

## **Questions and Answers relating to the Electricity Authority's decision that the events of 26 March 2011 constitute an undesirable trading situation (UTS)**

### **What did the claims of a UTS on 26 March 2011 relate to?**

1. Prices on the wholesale electricity spot market went as high as approximately \$20,000 per megawatt hour (MWh) over several hours for Hamilton, and regions north of Hamilton, on Saturday, 26 March 2011 when the national grid operator, Transpower, closed part of the grid to upgrade its lines into Auckland.

### **Who made the claims?**

2. The Electricity Authority (Authority) received 35 claims that a UTS existed on 26 March 2011 from:
  1. ABE'S Real Bagels Ltd,
  2. Air New Zealand
  3. ASB Bank Ltd
  4. Auckland War Memorial Museum
  5. Chris Brady
  6. Bupa Care Services
  7. Convex Plastics Ltd
  8. Cynotech Holdings Ltd, and subsidiaries
  9. Fletcher Building Limited (including on behalf of Golden Bay Cement)
  10. Goodwood Industries Limited
  11. (SmartPower on behalf of) Juken NZ Ltd
  12. Masterton District Council
  13. MercyAscot Hospitals
  14. Meridian Energy Limited
  15. Mighty River Power Limited
  16. New Zealand Steel Limited
  17. Nufarm NZ Ltd
  18. NZ Sugar
  19. Open Country Dairy Ltd
  20. PMP Print
  21. Powershop New Zealand Limited
  22. Prime Energy Limited
  23. Smart Power Ltd
  24. Southern Cross Hospitals Ltd
  25. Southern Spars
  26. Switch Utilities Limited
  27. Telecom (via Chorus)
  28. Television New Zealand Limited
  29. The New Zealand Refining Company Limited
  30. Total Utilities Management Group Ltd
  31. Vital Healthcare Property Trust
  32. Vodafone NZ Ltd
  33. Wallace Corporation Ltd
  34. Waratah Farms Ltd
  35. Westpac (NZ) Limited.

## What is a UTS?

3. A UTS is defined in the Electricity Industry Participation Code (Code) as follows:

*“undesirable trading situation means any contingency or event—*

*(a) that threatens, or may threaten, trading on the **wholesale market for electricity** and that would, or would be likely to, preclude the maintenance of orderly trading or proper settlement of trades; and*

*(b) that, in the reasonable opinion of the **Authority**, cannot satisfactorily be resolved by any other mechanism available under this Code; and*

*(c) includes, without limitation,—*

*(i) manipulative or attempted manipulative trading activity; and*

*(ii) conduct in relation to trading that is misleading or deceptive, or likely to mislead or deceive; and*

*(iii) unwarranted speculation or an undesirable practice; and*

*(iv) material breach of any law; and*

*(v) any exceptional or unforeseen circumstance that is at variance with, or that threatens or may threaten, generally accepted principles of trading or the public interest”*

## Who is responsible for deciding whether a UTS has occurred?

4. Under the Code, the Authority has sole responsibility to determine whether a UTS has occurred. The Authority is entitled to investigate any matter that it suspects or anticipates might be a UTS. A finding by the Authority is what determines whether the situation is a UTS or not.

## What is the process for deciding a UTS?

5. The Authority's Board meets as the UTS Committee to receive an initial claim of a UTS. The Authority may require further information from the claimant and consult experts and/or the parties involved in the matter.
6. If the Authority decides a UTS does exist or is developing, the Authority must consider what actions, if any, it needs to take to correct the UTS and restore normal operation of the market.
7. The Authority must consult the system operator if its intended actions have an impact on system security issues. If practical, the Authority must consult participants on its intended actions and the Authority must notify participants of its findings and intended actions.
8. Once a course of action has been decided and implemented, the Authority will ordinarily monitor the outcome to ensure the UTS has been corrected, or whether any other action is required.

