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Submissions
Electricity Authority
Wellington

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Confidence in the market is threatened where supply does not meet demand, despite there being sufficient supply capacity

Electric Kiwi, Flick Electric, Haast Energy Trading (Haast), and Vocus (the independents) welcome the Electricity Authority's decision to consult on whether an undesirable trading situation (UTS) occurred in relation to trading periods 37 to 42 on 9 August 2021.¹

With respect, we do not consider the preliminary decision provides a safe basis for determining a UTS did not occur. The preliminary decision did not engage with, or respond to, the principal elements of our submissions why we consider a UTS occurred and the events of 9 August threatened, or may have threatened, confidence in, or the integrity of, the wholesale market:

- The most basic requirement of any functioning market is that it matches supply and demand. If there is sufficient supply capacity to meet demand, a failure to supply (artificial scarcity) can undermine and threaten confidence in, or the integrity of, the wholesale market. We refute the preliminary decision that "The market operated as expected" and consider the statement "the events lasted for a relatively short time period" downplays the harm to consumers on what was one of the coldest nights of the year.
- Relatedly, confidence in the market will or may be undermined and threatened where there is sufficient supply capacity to meet demand, but a generator ("economically") withholds capacity because it doesn't want spot prices to fall and/or it isn't needed to meet its own downstream portfolio/customer demand.

These outcomes send a clear signal that consumers cannot necessarily rely on the wholesale electricity market to function in a normal manner, in which suppliers have strong incentives to respond to the expectation or forecast of heightened consumer demand and aim to supply as much of their product as possible.

Summary of the independents opinion that a UTS occurred on 9 August 2021

- **We remain of the view that a UTS occurred on 9 August 2021.**
- **There was a UTS even if market participants acted reasonably:** We consider confidence in, or the integrity of, the wholesale market will or may be undermined and threatened by circumstances where there is sufficient supply capacity, the regulator concludes market

¹ The Authority has historically only consulted where its preliminary decision is that there was a UTS, and otherwise has moved straight to a final decision.

participants all acted reasonably, yet supply wasn't able to meet demand. It would be reasonable to conclude the market was not operating efficiently (ensuring supply meets demand) or in the way that it should. **It is reasonable to expect if a market is operating normally that supply will meet demand if there is both sufficient supply capacity and no artificial scarcity.**

- On 9 August 2021, demand wasn't met even though there was sufficient capacity. This artificially triggered scarcity pricing, and delivered an estimated \$130m uplift in spot prices across four trading periods, further undermining confidence in the market. **Generators were rewarded for not generating and scarcity pricing was triggered even though there was no genuine scarcity.**
- We remain of the view that **Genesis had sufficient time for HLY4 to be (partially) operational**, for the reasons provided in the original Electric Kiwi and Haast complaint.
- **The preliminary decision only considered the time it would take for HLY4 to be fully operational.**² The preliminary decision focussed exclusively on what was required for HLY4 to be fully operational. At paragraph 8.16 the preliminary decision states HLY4 has significant minimum operating load, but not what that minimum is. Our contention is that – if the market had been functioning properly and there had been no “economic withholding” – and even based on the timing of the System Operator’s Customer Advice Notices (CANs) etc – Genesis could still have revised its decision not to make HLY4 available at 10:10am when “Infeasible forecast prices that indicated stress on the power system from trading period 36 onwards occurred” to at least get to minimum operating load. The Authority should explore this point further.
- **Commercial decisions to “economically withhold” capacity can undermine confidence that the market will ensure supply meets demand:** The Authority should consider the clear and public reasons Genesis, and its CEO, gave for not turning Huntly on, and not just the ex post consideration in the preliminary decision of whether there were any “reasonable” reasons not to operate. The reason HLY4 wasn't in operation was that Genesis “look[ed] at their own portfolio ... we manage our own portfolio like everyone else does ... When we looked at our portfolio, we knew we could meet our demand ...”³
- **The Authority’s ‘reasonableness test’ appears inconsistent with its position that it doesn’t need to determine whether a market participant is “blameworthy”:** There appears to be a dissonance between the Authority’s long-held position that it does not have to determine a market participant is “blameworthy” for there to be a UTS and the position in the preliminary decision that there wasn't a UTS because the relevant market participants acted “reasonably”.
- If a UTS can occur when no market participant is “blameworthy” then, as a corollary, a UTS can occur when all market participants acted “reasonably”. The preliminary decision that all market participants acted “reasonably” therefore does not provide sufficient basis for the Authority to determine there wasn't a UTS.

