



MAJOR ELECTRICITY USERS' GROUP

20 July 2007

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Electricity Commission
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Dear Jenny

Submission on Market Design Review – Survey of Market Performance

1. This is a submission by the Major Electricity Users' Group (MEUG) on the Electricity Commission (the "Commission") Issues Paper *Survey of Market Performance – Market Design Review*, published 21 May 2007.
2. The Issues Paper has some useful and never seen before analysis. Overall the paper has added to the way in which MEUG and other parties can view the market and hence consider how it can be continuously improved. It will be interesting to see what emerges in the next phases of this work.
3. Appendix 1 lists detailed comments on the observations and questions in the Issues paper.
4. The scope of the issues paper is relatively narrow. MEUG note:

- a) There appears to be a presumption that Cabinet late last year accepted the current electricity market design and the focus of work should now be on incremental improvements. MEUG agree with incrementally improving the existing market but at the same time we still believe a fundamental review of the total market design including the institutional and regulatory arrangements is needed.

The Cabinet consideration late last year of overseas practice was relatively limited. Conclusions reached regarding the UK market, that is that it probably wouldn't be suitable for New Zealand, appear reasonable. However other newer electricity market designs weren't considered. For example the energy only Texas market and the Chilean market should be reviewed (Chile also has a long thin grid with remote generation).

- b) Other policy parameters outside the scope of the Issues Paper but relevant to improving the performance of the supply side of the electricity sector include the role of the Commission, the behaviour of SOE suppliers compared to listed companies, the RMA and current reviews of the control and authorisation provisions of the Commerce Act.

Appendix 2 contains a matrix summarising various policy issues that also need to be addressed to improve the electricity market compared to the scope of the Issues paper review

5. Within the scope of the review itself MEUG note:
- a) One significant issue not considered was the perception that the 5 largest vertically integrated suppliers have since the market commenced in 1996 made excessive profits. This issue is commented on in a submission by the Consumer Coalition on Energy (CC93). MEUG is a participant in CC93 and endorses that submission.
- As well as excess profits there is also a question about the relative efficiency of suppliers in NZ compared to best practice overseas. The analysis of retailer margins in the Issues Paper is useful because there has been little published work on margins. However MEUG suggest this is a good start at looking at margins rather than the definitive and final view. For example the paper notes a wide difference between reported retailer operating costs in NZ and Australia. More work to understand this difference and ensure reported cost and margin data from retailers is comparable is needed.
- b) The importance of access to accurate and timely information to allow parties to make investment or purchasing decisions that are efficient is identified as a key issue in the Issues Paper. MEUG fully support this observation. Ever since the Commission began asking participants what are the key issues that need to be addressed to improve the market, MEUG has consistently noted that improving information flows was fundamental. It's very disappointing that almost 4 years after the Commission commenced, some additional information is available, but still most market information is only available by subscription through COMIT.
- c) Confidence in the market has often slumped when unexpected outages occur and prices spike. Changes to the rules for spring washer events will assist in resolving this issue. However there may still be a residual issue on whether there is a pattern whereby for similar events the same parties can expect to be in a position of market power. For example can incumbent suppliers rely on that sustained pattern for such events to exploit financial derivatives offered to new entrant generators?
- d) The paper interpolates from the UMR survey of 2005 that "hedges were available, at that time at least." There is a sense from the Issues Paper that the hedge market isn't that bad. MEUG does not think the UMR survey or the analysis in the Issues Paper can support that conclusion. For example hedges available from suppliers might always exceed demand, but the price for the last hedge on the supply curve might be far in excess of the hedge market clearing price.
- Later in the discussion on hedges an estimate of Long Run Marginal Cost (LRMC) is made and a comparison made against recent forward prices. The result being that the two are relatively closely aligned. MEUG believe the LRMC estimates are overstated because of the assumption in the Issues Paper that there will be a C-tax or equivalent in 2009 and 2010. If MEUG is correct, then the forward prices in the near term exceed the LRMC.
6. MEUG appreciates the opportunities the Commission have given to MEUG members to be briefed and ask questions as the Commission and advisors were drafting the Issues Paper and following publication of the final paper. We look forward to working with the Commission on the future phases of this work.

Yours sincerely



Ralph Matthes
Executive Director

Appendix 1: MEUG comments on observations and questions in EC Issues Paper, *Survey of Market Performance – Market Design Review*