## **Who can complain to the Authority about a UTS?**

9. Anyone may complain to the Authority about a UTS or potential UTS.

## **Does every complaint have to be investigated?**

10. There is no requirement on the Authority to investigate every complaint of a UTS or potential UTS. However, as the Authority is the sole decision-maker as to whether a UTS exists or is developing, it considers every complaint received.

## **Why has the Authority decided the 26 March events were a UTS?**

11. The Authority has decided a UTS developed on 26 March 2011 because:
  - a) the events on that day threatened, or may have threatened, trading on the wholesale market for electricity and would, or would be likely to, have precluded the maintenance of orderly trading or proper settlement of trades (in particular, the events included the undesirable situation that the wholesale market for electricity was squeezed and resulted in an exceptional and unforeseen circumstance that threatened, or may have threatened, generally accepted principles of trading and the public interest); and
  - b) the event cannot satisfactorily be resolved by any other mechanism available under the Code.
12. The reasons for the Authority's decision may be summarised as follows:
  - a) Genesis Energy's generation offers set the market prices for Hamilton and regions north of Hamilton during trading periods 22 to 35 on 26 March 2011 and parties exposed to prices in the wholesale market for electricity in those regions had good reason to believe the exceptionally high offer prices at Huntly for those trading periods would not translate into market prices, until it was too late for them to take action to avoid incurring liability to pay the prices. In the circumstances of a combination of transmission outages, inaccurate forecast market prices (caused by inaccuracies in the underlying demand forecasts used to generate them), and Contact Energy's removal of 425MW of generation capacity at Stratford, Genesis Energy was able to squeeze the wholesale market for electricity; and
  - b) the high interim prices on 26 March 2011, if they are allowed to become final prices, threaten to undermine confidence in the wholesale market for electricity, and threaten to damage the integrity and reputation of the wholesale market for electricity.

## **What does this mean for the parties involved?**

13. The Authority proposes final prices for the relevant trading periods on 26 March 2011 be determined as follows:
  - a) the scheduling, pricing and dispatch (SPD) market-clearing software be re-run to calculate a new set of final prices (and final reserve prices) with the following revisions made to the SPD inputs:
    - i. for Genesis Energy's Huntly generation, all offer tranches with prices exceeding a price of \$3,000 during trading periods 22 to 35 on 26 March 2011 be priced at \$3,000; and

- ii. for Genesis Energy's Tokaanu, Rangipo and Tuai generation, and Mighty River Power's Waikato generation, all offer prices and quantities be restored to the offer structure in the WDS published at 09:00 hours on 25 March 2011 for trading periods 22 to 35 on 26 March 2011; and
- b) calculation of constrained on amounts for trading periods 22 to 35 on 26 March 2011 be curtailed, so that no constrained on compensation will be paid in respect of generation plant in the North Island.

### **What happens next?**

- 14. Under the Code, the Authority is required to consult on any remedial actions it intends to take to correct a UTS. Accordingly, participants and interested parties are invited to make submissions on the proposed remedial actions. Pending the conclusion of the consultation process, the Authority will not make further comment on proposed remedies.
- 15. Submissions must be received by 5pm on Tuesday, 21 June 2011.
- 16. Subject to the content of submissions, the Authority expects to make a final decision on remedial actions at the end of June.

### **Why is the Authority consulting twice?**

- 17. The first consultation was on the Authority's draft decision. Having now reached a final decision that the events of 26 March constitute a UTS, the Code requires the Authority to consult participants regarding the actions it intends to take to correct the UTS.

