11 Chews Lane
PO Box 10568
The Terrace
Wellington 6143
New Zealand

Genesis Power Limited
trading as Genesis Energy

Fax: 04 495 6363

29 April 2011

Tim Street
Electricity Authority
2 Hunter Street
WELLINGTON

By email:submissions@ea.govt.nz

Dear Tim

Proposed approach generally sound, but overly cautious

Genesis Power Limited, trading as Genesis Energy, welcomes the opportunity to provide a submission to the Electricity Authority ("the Authority") on the consultation paper "Scarcity Pricing – Proposed Design" dated 28 March 2011.

We consider that the Authority has developed a robust problem definition and that its proposed approach is generally sound, but overly cautious in many respects. Genesis Energy's responses to the consultation questions are in Appendix A. In addition to our responses to the questions, we expand below on two points.

Overly cautious approach

We consider that the Authority's proposed approach to implementing scarcity pricing is overly cautious.

The Authority now has a robust problem definition that has been developed and tested over several years and that clearly identifies a number of pricing imperfections that adversely affect incentives for managing supply risks. Having reached this point, the Authority now appears reluctant to remedy the identified pricing imperfections. In particular, the Authority proposes an island-level geographic threshold for curtailment price floors and seems reluctant to apply a price floor for public conservation campaigns.

Failing to apply scarcity pricing at a nodal level will leave the vast majority of capacity-related pricing imperfections uncorrected. Failing to apply scarcity pricing for public conservation campaigns will leave the most important pricing

imperfection uncorrected. We cannot see how this is a tenable as a durable long-term prescription.

We consider that the only durable option is to put in place a clear, codified path towards fully remedying the identified pricing imperfections.

Geographic scope of price floors

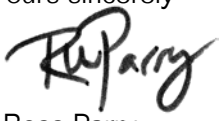
We consider that the best approach to deciding on the appropriate geographic scope for each type of scarcity price floor is to apply the following conceptual approach:

- scarcity pricing is required when non-priced administrative actions are used to maintain system security;
- the actions, such as public conservation campaigns and instructed load shedding, can be thought of as "administrative resources" that are able to be deployed when needed;
- scarcity pricing can be thought of as reflecting the "dispatch" of an administrative resource at a particular node or nodes; and
- each administrative resource has a geographic application (public conservation campaigns may be applied nationwide or in the South Island only, rolling outages will follow a geographic pattern intended to maximise the value of remaining fuel supplies, the system operator will instruct load curtailment at particular nodes and a reduction in instantaneous reserves provision usually affects one island).

Given this framework, we consider that the relevant price floor should be applied wherever and whenever an "administrative resource" is "dispatched". This approach properly mitigates the effect of non-priced administrative actions on price discovery.

If you would like to discuss any of these matters further, please contact me on 04 495 3348.

Yours sincerely



Ross Parry

Regulatory Affairs Manager

genesis ENERGY

Appendix A: Responses to Consultation Questions

QUESTION	COMMENT
Q1: To what extent is price suppression an issue with current pricing arrangements?	Price suppression during scarcity events is a significant problem with current pricing arrangements. This has been well documented by the Electricity Commission, the Ministerial Review of Electricity Market Performance and the Electricity Authority in recent years.
Q2: To what extent do you agree that the spot price suppression will adversely affect security of supply?	Fully agree. Spot price suppression mutes investment signals and will produce sub-optimal investment over time in generation, demand response capability and other arrangements for managing supply risks.
Q3: What is your assessment of historic security of supply performance, and the likely future performance under current arrangements?	Management of supply risks during periods of low hydro inflows has been the most significant problem historically, as documented in reports such as the Ministerial Review of Electricity Market Performance and "Review of 2008 Winter and the period leading into winter"[1].
Q4: What is your view of the proposed price floor to be applied in emergency load curtailment?	We consider that it is appropriate to apply a price floor set with reference to a mid-point estimate of the value of lost load (VoLL) whenever emergency load curtailment occurs. We consider that such a price floor should be applied at the nodes where load is curtailed, as this reflects that an "administrative resource" has been "dispatched" in that particular trading period at that particular location to enable supply to match demand. Any other approach, including the "island-wide" approach proposed by the Authority, will

[1] Prepared for the Electricity Commission and published in early 2009. http://www.ea.govt.nz/industry/ec-archive/security-of-supply/winter-review-2008-archive/

QUESTION	COMMENT
	perpetuate varying degrees of price suppression.
Q5: What is your view of the proposed treatment of load curtailment in AUFLS events?	We consider that a scarcity price should apply when AUFLS is triggered for the same reasons that a scarcity price should apply in the case of instructed demand curtailment. The Authority notes that generators and load parties cannot respond to a scarcity price during an AUFLS event; however, the *anticipation* of scarcity prices applying during an AUFLS event will influence load parties, generators and other participants. We consider that the best way to deal with a situation analogous to the Australian bush fire example given in the consultation paper would be through the undesirable trading situation (UTS) mechanism in the Electricity Industry Participation Code ("the Code"). To be clear, we are not offering a view here on whether a UTS claim ought to be successful in a situation such as the Australian bushfire example. We recommend that the Authority should also be exploring options for moving to more market-based arrangements for procuring AUFLS blocks. This would help to improve price signals in the market for demand interruptibility. This would reduce the societal cost of AUFLS events by providing more efficient selection of AUFLS participants. In the long-run it would also promote more dynamically efficient investment in demand interruptibility arrangements.
Q6: What is your view of the proposed approach to pricing during IR shortfalls?	We support the proposed approach in principle and look forward to further development of the concept of a "virtual IR provider" with an associated IR scarcity price curve.