² e.g. the preliminary decision stated “Once ramp up time is added we found no instances when a cold unit would have been able to generate at full output in less than 8 hours and 24 minutes”.

³ e.g. <https://www.rnz.co.nz/national/programmes/checkpoint/audio/2018807654/power-outages-genesis-ceo-says-energy-minister-scapegoating-but-woods-has-questions> and <https://www.stuff.co.nz/business/126029919/power-cuts-genesis-boss-says-firm-feels-victimised-as-transpower-admits-error>.

Unsafe basis provided for concluding a UTS did not occur

The preliminary decisions' summary conclusion was that: "the Authority found the decisions made by the system operator and generators were reasonably open to them in the circumstances. The market operated as expected, and the events lasted for a relatively short time period. As a result, there was no situation that threatened or may have threatened confidence in, or the integrity of, the wholesale market".

With respect, we do not consider the preliminary decision provides a safe basis for determining that a UTS did not occur:

- **The basic and fundamental requirement for any functioning market is that supply meets demand:** We refute the preliminary decision that "The market operated as expected". The most basic requirement of any functioning market is that it matches supply and demand. On 9 August the wholesale market failed to do so even though there was sufficient supply capacity. As the Authority noted "While the power system was stressed on 9 August 2021, in retrospect it was not particularly short of energy". We consider the failure of the market to meet demand, even though there was sufficient supply capacity is "a situation outside the normal operation of the wholesale market".

We agree with MDAG's statement that "the spot market is the primary mechanism for balancing supply and demand in real time" and "Under current arrangements, demand is allowed (with rare exceptions) to 'roam' freely up and down, and the level of supply is controlled to perfectly match with demand at each point on the grid. The spot market is the primary mechanism used to achieve this balance".⁴

- **There was a loss of supply when consumers value it most:** We consider that the statement "the events lasted for a relatively short time period" downplays the detriment to consumers, on what was one of the coldest nights in the 2021 winter. The Authority's TPM CBA established that consumers value electricity the most during peak periods, of which 9 August was one of the most extreme.

We also note and agree with the statement by Vocus: "Vocus is seriously concerned that the outages which resulted as a direct consequence of the apparent failure to offer available generation to meet demand by Genesis Energy and Contact Energy had the potential for much more serious consequences for consumers – particularly those who are dependent on electricity for critical medical equipment or vulnerable".⁵

- **There can be a UTS where market participants acted "reasonably":** The Authority's long-held position is that it does not have to determine a market participant is "blameworthy" for there to be a UTS. The corollary to this is that a UTS can occur when all market participants acted "reasonably". The preliminary decision that all market participants acted "reasonably" therefore does not provide sufficient basis for the Authority to determine there wasn't a UTS.

⁴ MDAG, PRICE DISCOVERY UNDER 100% RENEWABLE ELECTRICITY SUPPLY ISSUES DISCUSSION, MARKET DEVELOPMENT PAPER, 2 February 2022.

