Appendix A: Meridian's responses to the Authority's questions – Scarcity Pricing and Related Matters

Question		Response
1	Do you agree with the problem definition?	Meridian agrees that, in principle, public conservation campaigns and other measures to manage supply emergencies have meant that prices have tended to be lower than they would otherwise be and that this will have reduced incentives to provide last resort generation and/or voluntary demand side responses. Meridian refers the Authority to its previous submission and in particular paragraphs 10 to 15. In respect of whether the Annual Security Assessment (ASA) and recent investment are indications that current arrangements are satisfactory: • Meridian agrees that the ASA cannot be interpreted as an 'all clear', while it considers whether plant may be made available to operate it does not address offer behaviour; and • Meridian acknowledges that investments in new peaking plant (Taranaki/Marsden Point) are likely to have been made on the basis that a scarcity pricing regime would be introduced.
2	Do you agree that the proposed narrowing of scarcity pricing (to be applied for short-term emergencies and not for extended shortages) would be more consistent with the Authority's statutory objective?	Meridian agrees with the Authority's decision to narrow scarcity pricing to apply only during short term grid emergencies rather than extended shortages. In reaching this view Meridian acknowledges that: • No explicit account is currently taken of costs imposed on demand side if involuntary load shedding is invoked. This does indicate a degree of market failure.

		• There is international precedent for applying scarcity pricing for short term emergency load shedding events[1] as opposed to extended energy shortages. • Scarcity prices are likely to vary during the course of a sustained shortage, and therefore it is likely that any price floor set could be very intrusive to market operations if it is set too high or ineffective if set too low.
3	Do you agree that scarcity pricing should be applied as a price floor and cap, rather than simply a price floor during emergency load shedding?	Meridian agrees that the narrow form of scarcity pricing proposed by the Authority – during emergency load shedding – should be a price floor and cap. As previously submitted, if $10,000/MWh represents the value placed on lost load by consumers then pricing above this number is inappropriate when load has been instructed to be shed by the System Operator.
4	Do you agree that scarcity pricing should include a stop-loss mechanism, at least on a transitional basis?	Meridian agrees that a stop-loss mechanism should be included. In relation to the comment in paragraph 68 that the Authority "is not persuaded" that a general stop-loss mechanism should apply outside of scarcity pricing, Meridian notes that this matter has not been consulted on and considers it premature for the Authority to express such a view.
5	Do you agree that scarcity pricing should not apply for AUFLS per se?	Meridian agrees.
6	Do you agree with the proposed geographic threshold for initial application of scarcity pricing, and if not why?	Meridian agrees with the proposed island level geographic threshold.
7	Do you agree that an amendment should be made to final pricing processes when an infeasible solution arises	Meridian agrees that the Authority should amend the final pricing processes when an infeasible solution arises following an IR shortfall. The

[1] While Meridian agrees in this case that not applying scarcity pricing for extended energy shortages is the appropriate decision, Meridian is concerned that the Authority should not place too great an emphasis on whether international precedent exists or not before making other decisions on regulatory change. It is important to remember that New Zealand made significant market design steps in 1996 with the decision to implement the full nodal spot price regime.

	following an IR shortfall?	proposal means that there is a market rationale to the outturn price rather than the prices reflecting a mathematical quirk.
8	Do you agree with the proposed implementation timetable?	Meridian supports the 1 June 2013 start date for scarcity pricing. Meridian has some strong reservations regarding the form of reporting proposed by the Authority in relation to the stress tests. This is outlined further in response to Questions 20. With regard the proposed Quarter 2 start date, Meridian agrees that certification of the form proposed by Meridian (see response to Question 20) would be possible.
9	What is your view of the proposed review provisions for key scarcity pricing parameters?	Meridian understands the Authority proposes to: • Commence its first review in mid 2014 of: a. Scarcity pricing price floor and cap values during a emergency load shedding; b. Stop loss limit for applying to scarcity pricing; and c. Any other issue notified by the Authority at the time the review commences. • The implication of this is that any revisions would take effect 12 months following the completion of the review (anticipated to be early 2015), so in early 2016. If this understanding is correct, then Meridian considers that the proposal is both reasonable and appropriate.
10	What is your view of the trigger mechanism for declaring a national or island shortage?	Meridian agrees with the proposed trigger, namely: • An instruction to disconnect demand by the System Operator under clause 6(1) or 6(2) of Technical Code B of Schedule 8.3 of the Code; and • A real time dispatch schedule that indicates: ○ National shortage declaration: No binding transmission constraints present on the grid in either island, and the HVDC is in service and unconstrained; ○ Island shortage declaration: there is a binding transmission