### **Will finding that a UTS exists on 26 March 2011 create regulatory uncertainty and be inconsistent with the Authority's statutory objective?**

- 18. Regulatory discretion, if exercised consistently with a robust and clear economic framework, should improve regulatory certainty for participants. For the reasons outlined in the final decision, allowing the interim prices to become final prices would have increased uncertainty in the spot market as it would signal that generators that find themselves in a net pivotal position<sup>1</sup> could set whatever prices they wished regardless of whether there was a genuine scarcity of supply or not and regardless of whether parties exposed to those prices had an opportunity to curtail demand or increase their own generation.
- 19. The Authority's decision that a UTS occurred on 26 March 2011 should also enhance economic efficiency, which is the primary focus of the Authority's statutory objective as discussed in its Interpretation document.<sup>2</sup> Allowing the interim prices to become final prices would have been inconsistent with the requirements of a workably competitive market and would therefore have been inconsistent with the Authority's interpretation of its statutory objective.

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<sup>1</sup> See paragraph 25 for a definition of net pivotal positions.

<sup>2</sup> The Authority's Interpretation of its Statutory Objective is available on the Authority's website at: <http://www.ea.govt.nz/about-us/documents-publications/foundation-documents/>

### **What is the effect of the final decision on retail electricity prices?**

20. If the interim prices had been allowed to become final prices, and this led to strategic pricing by generators in a net pivotal position becoming more prevalent, there may have been upward pressure on retail electricity prices, at least in the region of any net pivotal generator. The decision that a UTS occurred on 26 March 2011 reduces these risks on retail electricity prices.

### **Does the final decision imply that high offer prices are acceptable?**

21. The Authority points out in its decision that exceptionally high offer prices into the spot market, and exceptionally high spot market prices, do not necessarily constitute a UTS. The final decision notes that, had the exceptionally high prices resulted from a genuine scarcity of electricity supply, and the high offer prices had been well signalled in advance, then the Authority is unlikely to have found that the events of 26 March 2011 constituted a UTS, as it is important that price is used to signal scarcity to industry participants.

### **Is the final decision inconsistent with other Authority policy development?**

22. The Authority's scarcity pricing policy initiative is focussed on limiting the suppression of electricity spot prices when demand is curtailed through non-price methods when supply shortages occur. Scarcity pricing is intended to provide efficient price signals to providers of last resort generation and demand response capability.
23. The exceptionally high prices of 26 March did not relate to any underlying supply shortages as is being catered for by the scarcity pricing arrangements. The events of 26 March instead reflected a market squeeze, with prices at exceptional levels that were divorced from supply-demand conditions.

### **What is a 'market squeeze'?**

24. The term 'squeeze' originates in commodity futures markets in which final settlement involves physical delivery of the commodity. In the context of the wholesale electricity market a market squeeze occurs when a generator is in a position whereby it is able to "name its price" but parties exposed to that price are unaware of the price until it is too late for them to curtail their demand or increase their own generation or arrange for someone else to undertake these activities for them.

### **What is a 'net pivotal generator'?**

25. A generator is net pivotal when it is the marginal generator supplying a region and the amount of electricity it can produce is greater than that required to supply its own customers' load in the region.

### **Will the final decision create a price cap in the wholesale electricity market?**

26. The Authority has considered the possibility that resetting offer prices for 26 March may be viewed by some participants as imposing a price cap on generator offers in the spot market. The Authority emphasises that its proposed actions in regard to price-setting are specific to the events of 26 March. The Authority also points out in its decision that, had the exceptionally high prices resulted from a genuine scarcity of electricity supply, and the high offer prices had been well signalled in advance, it is unlikely the Authority would have found the events of 26 March constituted a UTS, as it is important price is used to signal scarcity to industry participants.

### **Will the final decision adversely impact the electricity hedge market?**

27. In regard to the hedge market, the Authority believes the draft final prices provide an incentive for parties to manage their risk that is consistent with the incentive they would face in a workably competitive market. In contrast, the interim prices for 26 March 2011 would undermine the hedge market as such prices reflected a market squeeze rather than a workably competitive market. Hedge markets thrive when participants are confident the underlying physical market is competitive, and they are hampered when this is not the case.