Summary observations on market information (p1-5)	MEUG comment
A range of data related issues make it challenging to analyse some aspects of electricity market performance in New Zealand	Agree.
The provision of accurate and reasonably accessible information on market performance would appear to be an important element in a well functioning market	Agree.
There is a case for examining current arrangements to improve the coverage, consistency and accessibility of market information	Agree.
<ul style="list-style-type: none"> ▪ To what extent do you agree with these observations? 	See comments above
<ul style="list-style-type: none"> ▪ What issues would you regard as important in improving information quality and accessibility? 	MEUG is particularly concerned that not all COMIT information is available free-to-air on a user beware basis in terms of access to the web. Only parties that wish to have a secure link to COMIT should pay for that extra service.
<ul style="list-style-type: none"> ▪ To what extent do you consider information quality/accessibility issues will be adequately addressed under existing Commission work programmes? 	MEUG has been very disappointed at the lack of progress on this issue even though it has been recognized as a priority issue for some time. With the completion of new service provider contracts there may be an opportunity for this work to gain new traction. Some decisions on information that has been published have also been less than helpful. For example bid and offer information still has a 2 week lag before being published. This doesn't help for unexpected events when timely access to actual bid and offer data might assist interested parties determine if use of market power was occurring during the event.
<ul style="list-style-type: none"> ▪ To what extent should more detailed examination of information quality/accessibility issues be treated as a high priority in the next stage of the Market Design Review? If so, what aspects and why? 	Priority should depend on how the NPV of expected economic efficiency gains ranks against that of other work
Summary observations on reliability of supply (p2-8)	MEUG comment
Average reliability experienced by customers has been fairly stable through the 1995-2005 period. If anything, the data indicates an improvement in terms of reduced frequency and lost time from interruptions. New Zealand's performance also appears to be within the range of international experience – though more like that in Australia than Europe or North America	Not sure. Should test this observation by a statistical analysis (although the time series may be too short).
The frequency of 'voluntary demand restraint' sought to address unusually dry conditions appears to be within the range of historical norms	The public appetite or preparedness to do the right thing for the nation has also changed though.

Most (if not all) developed countries appear to have experienced at least one major outage affecting a large number of customers at some point in the 1995-2007 period	Noted.
<ul style="list-style-type: none"> ▪ To what extent do you agree with these observations? 	See comments above.
<ul style="list-style-type: none"> ▪ What other issues would you regard as important in analysing end user reliability of supply? 	MEUG suggest caution in examining SIADI/CAIDI and other reliability statistics without also understanding any trade-off against price. For example some rural consumers may have poor reliability statistics but they may also get a subsidised price. The Commerce Commission through the threshold regime considers this quality and price trade-off.
<ul style="list-style-type: none"> ▪ To what extent do you consider end-user reliability issues will be adequately addressed under existing Commission work programmes? 	Probably better addressed by the Commerce Commission because most unplanned outages occur with the distribution networks (only occasionally transmission) and those statistics are monitored as part of the threshold regime.
<ul style="list-style-type: none"> ▪ To what extent should more detailed examination of end-user reliability issues be treated as a high priority in the next stage of the Market Design Review? If so, what aspects and why? 	See comment above

Summary observations on other service quality indicators (p2-12)**MEUG comment**

There is little information available on service quality at the aggregate level – to the extent that data exists, it is based on reports by industry bodies that address customer complaints, and periodic surveys by the Consumers Institute;	Agree.
The frequency of reported complaints in New Zealand appears to have been fairly steady at around 1 complaint per year for each 1,000 customers, which is broadly comparable the levels reported in the United Kingdom and New South Wales, and lower than that reported in Victoria	Noted.
Survey data on customer satisfaction suggests a significant improvement on average between 2001 and 2005, with little aggregate change showing in the survey results for the following year. However, the number of consumers reporting a problem with their supplier appears to have risen between 2005 and 2006	Noted.
<ul style="list-style-type: none"> ▪ To what extent do you agree with these observations? 	See comments above.
<ul style="list-style-type: none"> ▪ What other issues would you regard as important in analysing service quality? 	-
<ul style="list-style-type: none"> ▪ To what extent do you consider that service quality issues will be adequately addressed under existing Commission work programmes? 	Not confident at all given recent EC announcement to remove the opportunity for competing consumer complaint regimes to be established.
<ul style="list-style-type: none"> ▪ To what extent should more detailed examination of service quality issues be treated as a high priority in the next stage of the Market Design Review? If so, what aspects and why? 	Priority should depend on how the NPV of expected economic efficiency gains ranks against that of other work.