⁵ Vocus, Undesirable Trading Situation and Trading Conduct Code Breach on 9 August 2021, 16 August 2021, available at: <https://www.ea.govt.nz/assets/dms-assets/28/SWCH-UTS-Trading-Conduct-16082021-FINAL.pdf>

Profit maximising behaviour is not always “reasonable”

The preliminary decision states that “whether the actions of Genesis Energy and/or Contact Energy threatened, or may have threatened, confidence in, or the integrity of, the wholesale market ... revolves around efficiency because the Authority expects generators, such as Contact Energy and Genesis Energy, to offer generation into the market to make a profit”. The preliminary decision goes on to state “When considering offering generation, a generator needs to understand the effect of offering the unit on forecast market prices” and “The decision to offer any generation is therefore made regarding the effect of that plant on the market price. This is particularly the case with a thermal unit offering its minimum load at a low price”.

Just because a market participant may have acted in a profit maximising manner it does not follow that they acted “reasonably”, the outcomes will be efficient and/or there wasn’t a UTS. We have no reason to doubt, for example, that Contact and Meridian’s December 2019 offer strategies were profit maximising but the Authority did not take this into account in its UTS decision, and determined there was a UTS.⁶

There is an inconsistency between efficiency, which should see prices tend towards SRMC, and “the effect of offering the unit on forecast market prices”, with the exercise or use of significant market power resulting in lower output/higher prices than is efficient.⁷

The Authority’s expectation that generators make decisions based on profit and the market operates efficiently are in conflict where market participants have significant or substantial market power.

The preliminary decision includes a lot of focus on the amount of time it would take to bring a Rankine “from cold to full load” – with the implication that the time-period following the Transpower CANs did not provide Genesis with sufficient time – but this fails to recognise that the market did not need the Rankine unit to operate at “full load” in order to ensure supply met demand. We consider the statement “Once ramp up time is added we found no instances when a cold unit would have been able to generate at full output in less than 8 hours and 24 minutes” is not relevant to whether Genesis acted reasonably or whether there was a UTS.

Operating in accordance with a social licence

Genesis has acknowledged it operates critical national infrastructure at Huntly, but it isn’t operating in the national interest.

The preliminary decision makes clear that when faced with a “finely balanced” decision whether to run, Genesis choose the overall profitability of their retail-generation portfolio over security of supply, and blackouts resulted.

⁶ The same applies in relation to the 26 March 2011 UTS.

⁷ We also note that “profit” can be measured in a number of different ways which could have different implications e.g. the profit of the individual generation plant, the profit of the overall generation business, and the profit of the vertically-integrated entity taking into account its retail business and portfolio position. In a fully competitive market the profit maximising decisions of an individual generation plant would be the same as the profit maximising decisions of the generation business or the vertically-integrated entity, but this link breaks down where the entity has significant market power.

This is in stark contrast to Genesis media release in February 2021 which stated:

"We are fortunate to be able to reallocate resources across the business to make this possible. The flexibility and commitment of our team reflects our commitment to ensure secure and stable energy supply for New Zealanders. Electricity is a core component of everyday Kiwi life and we recognise the role and responsibility we have in enabling that."

Genesis will make the third Rankine (250MW Unit 2) available from February 22 to September 30, 2021. It is expected that it will be run in a limited capacity alongside Rankine Units 1 and 4, and Gas Units 5 and 6.

"The ability to bring a third Rankine to the market highlights the critical importance of Huntly's role to provide back-up generation cover to ensure security of supply and help maintain stable prices in the wholesale electricity market," Clark added."

We agree with the view expressed by Flick Electric that: "We acknowledge the third Rankine has played a critical role during this winter. However, the market could justifiably anticipate this commitment by Genesis to ensure secure and stable energy supply for New Zealanders and help maintain stable prices in the wholesale market would continue for the period to 30 September 2021. That is, the third Rankine was available but a decision was made not to 'turn it on'."⁸

Shifting justifications for the 9 August conduct

Genesis has been very clear the reasons for its decision to withhold HLY4 reflected its vertically-integration position and the generation supply needed to balance its generation against its own customer needs (as cited in the initial complaint allegation made by Electric Kiwi and Haast^{9,10}) e.g.:

"[There] was an alert to the market that there was risk. When that happens everyone looks at their own portfolio and says what's our demand? What do we forecast the risk to be for the evening peak?, and we make sure we have enough units on line ... we can't see the whole market ... we manage our own portfolio like everyone else does ... When we looked at our portfolio, we knew we could meet our demand ...".