### **Will the final decision undermine incentives for efficient generation investment and efficient retention of existing capacity?**

28. The Authority proposes to reset Huntly power station offer prices for trading periods 22 to 35 on 26 March at \$3,000/MWh. This revision will result in wholesale electricity market prices approximating the prices purchasers would have paid for demand-side response had they received and acted upon continuing forecasts of exceptionally high prices in the hours leading up to the UTS. Allowing the interim prices to stand would have created inefficient incentives for generation investment, and retention of existing capacity, as curtailing demand would be a cheaper option for wholesale electricity market purchasers.

### **Will the final decision adversely impact on incentives on parties to manage their risk?**

29. The Authority believes the draft final prices provide an incentive for parties to manage their risk that is consistent with the incentive they would face in a workably competitive market. In contrast, the interim prices for 26 March 2011 would undermine the hedge market as such prices reflected a market squeeze rather than a workably competitive market. Hedge markets thrive when participants are confident the underlying physical market is competitive, and they are hampered when this is not the case.

### **How can it be a UTS when there has been no breach of the Code?**

30. The UTS provisions in the Code make it clear that a UTS may exist without the Code being breached.

### **What is the Authority doing to prevent a recurrence of such an event?**

31. The Authority's work programme already contains several pro-competition and pro-hedging initiatives for addition to the Code by the end of the year. The Authority believes that, had these measures been in place, the exceptional events on 26 March would not have happened. Details on the Authority's work programme are on its webpage <http://www.ea.govt.nz/our-work/programmes/>.
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### **Why has it taken the Authority so long to make a decision?**

33. The Authority has sought to make its decision in an expeditious manner, noting the complexity of the issues raised in this case. Below are a few examples of how this complexity influenced timing:
  - i) the Authority has received and analysed 35 claims that the events of 26 March constituted a UTS;
  - ii) the Authority has issued 52 information requests and analysed the responses to these;
  - iii) although the Code does not require consultation on a decision as to whether a UTS has occurred, submissions and cross-submissions on the Authority's preliminary view were sought from interested parties and 29 responses were analysed; and
  - iv) the modelling undertaken as part of the analysis of the events of 26 March has looked at wholesale electricity market trading data for every half hour since 1 May 2004.

### **What were the 'good reasons' for consumers not believing Genesis Energy's offer prices would translate into spot market prices?**

34. Although Genesis Energy submitted its \$19-20,000/MWh offers to the market on Friday, 25 March 2011, forecasts of spot market prices failed to consistently predict actual prices, due to inaccuracies in demand forecasts. Although \$20,000/MWh prices were forecast at 2pm and 2:30pm on 25 March, price forecasts fell to approximately \$150/MWh later in the afternoon of 25 March in response to Mighty River Power's decision to offer an additional 125MW at its Southdown power station. Thereafter, there was no indication of the forthcoming exceptionally high prices on 26 March until almost real time, even though the transmission constraint caused by the transmission network outages was shown to be binding in the price forecasts.

### **Why were the demand forecasts so inaccurate?**

35. The various forecast schedules produced by the system operator prior to dispatch are non-binding indicators to industry participants regarding forthcoming market conditions. As real time approaches, the quality of information in the forecast schedules converges with the real-time conditions. This is due to participant offer strategies stabilising, forecast loads becoming more accurate, and network status (topology and constraints) becoming more

certain. Nevertheless forecast inaccuracies of this magnitude, or greater, occur about 5% of the time.

**Why is the Authority no longer publishing a market performance report on the events of 26 March?**

36. The Authority has decided not to proceed with a market performance report regarding the events of 26 March, as the UTS decision document already contains detailed analysis of the event. Moreover, the Authority's work programme already contains several pro-competition and pro-hedging initiatives for addition to the Code by the end of the year. As stated earlier, the Authority believes that, had these measures been in place, the exceptional events on 26 March would not likely have happened. The Authority has decided to concentrate its efforts on developing these initiatives as expeditiously as possible, given the need and requirement for full consultation with stakeholders about such changes before any final decisions are made.