rules (NER), were the activity to be undertaken in that market. This reflects evidence adduced in the draft EA decision that Genesis Energy: [24]
    a. engaged in extensive modifications to its supply offers for both Huntly and Tokaanu in relation to trading periods associated with scheduled transmission outages in the upper half of the North Island; and
    b. these modifications were not made in response to changes in 'material conditions'.
2. In the NER, generators are required to make 'a dispatch offer, dispatch bid or rebid in relation to available capacity and daily energy constraints in good faith.'[25] A dispatch offer, bid or rebid is 'taken to be made in good faith, if at the time of making such offer, bid or rebid, the [generator or other market participant] has a genuine intention to honour that offer, bid or rebid if the material conditions upon which the offer, bid or rebid were based remains unchanged until the relevant dispatch interval.'[26]

3. Clause 3.8.22A of the NER was introduced into the National Electricity Code in 2002.[27] The measures specifically sought to improve the reliability of pre-dispatch forecast prices and to address concerns about the ability of generators

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[24] Refer to the Energy Authority Draft Decision dated 6 May 2011 and in particular the summary of events on page 20-21 and Figures 2-9.

[25] Refer to Clause 3.8.22A(a) of version 43 of the NER available at: http://www.aemc.gov.au/Electricity/National-Electricity-Rules/Current-Rules.html

[26] Refer to Clause 3.8.22A(b) of the NER.

[27] Following the Parer Committee reforms, the National Electricity Code was transformed into the NER.

to influence spot prices and limit opportunities for competitive responses to dispatch offers, including demand response. [28]

4. This Rule has subsequently been strengthened, including by way of a Rule change submitted by the Australian Energy Regulator (AER). The Australian Energy Market Commission (AEMC) described the AER's proposal as intended to 'limit the ability of relevant scheduled generators and market participants to bid and rebid technical parameters in pursuit of commercial objectives when power system security could be compromised.' [29] Following the Rule change in 2009, the AER issued an associated Guideline. [30]

5. It is clear from the Guideline that the AER's expectation is that rebidding will involve market related events external to the bidder and physical events (for example unplanned outages) that are internal to the bidder. Further, the Guidelines make clear that the timing of the event which caused the rebid is not the time at which the decision to make the rebid was made, but the time at which the relevant event(s) or occurrence(s) and which the participant adduced as the reason for the rebid occurred.[31] Pre-dispatch market prices and competitor offers for a given trading interval do not constitute "events" in the sense used by the AER Guideline.

6. In summary, the NEM arrangements on rebidding seek to maintain the integrity of energy trading in the NEM and to ensure that market participants are unable to engage in "gaming" the generator dispatch process for commercial advantage. The Rebidding Rule and AER Guideline seek to draw a distinction between:
    a. Good faith bids and rebids in response to changing external and internal 'material conditions', but consistent with the intent of the original bid; and

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[28] Refer to page one of a NECA notice on changes to bidding and rebidding rules dated January 2003, available at: http://www.aer.gov.au/content/index.phtml/itemId/656303

[29] Refer to page 13 of the AEMC's Final Rule Determination – Ramp Rates, Market Ancillary Services and Dispatch Inflexibility, dated 15 January 2009.

[30] The Guideline is available at http://www.aer.gov.au/content/item.phtml?itemId=730885&nodeId=616772fff69c3789327af550cc9227df&fn=Rebidding%20and%20Technical%20Parameters%20Guideline.pdf

[31] Ibid., page 11.

b. Non-good faith bids designed to modify the original bid in the absence of change in 'material conditions' for the purpose of gaining commercial advantage.

7. On the analysis provided in the EA's Draft Decision, it appears that Genesis' conduct in modifying its offers on several occasions in the lead up to the key trading intervals on 26 March 2011 were not good faith bids and rebids in response to changing material conditions, consistent with the intent of the original bids. Rather, the analysis in the Draft Decision suggests that Genesis modified or rebid its offers to secure its 'net pivotal position'.[32] If so, such conduct appears that it would, if it occurred in the NEM, be in breach of the NER requirement that bids and rebids must be made in good faith.

8. The prohibition against non-good faith bids and rebids is a civil penalty provision for the purposes of the National Electricity Law and the AER may also seek alternative remedies.[33]

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[32] Refer to Box 1 on page 32 of the EA Draft Decision of May 2011.

[33] See clause 6(2) of the National Electricity (South Australia) Regulations.

Appendix 2: Beyond Supply & Demand: manipulation in the Commodities Markets

Beyond Supply & Demand: Manipulation in the Commodities Markets

Thomas B. Hatch and Thomas C. Mahlum, Robins, Kaplan, Miller & Ciresi L.L.P.

The Commodity Exchange Act (CEA) makes it unlawful for anyone to manipulate—or try to manipulate—the price of a nationally traded commodity. The Commodity Futures Trading Commission (CFTC), which regulates commodity futures and options markets, has significantly increased its enforcement filings and investigations of alleged instances of market manipulation in the last two years. For example, reports indicate that the CFTC is currently investigating the silver market and certain energy markets for potential manipulation.