"We looked at our portfolio yesterday and we knew that between all our customer demand and the generation we had online we could meet our customer demand.... We did what we always do and made sure we could meet our customers' demand ... our only accountability is to ensure we can supply our customers."

"We made a decision on the basis of the information we had ... we knew we could meet our own demand."

This is consistent with other incumbent generator statements about their offer strategies. For example, The Brattle Group (on behalf of Meridian) has noted Meridian's offer prices are a function of its retail load portfolio, with a focus on ensuring its generation meets its own customer demand:¹¹

Meridian has, over the past several years, consistently employed the same bidding strategy. It typically offers its hydro generation into the pool in three main groups of tranches. The first group is offered at or near \$0/MWh to ensure that it is picked up by the market, and is intended to be roughly equal to Meridian's contracted load requirements. This usually represents the majority of Meridian's hydro generation capacity. In the second group, Meridian offers a smaller amount of generation based on the availability and opportunity cost of water at various prices (typically less than \$350/MWh).

⁸ Flick Electric, Re UTS and trading conduct breach claim by Electric Kiwi and Haast Energy, 13 August 2021, available at: <https://www.ea.govt.nz/assets/dms-assets/28/Flick-letter-to-EA-joining-UTS-claim-12-August21.pdf>

⁹ Electric Kiwi and Haast, 9 August Undesirable Trading Situation and Trading Conduct Code breach, 12 August 2021, available at: <https://www.ea.govt.nz/assets/dms-assets/28/9-August-2021-Haast+-Electric-Kiwi-Trading-Conduct+-UTS-complaint1318317.1.pdf>.

¹⁰ e.g. <https://www.rnz.co.nz/national/programmes/checkpoint/audio/2018807654/power-outages-genesis-ceo-says-energy-minister-scapegoating-but-woods-has-questions> and <https://www.stuff.co.nz/business/126029919/power-cuts-genesis-boss-says-firm-feels-victimised-as-transpower-admits-error>.

¹¹ The Brattle Group, New Zealand Electricity Authority's Preliminary Decision on UTS, 18 August 2020.

Meridian has backed this up with similar statements in its recent Wholesale Market Review submission e.g.:¹²

“... Meridian and Mercury do not have thermal plant to turn on, so manage storage lakes to reduce shortage risks using higher offers. The commercial implications of shortage are significant for hydro generators who would be short and purchasing from spot to cover contracts at very high prices.”

“... when Manapōuri experiences low lake levels, additional storage from lake Pukaki can be used to cover Meridian's contract position.”

It is, perhaps, unsurprising Genesis has subsequently tried to rewrite its reasons for withholding Huntly. The explanations Genesis and its CEO originally gave are wholly inconsistent with the outcomes in a properly functioning market.

Our concerns about scarcity pricing

We consider that the Authority should review the scarcity pricing provisions, including triggers, in the Electricity Industry Participation Code.

We note and support the communications Haast has had with the Electricity Authority and System Operator about whether scarcity pricing was triggered, given the System Operator clarified its position that the Island Shortfall Situation (ISS) notice was void ab initio.¹³

Whether or not the Authority's decision on this matter is a correct application of the rules,¹⁴ the outcome is neither satisfactory nor efficient.

The Authority declined the request “because it is unable in the circumstances to exercise that power” and “even if it were able to do so, there has been no pricing error”, notwithstanding the Authority's finding that “It was not clear” whether the circumstances for an ISS notice applied.

We consider it would be a perverse outcome if a commercial decision of Genesis (or generators generally) not to make generation capacity available results in a failure of the market to ensure supply meets demand then results in Genesis (and other generators) being rewarded by a regulated price floor (higher prices) under scarcity pricing.