Summary observations on end-user pricing (p2-20)**MEUG comment**

End-user prices averaged over all customer types have fluctuated in real terms over the 25 years to 2005, but show little overall trend during the period	Agree.
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While average national prices in real terms show no strong trend, price trends differ markedly by customer group – residential user prices have risen substantially over the period, commercial prices have generally trended down, and industrial prices have been fairly flat (though all have shown some shorter term variations up and down);	Agree.
This pattern of price movement began before market arrangements were introduced in the mid-1990s – and has continued in the post-market period, though with an aggregate trend upward through most of the latter part of the period;	Agree.
Despite rising residential electricity prices, the proportion of average household expenditure devoted to fuel and power has remained around 2.5-3 percent during the period 1998-2004 – this is similar to the proportion in Australia	Agree but relevance questionable. For example the ratio may have been stable and comparable for many years, but if the cost of power production and distribution in NZ had been significantly lower (eg NZ had much lower relative gas prices for power stations), then the difference would have represented a wind fall to suppliers and consumers would have been over-paying.
New Zealand's electricity prices have generally been ranked in the lower half of prices among IEA member countries – with industrial rankings frequently lower than residential rankings. New Zealand's relative ranking appears to have deteriorated somewhat through time, but there are sizeable year to year shifts (which may be reflect shorter term movements in exchange rates)	IEA data is fairly crude and out dated but unfortunately it's about the only public information available to compare prices between several countries. Because NZ competes with South American countries that also have a significant fraction of their economies dependent on pastoral farming and forestry exports, a better statistic to track would be to compare NZ non-household prices with those countries.
IEA data indicates that New Zealand electricity prices are lower than Australia for average industrial users, and higher than Australia for average residential customers	There is better data for Australian wholesale market prices than the IEA data on the d-cypha Futures Market (http://d-cyphatrade.com.au/). When combined with the latest NZ/AUD exchange rate, the forward curve for eastern seaboard Australian states has for this year, apart from a few days, been less than the forward curve for the NZ spot market from www.energyhedge.co.nz .
<ul style="list-style-type: none"> ▪ To what extent do you agree with these observations? 	See comments above.
<ul style="list-style-type: none"> ▪ What other issues would you regard as important in assessing price movements? 	-
<ul style="list-style-type: none"> ▪ To what extent do you consider that price issues will be adequately addressed under existing Commission work programmes? 	Comparing NZ electricity prices with comparable countries is probably best undertaken by MED.
<ul style="list-style-type: none"> ▪ To what extent should more detailed examination of price issues be treated as a high priority in the next stage of the Market Design Review? If so, what aspects and why? 	Priority should depend on how the NPV of expected economic efficiency gains ranks against that of other work
Summary observations on retail margins (p 2-32)	MEUG comment
Assuming the data and methodology are robust, the high level analysis of retail margins set out above suggests that:	Assumptions used in the analysis have some wide variances and hence some of the observations listed may be debatable.

	<p>For example footnote 19 on page 2-25 reports Frontier Economics estimated retail operating costs for Australia to be A\$60-80/customer /year. For the Issues paper the retail operating costs is assumed to be NZ\$170/customer/year. This is a very wide discrepancy and should be investigated further.</p> <p>Anecdotally retailers have reported over a thousand different distribution tariffs they need to integrate into the retail products they market. This issue should be analysed to determine if there is a trend for the number of distribution tariffs to become smaller or greater. If there isn't a trend to rationalize these, then this potentially is a barrier to competition.</p>
<ul style="list-style-type: none"> - Average incumbent margins in New Zealand (based on the weighted average for the network areas considered) appear to lie between the regulatory benchmarks adopted by Australian regulators for default tariffs, and the actual margins observed for major Australian energy retailers; 	See above.
<ul style="list-style-type: none"> - Margins appear to have moved up and down through time, reflecting movements in retail tariffs and wholesale energy costs, among other factors; 	See above.
<ul style="list-style-type: none"> - There is considerable variation in incumbent margins across network areas, with higher margins to some extent correlated with smaller network size – however this apparent correlation may reflect an underlying third variable (e.g. regional spot price variability) rather than network size per se; 	See above.
<ul style="list-style-type: none"> - In the areas with higher incumbent margins, there appear to be competitors offering service at lower prices; and 	See above.
<ul style="list-style-type: none"> - To the extent that regional variations in incumbent margins are persistent, this raises questions as to whether such customers find it more difficult to 'shop around', and/or other competing suppliers are less inclined to actively market to these customers. 	See above.
<ul style="list-style-type: none"> ▪ To what extent do you agree with these observations? 	See comments above.
<ul style="list-style-type: none"> ▪ What other issues would you regard as important in analysing retail margins? 	-
<ul style="list-style-type: none"> ▪ To what extent do you consider that retail margins will be adequately addressed under existing Commission work programmes? 	-
<ul style="list-style-type: none"> ▪ To what extent should more detailed examination of retail margins be treated as a high priority in the next stage of the Market Design Review? If so, what aspects and why? 	Priority should depend on how the NPV of expected economic efficiency gains ranks against that of other work
<p>Summary observations on retail competition indicators (p2-40)</p>	<p>MEUG comment</p>
<p>The retail market is highly concentrated, with the five main parties (all integrated generator-retailers) accounting for over 90 percent of the market by ICPs</p>	Noted.
<p>The retail market has tended to consolidate through time, although some niche players have recently entered the market</p>	Noted.
<p>Annual retail market shares have been fairly stable in ICP terms, but there have been changes over time.</p>	At a regional level there has been some swapping of household customer bases between retailers to reduce nodal