Yet, individual claims for manipulation remain relatively uncommon. The CEA allows traders who suspect manipulation as the source of their losses to sue the person or group they think tried to influence market prices. To succeed, these claims need to show the creation of an artificial market price. Proving artificial price means demonstrating that something other than legitimate market forces affected a commodity's price during the period of alleged manipulation. Sometimes an otherwise legitimate transaction may run afoul of the CEA if it is combined with an improper motive.

Understanding Manipulation

The CEA prohibits the manipulation or attempted manipulation of the price of commodities and futures contracts and the prohibition may be enforced by the CFTC or a private party.[1] The CEA does not define the term "manipulate." The CFTC and federal courts agree that manipulation means the intentional creation of an artificial price by forces other than supply and demand, but no more definite a test exists.[2] Instead, manipulation cases tend to require a fact-specific, case-by-case analysis.[3] As stated by the Eighth Circuit Court of Appeals:

> [T]he test of manipulation must largely be a practical one if the purposes of the Commodity Exchange Act are to be accomplished. The methods and techniques of manipulation are limited only by the ingenuity of man. The aim must be therefore to discover whether conduct has been intentionally engaged in which has resulted in a price which does not reflect basic forces of supply and demand.[4]

The two most discussed forms of market manipulation are the market "squeeze" and the market "corner." A corner occurs, for example, when a dominant market player has a near monopoly holding of a cash commodity and also holds "long" futures contracts to buy in excess of the amount of the commodity actually available. The shorts—who must either provide the commodity or find offsetting long contracts to meet their future "sell" obligations—are then cornered into paying the price dictated by the dominant market player.[5] In a squeeze, there may not be an effort to obtain an actual monopoly of the cash commodity, but supplies are low for other reasons and open interests on the futures market considerably exceed that supply.[6]

Manipulation cases may also involve fraud, deceit, the use of false information or violation of exchange rules. For example, in *United States v. Reliant Energy Servs.,*[7] a criminal case, a trader/supplier was accused of using deceit and misinformation to manipulate the California electricity market. To avoid losses on a long position and increase the price of electricity, the trader/supplier sought to create the appearance of an electricity shortage. The claimed manipulation included unnecessary plant shutdowns and the withholding of available electricity as well as dissemination of false and misleading rumors and information about available electricity to market participants. The allegations were sufficient to sustain criminal indictments.

But actionable manipulation does not have to include fraud or a "corner" or "squeeze". Legitimate transactions coupled with illegitimate intent or improper motive can also constitute market manipulation under the CEA.[8] Improper motive can serve as the basis of a claim for manipulation because motive is directly related to the legitimacy of the signals regarding value or worth that are the heart of a true market price. Wrongful intent distorts the legitimate forces of supply and demand that are otherwise assumed to have created the market price. The court in *In re Amaranth Natural Gas Commodities Litigation* gave this explanation: "Because every transaction signals that the buyer and the seller have legitimate economic motives for the transaction, if either party lacks that motivation, the signal is inaccurate. *Thus a legitimate transaction combined with improper motive is commodities manipulation*."[9]

Proving an Improper Motive Market Manipulation Claim

Under the CEA a claim for market manipulation exists when (1) the defendant possessed an ability to influence market prices; (2) an artificial price existed; (3) the defendant caused the artificial price; and (4) the defendant specifically intended to cause the artificial price.[10] A manipulation claim involving a legitimate transaction combined with an improper motive must satisfy each of these elements.

Proof of intent and artificial price are interrelated—especially when the claimed manipulation rests on improper motive. Artificial price is defined as one which does not reflect the basic forces of supply and demand, though there is no universally accepted measure or test of price artificiality.[11] Instead, courts look to:

> [T]he aggregate forces of supply and demand and search for those factors . . . which are not a legitimate part of the economic pricing of the commodity. . . . [W]hen a price is [a]ffected by a factor which is not legitimate, the resulting price is necessarily artificial. Thus, the focus should not be as much on the ultimate price as on the nature of the factors causing it.[12]

Wrongful intent can be a factor causing artificial price. For example, if a buyer on a commodities exchange intentionally pays more than required for the purpose of causing the price to be higher than it otherwise would, the resultant price has not been determined solely by the forces of supply and demand and is, consequently, artificial.[13] Proving intent requires demonstrating that "the accused acted . . . with the purpose or conscious object of causing or effecting a price or price trend in the market that did not reflect legitimate forces of supply and demand."[14] Intent is generally estab lished inferentially from the conduct surrounding the alleged manipulation, most often through circumstantial evidence.[15] The intent to influence market price at an amount other than what would normally prevail is intent to create an artificial price.[16]