The outcome is an estimated \$130m windfall gain for generators, at the expense of consumers and independent retailers. Generators should not be rewarded for withholding generation capacity and the creation of artificial scarcity by application of high regulated prices. Invoking scarcity pricing even though there is no genuine scarcity and rewarding generators with artificially high, administered pricing, further undermines confidence in the market.

The Authority has commented “Without scarcity pricing, the price signals indicating a shortage of supply would be muted as cuts in demand would generally lead to lower prices” but at all times prices would be sufficient to cover the offer price of the marginal generator. We also question the extent to which an event like 9 August would “mute the long-term incentives to invest in last-resort generation or demand response”.

¹² Meridian, Meridian submission: Review of competition in the wholesale market, 22 December 2021.

¹³ Submissions made by the System Operator and Chapman Tripp on behalf of the System Operator regarding Code breaches on 9 August 2021, and emails between Haast and the System Operator which the Authority was CCed on.

¹⁴ <https://www.ea.govt.nz/assets/dms-assets/29/Market-Brief-1-February-2022.html#mctoc1>

Concluding remarks

We agree with the Minister of Energy “the electricity market had clear warning about the potential for the shortage situation” and do not find any suggestion that the events could not have been foreseen to be credible. This is explained in the original Electric Kiwi and Haast complaint.

The System Operator provided adequate warning of the situation well in advance. It doesn’t matter whether this was sufficient for Huntly to be fully operational – HLY4 could have been in partial operation to ensure supply.

Even if the conduct of Genesis is not deemed blameworthy, the failure of the market to match supply and demand when adequate supply was available constitutes a UTS. The market demonstrably failed on 9 August 2021, if the Authority believes no participant is blameworthy then fault ultimately lies with the market design the Authority has chosen and implemented.

The events on 9 August 2021 would not have happened but for commercial generation decisions, including Genesis’ judgement that it was more profitable to withhold generation capacity when taking into account the impact its supply decisions have on spot prices, its overall generation-retail portfolio, and its own customer needs. It appears that Genesis now realises the implications of the public explanation its CEO gave for the decision not to operate, and is trying to resile from those reasons. Genesis’ revised explanation attempts to provide a better narrative in the context of the UTS and trading conduct provisions in the Code, and its own reputation.

The Authority’s comments that “On balance, decisions were made that might have been imperfect in retrospect”, Genesis Energy’s “decision not to run [HLY4] was finely balanced based on the data” and “in retrospect a different decision would have been preferable” are hardly reassuring about the integrity in operation of the market. Genesis Energy’s commercial decisions directly and needlessly led to power outages for Kiwi households and businesses on one of the coldest nights last year. As it stands, Genesis will be rewarded for the outage by the invocation of scarcity pricing.

There have been multiple reviews initiated in response to the 9 August supply failure. The statements by the Prime Minister and Minister for Energy highlight that confidence in the market was undermined and threatened:

“Yesterday’s events have prompted further questions on whether the system is fit for purpose”¹⁵

“Regardless of the mechanisms of the electricity market, New Zealanders rightly expect the lights to be on and the heaters to be running on a cold winter’s night. That’s why the situation that unfolded yesterday was unacceptable. If we’re going to have a market-orientated system providing security of supply, then that market must deliver. The market failed in this respect.”¹⁶

“it was not good enough that we could not warm our homes”¹⁷

¹⁵ https://www.parliament.nz/en/pb/hansard-debates/rhr/document/HansS_20210810_050760000/woods-megan

¹⁶ https://www.parliament.nz/en/pb/hansard-debates/rhr/document/HansS_20210810_050760000/woods-megan

¹⁷ <https://www.nzherald.co.nz/nz/power-outages-pm-jacinda-ardern-says-not-good-enough-that-we-couldnt-heathomes/42KMF3MXIUQYZOORUSDLMC2JBU/>

Yours sincerely,

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