Market shares appear somewhat more fluid in energy terms	price risk.
National retail switching (as measured by ICP switches) has run at around 10 percent for the last few years – which appears comparable with many other deregulated electricity markets	Noted.
Survey data indicates that a sizeable proportion of customers (almost 50%) had difficulties with switching in the early period when residential customers could choose their supplier – more recent data suggests that problems have reduced, though around 10%-15% still reported problems with switching	Noted.
Retail churn varies markedly across network areas – raising questions as to the underlying causes for the variability	Agree.
<ul style="list-style-type: none"> ▪ To what extent do you agree with these observations? 	See comments above
<ul style="list-style-type: none"> ▪ What other issues would you regard as important in analysing retail competition indicators? 	<ol style="list-style-type: none"> 1. Comparing over time the transparency of retailer services offerings would be a useful measure. A quick check of retailer web sites found some did not advertise their non-TOU rates at all. This doesn't help competition. 2. Transparency of cost components on invoices. Some retailers provide very good breakdown of costs (eg Mercury Energy for customers supplied in Auckland) whereas others don't. 3. An issue that could be analysed is how and whether some revenue wind falls are passed by retailers back to consumers. For example loss and constraint receipts. Another example is the recent wind fall of approximately \$55m in transmission rebates being the rebate by Transpower for the 19% increase for the year ended 31 March 2007. Some retailers have passed this money back, others have not and in several cases it's still unclear where the money has gone. Either the Electricity Commission or the Commerce Commission should be investigating this particular issue as the sum of money involved is significant. 4. A useful statistic would be to measure the number of unsolicited calls retailers made to expand market share. In a healthy market retailers would be constantly seeking to expand their market share. 5. Another measure of vigorous competition might be to measure advertising expenditure inviting consumers to switch supplier (as opposed to generic advertising to garner support for wind or other generation proposals).
<ul style="list-style-type: none"> ▪ To what extent do you consider that retail competition will be adequately addressed under existing Commission work programmes? 	-

<ul style="list-style-type: none"> ▪ To what extent should more detailed examination of retail competition be treated as a high priority in the next stage of the Market Design Review? If so, what aspects and why? 	Priority should depend on how the NPV of expected economic efficiency gains ranks against that of other work
Summary observations on capacity margin through time (p3-6)	MEUG comment
Dry year security margins were relatively low in the early 1970s, as a result of higher than anticipated demand growth, leading to some supply shortages	Noted.
A series of major power station developments through the late 1970s and 1980s expanded dry year security margins as the growth in supply outstripped falling demand growth rates	Noted.
ECNZ inherited a significant surplus of capacity when it was established in 1987 and put in place a pause in new investment to allow demand to catch up with supply	Noted.
Over the period of operation of the wholesale electricity market, market participants have developed and delivered investment in new power stations that has led to dry year margins averaging about 10%. This is less than provided during the surplus of the late 1970s and 1980s, but more than provided in the early 1970s; and	Noted.
This 10% dry year margin appears to be higher than required by the standard applied by NZED when the system was centrally planned and appears to be higher than the "optimal" standard suggested by Castalia Strategic Advisors in its recent draft review of the New Zealand Reserve Energy Policy	Agreed.
<ul style="list-style-type: none"> ▪ To what extent do you agree with these observations? 	See comments above
<ul style="list-style-type: none"> ▪ What other issues would you regard as important in analysing past security margins? 	-
<ul style="list-style-type: none"> ▪ To what extent do you consider that security margins have been adequately addressed under existing Commission work programmes? 	The recent work by Castalia for the EC has been useful
<ul style="list-style-type: none"> ▪ To what extent should more detailed examination of security margins be treated as a high priority in the next stage of the Market Design Review? If so, what aspects and why? 	Priority should depend on how the NPV of expected economic efficiency gains ranks against that of other work
Summary observations on possible future capacity margin (p3-10)	MEUG comment
The commissioning of projects that are under construction and where firm commercial commitments have been made to proceed will lift security margins to levels which are comparable with the average over the period 1990-2005	Likely but still only a forecast. What matters is whether the incentives are better today than they were a few years ago to get the market to make investment (and this includes investment in buy-back products if needed) for security of supply rather than government intervening.
Looking further ahead, it is not possible to form a definitive view on security margins because projects have not been committed. However, the volume of projects being progressed in the development 'pipeline' is sufficient to cover net demand growth for a significant number of years. Even allowing for significant project deferrals, there appear to be sufficient new projects being considered to provide the potential for security margins to be maintained at reasonable levels.	See above.
<ul style="list-style-type: none"> ▪ To what extent do you agree with these observations? 	See comments above
<ul style="list-style-type: none"> ▪ What other issues would you regard as important in analysing future security margins? 	-
<ul style="list-style-type: none"> ▪ To what extent do you consider that future security margins will be adequately addressed under 	MEUG has separately submitted on the Castalia review.