		constraint on the HVDC (or it is out of service) and there is no binding transmission constraint on the AC transmission system in the island where the load was (or will be) shed.
11	What is your view of the trigger mechanism for revoking shortage declarations?	Meridian understands that the Authority to be distinguishing two matters: • Declaration of a shortage situation, whether by island or nationally; and • Application of scarcity pricing in the final pricing processes. Meridian agrees that all shortage declarations should be notified by the System Operator, and appear on the Wholesale Information Trading System (WITS). Meridian agrees that separate 'period by period' tests for transmission constraints should be applied in final pricing before 'scarcity pricing' become final prices.
12	What is your view of the proposed pre-dispatch and real time indicators for scarcity pricing?	Meridian agrees that the following information should be provided as indicators of the likelihood of scarcity pricing being applied: • Any expected deficit quantities for energy, FIR and SIR; • Expected binding transmission security constraints in each island; • Expected binding constraints limiting the flow of electricity on the HVDC link, or whether it is out of service. Meridian notes that it is not proposed to indicate scarcity pricing into scheduling time or real time dispatch schedules, and that these schedules would indicate forecast prices based on constraint violation penalties - $100,000/MWh for SIR/FIR and $500,000/MWh for energy. Meridian considers that this may lead to some confusion as to the likely level of scarcity pricing in final prices.

13	Which approach do you believe will best meet the Authority's statutory objective (and why): - a common value for the GWAP floor and cap of $10,000/MWh; or - a GWAP floor of $10,000/MWh and a cap of $20,000/MWh?	Meridian prefers the common GWAP floor and cap (at $10,000/MWh). This position reflects: • Agreement with the Authority that a common floor and cap value is likely to provide more certainty about the level of prices; • Acknowledgement that residential customers are more likely to be shed by distributors following instructions by the System Operator to conduct emergency load shedding, and that they typically have a lower value of lost load than industrials. Meridian considers that providing greater certainty for participants in the period up to the initial review period is important. The decision of whether there should be a common or separate values for the price floor and cap should be revisited in the review.
14	Which approach do you believe will best meet the Authority's statutory objective (and why): - scaled pricing approach; or - flat pricing approach?	Meridian supports the scaled price approach. While the flat price approach would appear to provide greater certainty, all the other criteria considered by the Authority favour the scaled price approach. Namely, locational signals, effect on locational risk management strategies, compatibility with locational price risk instruments, consistency between the energy and reserve prices, incentives to offer reserves and durability.
15	What is your view of the proposed approach to applying scarcity pricing across trading periods?	Meridian agrees with the Authority's proposal that final prices solve for scarcity pricing should be based on whether a shortage declaration was in effect at the start of the trading period.
16	What is your view of the proposed approach to treating differences between forecast and actual conditions?	Meridian agrees that for final prices to reflect scarcity values then the pricing manager should check whether the forecast shortage event conditions applied in practice. Meridian considers this is an important check to ensure that parties neither receive nor pay the scarcity price if no 'defined' shortage event has occurred.
17	What is your view of the proposed approach to HVDC rentals, and what alternative (if any) would you support	Meridian acknowledges that the Authority's proposed approach will impact the revenue adequacy of the proposed Benmore-Otahuhu FTR. As the