The link between improper motive and artificial price has been discussed in a number of manipulation cases involving otherwise legitimate market transactions. In *In re Henner*[17] a trader bought eggs right before the closing bell on a particular day and, for the purpose of increasing the closing price, bid at a price substantially above where the previous transactions had occurred. The reviewing judicial officer deemed that the trader's intent resulted in an artificial price.[18] In *CFTC v. Enron,*[19] the CFTC alleged a scheme among Enron traders to manipulate the natural gas market. The court refused to dismiss the CFTC's complaint finding the "buying spree" at the heart of the manipulation allegation helped establish both artificial price and intent to cause the price. In *Anderson v. Dairy Famers of America*[20] a dairy collective allegedly bought cheese in effort to shore up prices and protect a long position in a related market. The *Anderson* court found that to determine the existence of an artificial price for the purposes of a CEA manipulation claim, the appropriate inquiry "is whether the specific facts of a case support a finding that the commodity price was determined by forces other than legitimate supply and demand and whether a defendant intended to cause that artificial price."[21] Making the connection between an intention to cause an artificial price and the existence of an artificial price will necessarily requires a fact-specific, case-by-case analysis, given the near limitless possible underlying reasons and methods and techniques of manipulation.[22]

Market manipulation claims involving improper motive also require proof of an ability to influence prices and causation of an artificial price. Like artificial price and intent, ability and causation are related.[23] Market control is not necessary. Buying or selling large amounts of a commodity, particularly in a concentrated time period can show both an ability to influence price and causation of an artificial price, especially in thinly traded markets.[24] In *In re Amaranth*, a group of natural gas traders acquired a large number of long contracts and began a practice of selling off a significant number of them in the last half hour of trading in order to depress market prices to benefit a position held in another market. The court found that ability to control the market and causation of an artificial price had been adequately pled on allegations that the traders' scheme depressed the price of gas during the time the traders controlled 40% of the outstanding gas futures on the market during the relevant time period and executed 70% of the market's trades.[25]

Conclusion

Market prices for commodities and futures should reflect the legitimate forces of supply and demand. Market manipulation occurs when traders leave genuine economic purpose behind and seek to distort a natural market price. Transactions involving actual risk to the buyer or seller are not spared from the market manipulation inquiry. When combined with an ability to influence prices, actual risk-taking transactions motivated by a wrongful intent that cause an artificial price may qualify as actionable manipulation under the CEA—potentially allowing recovery by individual traders harmed by the manipulation as well as civil and other penalties imposed by the CFTC.

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[1] 7 U.S.C. §§ 13(a)(2), 13(b), 25(a)(1). In addition, Section 753 of the Dodd-Frank Wall Street Reform and Consumer Protection Act amends the CEA to prohibit any person using or attempting to use any manipulative or deceptive device or contrivance in connection with any swap, contract of sale of any commodity in interstate commerce, or contract for future delivery on or subject to the rules of any registered entity. The text of the new section is patterned after Section 10(b) of the Securities Exchange Act of 1934, which has been interpreted by courts to cover intentional or reckless conduct that deceives or defrauds market participants.

[2] *See, e.g., Frey v. CFTC,* 931 F.2d 1171, 1175 (7th Cir. 1991).

[3] *See, e.g., In re Soybean Futures Litig.,* 892 F. Supp. 1025, 1044 (N.D. Ill. 1995).

[4] *Cargill, Inc. v. Hardin*, 452 F.2d 1154 (8th Cir. 1971).

[5] *Cargill*, 452 F.2d at 1162.

[6] *CFTC v. Enron Corp.,* No. H-03-909, 2004 BL 2949, *7 (S.D. Tex. Mar. 9, 2004).

[7] *United States v. Reliant Energy Servs. Inc.,* 420 F. Supp. 2d 1043, 1058-60 (N.D. Cal. 2006).

[8] *In re Amaranth Natural Gas Commodities Litig.*, 587 F. Supp. 2d 513, 530 (S.D.N.Y 2008).

[9] *Id.* at 534. (Emphasis added).

[10] *Id.* at 530. *See also Anderson v. Dairy Farmers of America, Inc.*, No. 08-4726, 2010 BL 228930 (D. Minn. Sept. 30, 2010).

[11] *In re Soybean Futures Litig.***,** 892 F. Supp. 1025, 1047 (N.D. Ill 1995).

[12] *In re Ind. Farm Bureau Coop Ass'n,* [1982-1984 Transfer Binder] Comm. Fut .Law. Rep. (CCH) ¶21,766 at 27,288 n.2.

[13] *Enron,* No. H-03-909, 2004 BL 2949 at *10.

[14] *Indiana Farm Bureau,* ¶ 21,796 at 27,283.

[15] *Id*.

[16] *Reliant Energy,* 420 F. Supp. at 1058-59.

[17] *In re Henner*, 30 Agric. Dec. 1151 (1971).

[18] *Id.* at 1198.

[19] *Enron,* No. H-03-909, 2004 BL 2949 at *8-9.

[20] *Anderson,* No. 08-4726, 2010 BL 228930.

[21] .*Id* at *10-11.

[22] *Cargill,* 452 F.2d at 1163.

[23] *In re Amaranth,* 587 F. Supp. 2d at 530.

[24] *See Enron,* No. H-03-909, 2004 BL 2949 at *9.

[25] *In re Amaranth,* 587 F. Supp. 2d at 523.