existing Commission work programmes?	
<ul style="list-style-type: none"> ▪ To what extent should more detailed examination of future security margins be treated as a high priority in the next stage of the Market Design Review? If so, what aspects and why? 	Priority should depend on how the NPV of expected economic efficiency gains ranks against that of other work
Summary observations on medium term coordination (p3-23)	MEUG comment
Hydro/thermal operation, in both pre-and post-market time periods, appears to exhibit relatively close coordination, with thermal generation responding to changes in hydro inflows and storage conditions	A statistical test of correlation would have been helpful to prove this point.
Hydro spill data suggests that spill risks have been managed in the market, and signaled in prices	Noted.
Non-hydro plant generally appears to run in a merit order that corresponds with estimates of relativities among short run marginal costs	Noted.
Shorter term wholesale price variations are considerably more volatile but appear to more strongly reflect prevailing hydro supply conditions than prior to market commencement	Unsure. There is a possibility of short-term use of market power by one or two suppliers when unexpected events. As long as those events are random and the supplier(s) having market power are not consistently the same one or two participants, then there may be no market power issues when unexpected events occur. However if there is a pattern where only one or two suppliers benefit from certain events, then that potentially is a sustained market power issue.
<ul style="list-style-type: none"> ▪ To what extent do you agree with these observations? 	See comments above
<ul style="list-style-type: none"> ▪ What other issues would you regard as important in analysing medium term coordination? 	The term "coordination" has the connotation of central planning. Perhaps "efficient use of resources" is a better phrase.
<ul style="list-style-type: none"> ▪ To what extent do you consider that medium term coordination issues will be adequately addressed under existing Commission work programmes? 	-
<ul style="list-style-type: none"> ▪ To what extent should more detailed examination of medium term coordination issues be treated as a high priority in the next stage of the Market Design Review? If so, what aspects and why? 	Priority should depend on how the NPV of expected economic efficiency gains ranks against that of other work
Summary observations on real time security/coordination (p3-39)	MEUG comment
Existing processes rely on market participants providing sufficient generation/load response options for the system operator to dispatch in real time – participants offer these resources in response to short term market forecasts and/or warning/ emergency notices issued by the system operator	Noted.
Examination of system operator notices and offer data presents a mixed picture of short term risk - on the one hand, there have been instances in the last 18 months where the System Operator has issued demand curtailment notices. On the other hand, the frequency of standby residual notices has diminished, and although margins were typically less in 2006, analysis of offered and actual supply does not suggest any year on year deterioration in generation margins	Noted.
More detailed analysis would be needed to determine whether other factors could mask potential problems, for example, local transmission constraints affecting offered supply	Noted.

While the current picture is unclear, looking further ahead, it does appear that a number of trends will increase the challenges of maintaining short term security – especially increasing levels of inflexible or intermittent generation on the system	Agreed. Another factor is the increasingly constrained grid. Offsetting this will be advances in technology.
<ul style="list-style-type: none"> ▪ To what extent do you agree with these observations? 	See comments above.
<ul style="list-style-type: none"> ▪ What other issues would you regard as important in analysing real time security/coordination? 	-
<ul style="list-style-type: none"> ▪ To what extent do you consider that real time security/coordination will be adequately addressed under existing Commission work programmes? 	-
<ul style="list-style-type: none"> ▪ To what extent should more detailed examination of real time security/coordination be treated as a high priority in the next stage of the Market Design Review? If so, what aspects and why? 	Priority should depend on how the NPV of expected economic efficiency gains ranks against that of other work
Summary observations on availability and terms of forward contracts (p3-45)	MEUG comment
UMR's survey in 2005 indicates that wholesale purchasers were relatively highly hedged, for both the year ahead and over a longer period – suggesting that hedges were available, at that time at least	It's not clear what would have been the most efficient level of forward hedging when the UMR survey was undertaken and hence whether or not the observation that there was a relatively high level of financial derivatives held. For example it may have been that consumers were so fearful of suffering high losses in a supplier dominated spot market that they over-hedged – even at excessive prices for those financial derivatives.
However, the survey also indicates both users and suppliers have concerns about the competitiveness of the hedge contract market; and	Noted.
The contract terms which are seen as most important are price, duration, location and force majeure/suspension clauses	Agreed.
<ul style="list-style-type: none"> ▪ To what extent do you agree with these observations? 	See comments above.
<ul style="list-style-type: none"> ▪ What other issues would you regard as important in assessing forward contract availability? 	Having to obtain a Dealers License to offer and trade in financial derivatives may also have been a barrier to new entrants.
<ul style="list-style-type: none"> ▪ To what extent do you consider that forward contract availability will be adequately addressed under existing Commission work programmes? 	Work by suppliers in collaboration with wholesale end users' plus the EC Hedge Market Development Steering Group has been useful and is likely to continue to be useful.
<ul style="list-style-type: none"> ▪ To what extent should more detailed examination of forward contract availability be treated as a high priority in the next stage of the Market Design Review? If so, what aspects and why? 	Priority should depend on how the NPV of expected economic efficiency gains ranks against that of other work
Summary observations on availability of forward contract prices (p3-48)	MEUG comment
Both purchasers and suppliers appear to have concerns about the scarcity of information on forward contract prices	Agreed.
Actual deals/offers are regarded as the most useful information source – with EnergyHedge being the only other source seen as moderately useful by both users and suppliers; and	Agreed.