	and why?	Authority is aware Meridian is concerned about the potential disconnect between initiating the proposed FTR product, ahead of finalising the Authority's preferred approach to transmission pricing. This reflects the use of HVDC rentals to fund FTRs, rather than payment to South Island generators as payers of the HVDC charge.
18	What is your view of the proposed approach to implementing a scarcity pricing stop-loss mechanism?	Meridian agrees with the proposal that the stop-loss mechanism should be expressed in duration terms – for the common value (price cap and floor) a 16 hour cut off would apply in any seven day period.
19	What is your view of the proposed modification to final pricing when an IR shortfall occurs and an infeasible solution arises in final pricing?	Meridian supports the proposal to introduce a virtual provider of FIR and SIR in the final pricing solution, with the offer price set at the highest energy offer or reserve offer scheduled during the relevant trading period.
20	What is your view of the proposed information to be disclosed?	Meridian understands that the Authority is proposing that parties disclose on a rolling quarterly basis: a) The change in Net Cashflow after Operating Activities (NCFO), for each stress test; b) NCFO from the most recent set of annual audited accounts; c) The level of shareholder equity from the most recent set of annual audited accounts; and d) Forecast volume of load to be purchased from the spot market for each disclosing party. Further, that parties should certify that they have provided "information" to specific customers that would allow them to consider the impacts of the stress tests on themselves. The policy intent is that this information would be used by the Authority proposes for a variety of purposes including revealing financial interests in lobbying and improving confidence in security of supply. Meridian has no difficulty in disclosing (b) and (c). However, Meridian has serious reservations with the proposal that parties would be required to <u>certify</u> the change in NCFO (relative to a specified base case) following the application of the stress tests, and to <u>certify</u>

		forecast load. In summary, Meridian considers: • Any certification of the changed NCFO outcomes under the stress test would be accompanied by significant director qualifications and assumptions as to make the outcomes meaningless; • The same “perception” outcome can be achieved by parties certifying that they have done the tests and discussed the results with their respective Boards; • Any disclosure of the numbers poses significant risks that parties contract positions will be disclosed, prejudicing future hedge contract negotiations; • Disclosure of the numbers (even in aggregate) would be meaningless and potentially conflict with other disclosure regimes participants are subject to; • Pursuit of financial numbers focuses on the wrong outcome – scarcity pricing is supposed to address concerns relating to price suppression and increasing awareness of the impacts of a range of market outcomes rather than on the financial capability of market participants (as that is something that directors have obligations in respect of); • The requirement to certify that information has been provided to customers is vague and will lead to defensive lengthy disclosure certificates. A better focus would be a focussed education campaign; • Certifying forecast load only reflects a ‘point in time’ and will not take account of decisions that may be made as the likelihood of a stress event occurring changes. As a responsible market participant Meridian assesses the impact of a wide range of market scenarios (stress tests) regularly and reports these to both the executive team and Meridian’s Board of Directors. Our internal governance structures require us (each year) to confirm or re-confirm the company’s Electricity Trading and Hedging Policy, and we are required to immediately report any breaches of these risk parameters to the Board, and take appropriate actions to remedy any such breaches.

		The information collected will have little value and will be a costly process (particularly with director sign-off required). Any certificate will need to be specific and almost mechanical, based upon a set of specific numeric "stress" assumptions in addition to the few assumptions stipulated by the Authority in the test. Because this will not involve any significant directorial or company judgement about combinations of circumstances which might lead to stress, its value will be minimal. Furthermore, there will be little a director can say as to whether all the data was loaded into the model and whether it functioned correctly. A director will merely be able to report on what he or she asked others to do. The stress test will be a projection of possible outcomes, based on the position of a participant at a particular time. The participant's position may be different the next day and in particular is likely to change if the likelihood of a stress event changes. That is, the actual behaviour of the companies in the quarter concerned will be based on a number of factors not incorporated into the stress test, and therefore necessarily will be different from the projected outcome. In the case of some generators, this could mean that they will project a given outcome under the stress test but, acting in the best interests of the company in the circumstances at the time, they may or will behave very differently. This will bring both the stress test, and (unfairly) the companies, into disrepute. The current proposed stress test attempts to identify the impact of the stress on the net revenues of the Participant. This does not tell the EA anything significant about the impact on supply or on consumers, other than a derived impact. A negative impact may just show that a particular scenario is very improbable (or that other mitigating steps will be available if it becomes more likely) rather than reflecting any mis-management of a Participant's position. Furthermore, the financial impact of the stress on a particular Participant could be positive, while detrimental for the rest of the market and for consumers, or it could be adverse for the Participant. The result is that the connection between the stress test and the impact on consumers is even less direct. For listed companies, the projections in the stress test may be different from the views they hold as to how they will behave and the consequent continuous disclosure obligations in the particular quarter. This will mean

		that their continuous disclosure obligations will differ from the stress test reporting, which may have unforeseen consequences for both reporting mechanisms.
		