QUESTION	COMMENT
Q7: What is your view of the proposed price floor to be applied in rolling outage load curtailment?	We support the proposed approach, except we consider that the rolling outage price floor should only apply at the appropriate nodes during the trading periods when a rolling outage is in force. This approach would reflect that an "administrative resource" has been "dispatched" at those times and in those places.
Q8: What is your view of the proposed disclosure mechanism?	We do not support the proposed disclosure mechanism. The rationale of using a disclosure mechanism to deter "talking up" of security risks is outdated now that the Code incorporates a deterministic trigger for public conservation campaigns. This formalised trigger based on hydro risk curve analysis fundamentally changes the way that public conservation campaigns are initiated. In addition to the above point, we consider that public disclosure of participants' spot price exposure would present a number of difficulties: • the Authority would need to develop methodologies for determining what supply arrangements may be treated as "firm" and, similarly, what should be treated as firm supply commitments; • many participants will have sophisticated risk management arrangements in place that would not lend themselves readily to assessment by the Authority; • disclosures may quickly become out of date given that participants can rapidly enter, exit or adjust risk management arrangements; and • participants may have legitimate concerns about the effect on their bargaining power of having their degree of spot exposure publicly disclosed. Overall, we consider that there is no strong rationale now for a disclosure regime and that if

QUESTION	COMMENT
	such a regime is introduced then it is likely to prove costly, unhelpful and potentially misleading.
Q9: What is your view of these possible financial mechanisms?	We support application of a price floor during public conservation campaigns. This would reflect that an "administrative resource" has been "dispatched" to assist supply to meet demand. We do not support the idea of "…a set of graduated penalties to be applied to spot market purchasers based on their actual or simulated net exposure to spot prices over the preceding quarter or year." We consider this proposal is poorly conceived and that the level of spot price exposure that a purchaser is willing to accept is up to that purchaser. We agree that it would be desirable if participants in the New Zealand Electricity Market (NZEM) hedged their supply risks to a greater degree than at present, however, we do not consider that reducing participants' spot price exposures to any particular level should be an objective in and of itself. The Authority should concern itself with reducing opportunities for participants to shift costs. How participants choose to respond to more realistic spot prices is up to them.
Q10: What is your view of the comparative merits of disclosure versus a spot price floor to address concerns about over-reliance on public conservation campaigns? Is there merit in pursuing both mechanisms?	We consider that a spot price floor should be pursued. We do not consider that there is any merit in also pursuing an information disclosure regime. As per our response to Q8, the rationale for information disclosure has been weakened considerably given that the Code has now formalised public conservation campaign arrangements and includes a deterministic trigger based on hydro risk curves.

QUESTION	COMMENT
Q11: What is your view of the proposed approach to imposing a minimum geographic threshold before any scarcity price floor is applied?	We do not support this approach. A geographic threshold will leave the majority of price suppression events uncorrected. This approach will therefore fail to remedy the muting of investment and risk management price signals and this will produce a sub-optimal level of reliability over time. We consider that price floors should apply at any node where demand curtailment has been instructed. This reflects that an "administrative resource" has been "dispatched" at that those nodes at those times. We note that we also support implementation of a locational rental allocation (LRA) based approach to managing intra-Island price risk and consider that this would be complementary to nodal scarcity pricing. We do not accept that the regulatory regime that governs transmission investment makes a nodal scarcity price unnecessary or unhelpful. Nodal scarcity pricing would improve the information set available for decisions on transmission investment and would influence participants' approaches to managing supply risk in areas exposed to transmission constraints, including their decisions on the locations of their generation investments. We consider that both of these factors would be beneficial. As an aside, at paragraph D.23 the Authority says that an incentive scheme for Transpower linked to constraints or losses is not likely to be implemented in the near term. We note that the Commerce Commission is currently considering applying such a scheme.