Improving information on forward contracts prices should be an important priority	Agreed.
<ul style="list-style-type: none"> ▪ To what extent do you agree with these observations? 	See comments above.
<ul style="list-style-type: none"> ▪ What other issues would you regard as important in assessing availability of forward contract prices? 	More standardised terms. The market appears to have moved already in that direction by adoption of a standard ISDA and confirmation sheet for Energyhedge trades and this is also voluntarily becoming the standard for bi-lateral financial derivative contracts.
<ul style="list-style-type: none"> ▪ To what extent do you consider that availability of information on forward contract prices will be adequately addressed under existing Commission work programmes? 	Work by suppliers in collaboration with wholesale end users' plus the EC Hedge Market Development Steering Group has been useful and is likely to continue to be useful.
<ul style="list-style-type: none"> ▪ To what extent should more detailed examination of availability of information on forward contract prices be treated as a high priority in the next stage of the Market Design Review? If so, what aspects and why? 	Priority should depend on how the NPV of expected economic efficiency gains ranks against that of other work
Summary observations on available contract price indicators (p3-52)	MEUG comment
While some data on forward contract prices is available, the sources are diverse and it is not possible to compile a series that is entirely consistent through time. Instead, it is necessary to look at trends based on a number of contract price 'indicators'	Agreed.
The available contract price indicators have tended to follow a similar track to movements in average spot prices. This is true both in terms of trend (a strong upward movement post-2000), and in relation to shorter term variations. For example, during the 1998-2000 period, there appears to have been a softening in spot and contract price indicators, which was subsequently reversed; and	Agreed.
The available indicators suggest that in terms of directional changes, contract prices have risen/fallen in response to movements in the dry year supply margin. However, the data is not sufficient robust to draw any conclusions about the magnitude of movements	Agreed.
<ul style="list-style-type: none"> ▪ To what extent do you agree with these observations? 	See comments above
<ul style="list-style-type: none"> ▪ What other issues would you regard as important in comparing contract price indicators? 	-
<ul style="list-style-type: none"> ▪ To what extent do you consider that assessment of contract price indicators will be adequately addressed under existing Commission work programmes? 	If the proposed mandatory publication of contract information as proposed by the Hedge Market Development Steering Group is adopted then this will improve the ability of parties to construct and view changes in a contracts forward curve.
<ul style="list-style-type: none"> ▪ To what extent should more detailed examination of contract price indicators be treated as a high priority in the next stage of the Market Design Review? If so, what aspects and why? 	Priority should depend on how the NPV of expected economic efficiency gains ranks against that of other work
Summary observations on LRM compared to wholesale electricity prices (p3-58)	MEUG comment
While each has shortcomings, the best available indicators of actual wholesale electricity contract prices for comparison with LRM appear to be the NZTF index and EnergyHedge;	Noted. The assumptions used to estimate LRM include \$15/t CO ₂ charge in 2008 and 2009 (refer paragraph 261 of the Issues paper). In the view of MEUG this is unlikely because the

	legislative and administrative machinery will take longer than this to implement. Even then MEUG believe there will be no political consensus in NZ until after the next general election and even then we and the rest of the world are unlikely to make significant steps (and a \$15/t CO ₂ charge would be significant) until the US and major developing countries decide their next steps. Therefore the LRMC estimates in the Issues Paper are overstated for the near term.
Using these benchmarks as sources, actual wholesale electricity contract prices appear to have followed a similar track to LRMC, although there have been periods where they have been above or below estimated LRMC. In the case of the NZTF index, changes in hydrology are likely to play some influence, and for this reason EnergyHedge is likely to be a more appropriate indicator of the relativity between contract prices and LRMC; and	Noted.
Based on the EnergyHedge data that is available, and allowing for LRMC estimation uncertainty, there does not appear to be evidence that wholesale contract prices have been persistently overshooting LRMC	The Energyhedge time series is probably too short to prove this observation statistically. This observation cannot be proved or disproved because the data going back to 1996 does not exist.
<ul style="list-style-type: none"> ▪ To what extent do you agree with these observations? 	See comments above
<ul style="list-style-type: none"> ▪ What other issues would you regard as important in assessing LRMC and wholesale prices? 	Capital intensive commodity suppliers typically have boom and bust product prices. Arguably this doesn't appear to be the case with NZ electricity generators. If there is a relatively close correlation of profits with business cycles (as opposed to accentuated boom and bust cycles) then the efficient WACC for generators should be relatively modest. It would be interesting to make that analysis.
<ul style="list-style-type: none"> ▪ To what extent do you consider that assessing the relationship between LRMC and wholesale prices will be adequately addressed under existing Commission work programmes? 	Don't believe this is considered at all in the existing programmes.
<ul style="list-style-type: none"> ▪ To what extent should more detailed examination of LRMC and wholesale prices be treated as a high priority in the next stage of the Market Design Review? If so, what aspects and why? 	Priority should depend on how the NPV of expected economic efficiency gains ranks against that of other work.