		If participants are required to provide this information to the Authority, even with appropriate commercial sensitivity protections, it may create an expectation that this information should also be shared with shareholders.
		
		Meridian considers that the proposed obligation to certify that “information” has been provided to specific customers to allow them to consider the impacts of the stress tests on themselves is vague and will result in defensive lengthy disclosure certificates.
		
		Meridian agrees that it is important that customers who decide to adopt some level of spot exposure understand the potential outcome of such decisions when the market is under stress. The availability of simple models/tools on the Authority website in combination with the high level parameters suggested by the Authority for a variety of stress tests would likely assist some smaller customers assess the appropriateness of their risk management strategies. Meridian suggests that a focussed education campaign is likely to more value than requiring retailers to certify that they have provided “Authority stress test data” to their customers. Moreover, the practice of requiring directors to certify the provision of such information may place a greater weight on it as a predictor of future events (in the eyes of customers) than is appropriate. Has the Authority considered possible interactions with the Financial Service Act 2008.
		
		Meridian suggest that the Authority revise its proposal to the following:
		
		• Parties should be required to certify that:
		    o They have conducted the stress tests provided by the Authority;
		    o They have discussed the results with their Boards; and
		    o The results are consistent with any internal trading policies, which should imply that parties have sufficient capital reserves to manage through the various stress tests scenarios.
		
		• The Authority can seek an audit of the process of informing the

		Board (but not an audit of the modelling conducted).
		• Parties should disclose:
		  o Net Cashflow after Operating Activities (NCFO) from the most recent set of audited annual accounts; and
		  o The level of shareholder equity from the most recent set of audited annual accounts.
		• A guideline[2] should be developed that requires retailers to alert customers to the existence of models/tools/data on the Authority's website that will assist them to assess the effect of the Authority's stress tests on their risk management positions.
		In Meridian's view this will achieve the Authority's primary objective that parties should be considering a range of market stresses, and then as responsible directors/managers parties should take action to modify risk management positions if necessary and/or appropriate given their own internal risk management policies.

21	What is your view of the indicative stress test parameters?	The proposed stress tests illustrate the potential for extended high spot price periods (with and without conservation campaigns), and for short term capacity shortages. These tests will provide an indication of a set of possible outcomes, however as the Authority acknowledges there will be other scenarios where outcomes are more demanding, and each participant will need to exercise their own judgement about the risks they face.
22	What is your view of the proposed level of guidance to be provided to participants?	Meridian notes that the list of guidance outlined in Table 4 does not include prudentials. The requirement to place increased prudential security as prices rise may be an important factor for parties to consider when contemplating the implications of the stress tests. For some participants the parameters suggested are likely to be at too granular a level of detail. As suggested in response to Question 20, the