QUESTION	COMMENT
Q12: What is your view of the preferred approach to transition arrangements?	We consider that it would be useful for participants if there was a clear implementation path established in the Code, rather than the Authority adopting an uncertain adaptive or "wait and see" approach. We accept that it would be fair to defer introduction of the rolling outage price floors until after Pole 3 of the HVDC link has been commissioned. However, the price floors and a commencement date should be codified in advance so that there is a clear and credible commitment by the Authority. We consider that public conservation campaign price floors could be introduced without a long lead time. Low rainfall and light snow pack are supply risks that have always featured in the NZEM and participants should already understand these risks and how to manage their exposure. We do not consider that it is necessary to provide a long lead time for curtailment price floors given the NZEM is currently an uncapped market and spot price volatility is something that all participants should be managing as a matter of course. We note that the Authority is proposing a relatively mild scarcity price for curtailment events, so a ramp up does not seem necessary. We do not consider that a transitional "stop loss" mechanism is needed given that the UTS mechanism can be used to deal with exceptional circumstances.
Q13: What is your view of the proposed approach to review arrangements?	We support codified review provisions. However, we consider that a longer timeframe would be appropriate. We recommend that scarcity values, the geographic threshold and the public conservation campaign trigger level should be reviewed every five years with a two year notice before changes take effect. We note that if a nodal approach to curtailment price floors is adopted then review of the

QUESTION	COMMENT
	geographic threshold would not be required. We also agree that post-event reviews may be valuable for any prolonged or widespread scarcity events.
Q14: What is your view of the proposed changes when assessed against the Electricity Authority's statutory objective?	We consider that introducing scarcity price floors is consistent with the Authority's statutory objective. We note that the Authority is particularly focused on the potential effect of scarcity pricing on retail competition. We offer the following observations: • we consider that scarcity pricing should have a pro-competitive effect with respect to the overall market for supply of electricity to consumers; • retail competition must occur within the context of market arrangements designed to promote overall efficiency and to deliver acceptable reliability; and • we consider that implementing a LRA-based mechanism for managing intra-island locational price would be pro-competitive and complementary to scarcity pricing.
Q15: What, if any, other reasonably practicable options should be considered?	None. We note that numerous variations on the capacity mechanism approach have been explored and rejected in the past using terminology such as "compulsory insurance"[2] and "energy adequacy hedges"[3].

[2] David Hunt and John Isles, 2009, "Review of 2008 Winter and the period leading into winter", http://www.ea.govt.nz/industry/ec-archive/security-of-supply/winter-review-2008-archive/, p50 – 52.

[3] Castalia Limited, 2007, "Electricity Security of Supply Policy Review". http://www.castalia-advisors.com/files/24442.pdf

QUESTION	COMMENT
Q16: What is your view of a capacity mechanism, when assessed against the Electricity Authority's statutory objective?	We consider that a capacity mechanism would supplant market mechanisms to a significant degree, would be prone to risks of regulatory error and could curtail innovation. The Authority's assessment observes that scarcity pricing also supplants market arrangements to some extent. We disagree with this assessment. NZEM transacts through a designed wholesale spot market and the scarcity pricing proposals simply amend the spot market auction rules to ensure that the detrimental effects of certain administrative actions on efficient price discovery are mitigated. Scarcity pricing does not introduce new administrative actions and does not supplant interactions between suppliers and consumers.
Q17: What is your view of the costs and benefits of the proposed changes?	We agree that scarcity pricing will produce net public benefits. We note the following: • we expect that benefits can be expected to arise relatively quickly because risk management can be improved without needing to construct new plant immediately; • benefits can accrue both from achieving a more optimal level of supply adequacy and from reducing out-of-merit dispatch of administrative resources such as public conservation campaigns; and • costs could be reduced by extending the codified review cycle to five-yearly (refer Q13).

QUESTION	COMMENT
Q18: What is your view of the likely impact on prices of the proposed scarcity pricing changes, both in the near term (static effects) and over time (when parties can adjust their plans and behaviour)?	We do not expect scarcity pricing to have an appreciable impact on prices. There should not be discernable static effects because: • scarcity pricing has been anticipated by the market at least since the outcome of the Ministerial Review of Electricity Market Performance, if not before; and • participants can alter their risk management arrangements rapidly if necessary. We expect that the potential for significant static effects would increase if the introduction of scarcity pricing were delayed long enough to result in withdrawal of further generation plant from the market.
Q19: What further pro-competitive initiatives should the Authority be considering at this time?	The Authority should implement the following: • mechanisms for managing locational price risk, including an LRA-based approach to intra-Island risk; • reform of the retailer-lines contracting environment to promote outcomes more consistent with what would be expected if there were a workably competitive market for electricity lines services; • dispatchable demand and demand-side bidding and forecasting; • reduced gate closure; • improved pricing schedules, including better demand and wind forecasts and information on the range of probable pricing outcomes, for example, P25 (high wind, low demand) and P75 (low wind, high demand) price forecasts; and • reform of AUFLS arrangements to

QUESTION	COMMENT
	implement market-based procurement methods.
Q20: Do you agree that the undesirable trading situation provisions could be invoked to address an exceptional event, and ensure that scarcity pricing is not applied in an inappropriate situation?	Yes, provided that this mechanism is clearly confined to exceptional events. The EA could provide guidance as to what this might entail. However, to be clear, in our view it does not entail simple dissatisfaction with market pricing outcomes arising from poor risk management decisions.
Q21: What is your view of price capping mechanisms, when assessed against the Electricity Authority's statutory objective?	We do not support price capping mechanisms. We note that consideration of whether to retain an uncapped market or to introduce a price cap should be independent of work on scarcity pricing. Scarcity pricing does not significantly alter the pros and cons of retaining an uncapped market.