Summary observations on generation competition indicators (p3-61)

MEUG comment

The generation market is highly concentrated, with the five main parties (all integrated generator-retailers) accounting for over 90 percent of the market by capacity	Agree.
Capacity shares show some change through time, reflecting the building and retirement of plant, and the sale/purchase of existing assets. Both Contact and Genesis have seen sizeable upward movements in their capacity shares over the 1999-2007 period, whereas the capacity shares for the other major integrated participants have shown a more gradual increase. The capacity share attributed to parties outside the five main integrated participants has substantially declined over this time; and	Noted.
While some new entry has occurred into the generation sector in the 1999-2007 period, the scale has	Noted.

been relatively small (only two parties entered and remain operating as at 2007). In addition, the five main integrated parties account for 88 percent of the generation capacity built over this period	
▪ To what extent do you agree with these observations?	See comments above
▪ What other issues would you regard as important in analyzing generation competition indicators?	Assessing whether excess profits have been consistently earned over since the market commenced in 1996. This issue is noted in a separate submission by CC93.
▪ To what extent do you consider that generation competition will be adequately addressed under existing Commission work programmes?	Unsure. MEUG support the strategy of making incremental changes such as introducing mandatory disclosure of contracts and assessing the impact of that change before considering if further steps are needed. In addition we have requested the government undertake a more comprehensive review of the market that would consider the governance arrangements of the various regulatory bodies including the EC. That issue is for government to consider rather than the EC.
▪ To what extent should more detailed examination of generation competition be treated as a high priority in the next stage of the Market Design Review? If so, what aspects and why?	Priority should depend on how the NPV of expected economic efficiency gains ranks against that of other work.

Summary observations on instantaneous reserves market (p3-65)**MEUG comment**

The interaction between instantaneous reserves and energy markets and the level of competition to provide instantaneous reserves appears to suggest that the instantaneous reserves market is reasonably effective, though there may also be opportunities to reduce the cost of procurement, e.g. through greater reliance on South Island instantaneous reserves	Agree
▪ To what extent do you agree with these observations?	See comments above
▪ What other issues would you regard as important in assessing the instantaneous reserves market?	-
▪ To what extent do you consider that issues with the instantaneous reserves market will be adequately addressed under existing Commission work programmes?	-
▪ To what extent should more detailed examination of the instantaneous reserves market be treated as a high priority in the next stage of the Market Design Review? If so, what aspects and why?	Priority should depend on how the NPV of expected economic efficiency gains ranks against that of other work

Summary observations on frequency keeping market (p3-67)**MEUG comment**

Frequency keeping costs appear to be linked to energy market prices	Need to test this inferred relationship statistically. MEUG believe that with such limited supply competition there is a high risk of use of market power.
Procurement costs have tended to rise over time in each island although there has recently been a trend of falling monthly procurement costs	-
The level of frequency keeping services can be expected to increase as more intermittent generation connects to the system	Agree and this observation has been confirmed by the detailed Wind reports recently published by the EC.

▪ To what extent do you agree with these observations?	See comments above
▪ What other issues would you regard as important in assessing the frequency keeping market?	Completion of the Market Systems Project
▪ To what extent do you consider that issues with the frequency keeping market will be adequately addressed under existing Commission work programmes?	Eventually. An issue for MEUG is that the changes being considered by the EC will not be possible until after the Market Systems Project has been operating for several months. Therefore changes to improve competition might not be possible until late 2008 or even early 2009. Some interim proposals suggested by the Frequency Issues Group, Norske Skog and MEUG have been dismissed by the EC. Those interim proposals should be reconsidered.
▪ To what extent should more detailed examination of the frequency keeping market be treated as a high priority in the next stage of the Market Design Review? If so, what aspects and why?	Priority should depend on how the NPV of expected economic efficiency gains ranks against that of other work

Summary observations on demand side participation (p4-17)	MEUG comment
Looking at the investment horizon, it would appear that electricity intensity has been declining over the last ten years or so in which retail competition and an electricity market have been in place. However, it is not possible to judge whether there is a causal linkage, or simply a coincidence of timing	Agree difficult to assess cause and effect. New technology has probably and will probably be important. Most new technology is imported.
In terms of medium term demand response, there is evidence that large industrial users have responded to sustained movements in spot prices during extended periods of low inflows. The evidence for residential and commercial users is not clear. It would also appear that the demand response signals for such users are less pronounced than for large industrial customers	Medium term responsiveness can vary widely between industry sectors and within sectors, eg some businesses have must-run production lines. Other businesses may have an ability to curtail demand quickly but other factors may be more important, eg meeting an export order.
In relation to very short term (close to or in real time) demand response, it appears that large users are able to respond sometimes but not others. Residential load is also able to respond sometimes, primarily through controlled water heating load; and	See comment above
Key issues affecting the ability to respond include the accuracy of forward price estimates, the degree of forward notice, and the extent to which contractual relationships mute or remove price signals between the wholesale market and the end-user	And for investment decisions whether the economics of more energy efficient but often more expensive capital is favourable. Increasingly government intervention is also restricting or dictating only efficient (and more expensive) appliances are available to replace older household appliances.
▪ To what extent do you agree with these observations?	See comments above
▪ What other issues would you regard as important in assessing the demand side participation?	-
▪ To what extent do you consider that issues with demand side participation will be adequately addressed under existing Commission work programmes?	Not sufficiently familiar with this work programme to comment
▪ To what extent should more detailed examination of demand side participation be treated as a high priority in the next stage of the Market Design Review? If so, what aspects and why?	Priority should depend on how the NPV of expected economic efficiency gains ranks against that of other work