2 A guideline as opposed to a specific code or regulation requiring a director's certificate.

		development of some simplified tools by the Authority for the use of smaller participants may be appropriate. A key matter that needs attention is the Emergency Management Policy, and how it may need to be altered as a consequence of the Customer Compensation Scheme, and the scarcity pricing proposals for short term grid emergencies. As Meridian has previously raised, it is the interpretation of this policy particularly as storage declines and the security watch, alert and emergency phases are entered that will have a material impact on parties market operations and therefore their risk positions. Can the Authority confirm that there is a workstream planned to review and revise this policy in a transparent manner.
23	What is your view of the proposed frequency of reporting?	Meridian considers that submitting a certificate (in the form outlined in response to question 20) no later than 5 business days before the beginning of a quarter would be reasonable.
24	What is your view of the proposed coverage of a disclosure obligation?	Meridian agrees that it is appropriate that non-participants should consider the potential consequences of spot prices arising under the different scenarios. However, Meridian considers that the Authority is likely to achieve much of its aims in this space by a focussed education campaign rather than requiring certification by retailers that they have had informed conversations with spot exposed customers of the risks of the Authority's stress tests, which will just encourage lengthy disclosure certificates.
25	What is your view of how information disclosed could be used?	Meridian has serious concerns with the Authority's proposal to publish a summary report of the disclosures made. Meridian anticipates that even if the data points are not 'named' that it will be possible to identify participants, which could have serious consequences for future hedge contract discussions, and potentially parties' spot market strategies. As a consequence, Meridian's view is that no form of publication should be made whether in figure, table or aggregate format. Meridian is also concerned with the suggestion that the Authority may use the information provided as part of its general market monitoring activities and general code development activities. The information that the

		Authority is suggesting parties disclose is forecast information which will be commercially sensitive. In Meridian's view information relating to a change in NCFO should not be provided. If the Authority does not take on board Meridian's suggestions for a limited form of certificate, Meridian would like the Authority to place strict controls on how this information is held, and be transparent as to what it can be used for. Meridian considers that it should not be available for any other activity the Authority might undertake. The Authority is able to request specific data when it is undertaking particular market monitoring activities and any NCFO data provided to the Authority under the "stress test code" should <u>not</u> be part of this set of information.
26	What is your view of the proposed compliance and auditing arrangements?	Meridian has suggested some amendments to the Authority's proposed stress test certificate (see question 20 above). With respect to auditing, Meridian is comfortable with the Authority being able to request an audit that papers were provided to the Board, and that the minutes recorded than the Board has considered the information provided to it in relation to the Authority's stress tests. Meridian does not consider it appropriate that the Authority should be able to request an audit of any modelling analysis undertaken, nor be able to question any judgements/caveats made to the disclosure certificate. Clause 13.326F gives the EA power to carry out an audit (at the participant's cost). This appears to be an attempt to extend the EA's information gathering and enforcement powers under s45 of the Act and would seem to be *ultra vires*.
27	What is your view of the proposals when assessed against the Authority's statutory objective?	Meridian agrees that the scarcity pricing proposals (short term grid emergency load shedding) is likely to be consistent with the 'competition', 'reliability' and 'efficient operation' limbs of the Authority's statutory objective. Meridian is concerned that the Authority's proposal in relation to stress tests, and specifically the proposal that parties certify a change in NCFO,

		is not consistent with the Authority's statutory objective. This reflects concerns regarding how the Authority may use/disclose this information via figures, such as Figure 6 in the consultation paper and the effect this could have on parties seeking hedge contracts, and generally on other parties market operation strategies. Meridian considers that the Authority's aims with respect encouraging a more active hedge market, and ensuring that parties do not rely on political hedges can be achieved by Meridian's amended stress test certificate proposal. Thus, Meridian's amended proposal is consistent with the Authority's statutory objective.
28	What is your view of the alternative means of achieving the objectives of the proposed scarcity pricing and stress-testing regime?	Meridian agrees that the Authority's proposals with respect to scarcity pricing and (with some amendments) the stress tests are preferable to introducing capacity payments or a single buyer model. Meridian agrees that the option of a short term commitment market (or day ahead market) could be considered as a way of encouraging greater demand side participation in the wholesale market. However, it is not clear whether it is necessary at this point in time.
29	What is your view of the costs and benefits of the proposed scarcity pricing changes?	Meridian considers that there is likely to be positive net benefit from the narrow form of scarcity pricing proposed relative to the status quo.
30	What is your view of the costs and benefits of the proposed stress testing regime?	Meridian considers that there is likely to be a positive net benefit from requiring participants to undertake stress tests, and to discuss the results of these with their respective Boards. Meridian does not think that it is necessary to extend the form of the disclosure to include certifying the change in NCFO from undertaking these stress tests to achieve a positive net benefit.
31	Do you propose any changes to the proposed Code amendments set out in Appendix C?	See Appendix B to Meridian's submission.