Appendix 2: Matrix of policy issues in the electricity sector and scope of EC Market Design review (highlighted in yellow)

	Generation and wholesale Competitive, \$2,000m pa ¹	System Operations Monopoly	Transmission Monopoly, \$600m pa ²	Distribution Monopolies, \$1,200m pa ³	Retail Competitive, \$400m pa ⁴	End consumers Total = \$4.3b pa ⁵
Overall policy	<ul style="list-style-type: none"> Market design including regulatory institutions⁶ Climate change policies GIC⁷ role & work streams Water prog. of action 					
Electricity Act	<ul style="list-style-type: none"> Role of EC⁸ DG regulations 	<ul style="list-style-type: none"> Role of SO⁹ 				<ul style="list-style-type: none"> Rural supply post 2103
EIRA ¹⁰				<ul style="list-style-type: none"> Risk of allowing ELB back into supply 		
EECA ¹¹	<ul style="list-style-type: none"> NZEECS policies 					
SOE Act	<ul style="list-style-type: none"> Role of SOE 		<ul style="list-style-type: none"> SOE or CROC options 		<ul style="list-style-type: none"> Role of SOE 	
RMA	<ul style="list-style-type: none"> Generic review of RMA 		<ul style="list-style-type: none"> Generic review of RMA NPS and NES 			
Commerce Act	<ul style="list-style-type: none"> Part 2 inquiry Generic review authorisation and clearance 		<ul style="list-style-type: none"> Possible settlement and ongoing Part 4A regime 	<ul style="list-style-type: none"> Part 4A from 1-Apr-09 Various settlements Generic review Part 4 	<ul style="list-style-type: none"> Part 2 inquiry Generic review authorisation and clearance 	
Fair Trading Act ¹²					<ul style="list-style-type: none"> Ongoing surveillance 	
Electricity Governance Regulations and Rules	<ul style="list-style-type: none"> HMDSG proposals WMAG proposals Castalia SOS¹³ proposals Post MSP update changes¹⁴ 	<ul style="list-style-type: none"> CQAG proposals Improving FK¹⁵ market EC wind investigations 	<ul style="list-style-type: none"> Review TPM¹⁶ Review BA and ICR¹⁷ Initial GUP precedents Transmission hedges¹⁸ 		<ul style="list-style-type: none"> Better information to allow informed choices 19% transmission rebates RMAG proposals 	<ul style="list-style-type: none"> Electricity efficiency levy¹⁹ Whirinaki levy²⁰

¹ Generation supply costs calculated as a residual of other annual costs

² Transpower have notified their customers that the revenue requirement for the year ended 31 March 2008 is \$598m. This is subject to any amendments following the Commerce Commission consideration of the settlement proposed by Transpower in lieu of being controlled.

³ Distribution charges net of transmission charges estimated by MEUG

⁴ Retail costs estimated as approximately 1.2 million consumers times retail costs to serve of \$170/consumer plus retail profit margin of \$188/consumer. These assumptions are from the EC Market Design Issues paper. These costs do not include meter related costs and therefore are probably an underestimate.

⁵ Annual costs all GST exclusive. Total cost per MED EDF for MYe05. Other costs based on mix of references.

⁶ Cabinet considered papers on market design late 2006 – these were not, in the view of MEUG, sufficiently comprehensive

⁷ Gas Industry Company (GIC) role refers to whether current governance model is optimal. Work streams refer to various activities of the GIC.

⁸ Role of the EC refers to both the broader governance per Graham Scott report and also how the status quo can be improved, eg improving role of working groups.

⁹ Role of System Operator (SO) includes consideration of options such as tendering SO service provider contract and possible greater separation of SO from Transmission Asset Owner

¹⁰ EIRA refers to Electricity Industry Reform Act

¹¹ EECA refers to Electricity Efficiency and Conservation Act

¹² Possibly this should include Consumer Guarantee Act

¹³ SOS refers to Security of Supply, ie predominately dry year security issues such as exiting 1 in 60 dry year policy

¹⁴ Post Market Systems Programme (MSP) update changes include possible change to 5 minute final pricing

¹⁵ FK refers to Frequency Keeping

¹⁶ Review of Transmission Pricing Methodology (TPM) to increase level of new investment paid by causers or beneficiaries rather than being socialized.

¹⁷ Review of Transmission Benchmark Agreement (BA) and Interconnection Rules (ICR) to provide better balance and commercial drivers on Transpower

¹⁸ Transmission hedges could include financial transmission rights (FTR). NZIER in their report for the EC, *Market Design Report – The Way Forward?* August 2005, noted (p46 conclusions), that a review of nodal and zonal pricing beforehand would be useful.

¹⁹ EC electricity efficiency levy budget for year ending June 2008 is \approx \$10m

²⁰ EC Whirinaki levy and some minor security of supply related costs is \approx \$30m