Commerce Commission Draft Determination

Electricity Governance Board Ltd ("The Applicant")

Mighty River Power Response *(DRAFT)*

22 May 2002

Executive Summary

In Mighty River Power's opinion the EGBL arrangements are preferable to the counter-factual of a Crown EGB. We attach some discussion on our reasoning but the key points are:

1. The history of the development of the electricity industry has lead to a large degree of allocative efficiency at the expense of dynamic efficiency (Page 2).

2. A Crown EGB will be under significant pressure to respond to short-term incentives and will err towards allocative efficiency at the expense of dynamic efficiency(Page 3).

3. An Industry EGB that balances the interests of asset owners (likely to focus on dynamic efficiency) with end use consumers (likely to focus on allocative efficiency) with no aggregate bias to either short-term or long-term incentives is likely to outperform a Crown EGB (Page 3).

4. The wholesale pricing mechanism is not a price fixing mechanism (Page 4).

5. The Guiding Principles are appropriate in the proposed arrangements (Page 4).

6. Under the status quo there have not been obvious anti-competitive obstruction to rule changes but pro-competitive rule changes have sometimes struggled to be enacted due to strong industry-wide resistance to change and the principle of anchoring bias (Page 5).

7. An Industry EGB, acting on behalf of members as well as end use consumers, is more likely to put dynamic commercial pressure on Transpower (Pages 6-7).

8. It is critical for long-term competition and dynamic efficiency that the cost of capital for private capital is at least as low as public capital. The Commerce Commission has, correctly we believe, assessed that private capital would be at a disadvantage under the Crown EGB (Page 7).

9. An Industry EGB is more likely to be aware of the inherent conflict of interest between Transpower as System Operator and as an Asset Owner (Page 7).

10. There are changes that could be made to the proposed arrangements that preserve the essential self-regulatory nature of the arrangements but address the potential barriers to pro-competitive rule changes (Page 8).

11. A ten year horizon analysis is too short for assessing the dynamic benefits and detriments in utility infrastructure (Page 9).

Background

The Commerce Commission has been asked by the Electricity Governance Board Limited (EGBL) to authorise Arrangements and the Rulebook as being an overall net benefit to New Zealand, notwithstanding provisions that may conflict with the Commerce Act 1986. The Rulebook is a direct result of government policy (the Government Policy Statement "GPS"), which requires that the proposed Rulebook must be governed within one universal framework structure. The GPS acknowledges such an arrangement may be self-regulated but may also be regulated by the Minister of Energy if he/she judges that the Arrangements and the Rulebook do not adequately meet the terms of the GPS.

The electricity industry generally, but not unanimously, agrees that the Arrangements and Rulebook meet the requirements of the GPS, and are still required to meet the requirements of the Commerce Act.

To grant the authorisation, the Commerce Commission must be satisfied that the arrangements either facilitate competition overall or, where they do not facilitate competition, that they deliver significant net overall benefits. Such net benefits are likely to be measured against the typical economic tests of productive, allocative and dynamic efficiency.

The Commerce Commission is required to define the counter-factual to the proposal and to measure the overall net benefits against that counter-factual. In this case, the counter-factual is not entirely clear, especially over time, but is generally agreed, to be the proposed Rulebook with a Minister of Energy appointed governance board supported by legislation rather than a set of multi-party contracts.

In its Draft Determination the Commerce Commission has concluded that the proposed Arrangements and Rulebook do not necessarily facilitate competition and do not ensure the necessary level of net public benefits and its draft decision is not to authorise the proposed Arrangements and Rulebook.

Mighty River Power's Position on the Public Good

The deregulation of electricity markets has been a contentious issue worldwide. Electricity is inherently complicated to reconcile from an allocative and dynamic efficiency point of view. Allocative and dynamic efficiency in all infrastructure (including electricity) are not only separated by the inherent tensions between them, but also by the very large fixed costs and very long asset life of the assets required to produce the product. A short-term view tends to strongly favour allocative efficiency and a longer-term view tends to support dynamic efficiency.

The history of the electricity industry, with its highly valuable resources of hydro-electricity and the Maui gas field, has meant low electricity prices by world standards. It was always going to be a difficult political proposition to move to a deregulated electricity market at the same time that new investment in non-hydro resources is required and Maui gas is running out. In theory, however, this is the best time to deregulate. The challenge of deregulating in a period where there was an increased reliance on more expensive new resources has meant the risk that increases in long-run prices would be seen as a failure of the market.

Mighty River Power suggests that dynamic efficiency is the most important issue confronting the electricity industry in New Zealand. Over the long-term New Zealand will be more competitive in both cost and service if there is an electricity supply investment framework that promotes innovation. Mighty River Power considers that the counter-factual to the proposed Arrangements and Rulebook, (an electricity governance body under the direct influence of the Minister of Energy) will, over time be under strong pressure to repeat the unbalanced preference for allocative efficiency at the expense of dynamic efficiency experienced in the decades prior to the 1980's reforms.

Mighty River Power suggests that a set of arrangements that balance the interests of the asset owners (likely to have a dynamic bias) with end use consumers (likely to have an allocative bias) under an independent body with appropriate checks and balances, and no particular short or long-term incentives, is likely to facilitate a significantly better outcome overall than the counter-factual.

Mighty River Power also considers that, with some modification of the checks and balances to achieve the best balance of the varying interests in operation within the process, that the Arrangements and Rulebook as proposed can meet the public good test. Public opinion is always likely to be biased against dynamic efficiency. Care needs to be taken when modifying the checks and balances, however, as undue influence by a single class of asset owner or consumer or consumer group on electricity governance may be to the detriment of both dynamic and allocative efficiency. Not only does the tension between asset owners and end use consumers need to be carefully balanced but so too does the balance between classes of asset owners and between classes of consumers.

Practical Concerns

Mighty River Power agrees with the Commerce Commission that there are some remaining issues with the Arrangement and Rulebook as currently proposed. In setting out relevant concerns below Mighty River Power will address those questions posed by the Commission in its draft determination that Mighty River Power considers are both significant and relevant.

Questions from the Draft Determination

> 3. Does the wholesale pricing mechanism in the proposed arrangements breach s 30?

Mighty River Power does not consider that the wholesale pricing mechanism proposed in the Arrangements breaches either the literal provisions or the philosophic underpinning of Section 30. Some form of wholesale pricing mechanism is necessary in any physical electricity market. Even a bilateral contract market requires a balancing mechanism, such as a wholesale pricing mechanism. Because the physics of electricity requires purchase and sale volumes to be matched in real-time, the efficient clearing of price in real-time is essential to achieve appropriate economic outcomes. The pricing mechanism in the proposed arrangements efficiently matches bids and offers in real-time while preserving physical boundaries that may not be exceeded. As there are no controls on bids or offers (in the pricing mechanism) there is no attempt to control or maintain price. Technically, it may be able to be described as a mechanism to fix price but this interpretation places too much weight on appearance rather than outcome.

> 8. Would a change to the proposed Guiding Principles so that they were more closely aligned with the principles and objectives in the GPS be likely to enhance competition or otherwise increase consumer welfare?

Mighty River Power considers that aligning the Guiding Principles more closely to the GPS is likely to reduce competition and is unlikely to lead to good policy outcomes.

The GPS is, as its name indicates, a statement of Government Policy and will contain statements of desired political outcomes that may not always be consistent with an efficient market outcome for delivered electrical energy. Policy may be at odds with economic efficiency in electricity markets in order to achieve external goals that have more to do with the political process than economic efficiency or consumer welfare. For example, a government bias towards renewable energy should be explicit outside the governance framework not within it, because such bias inside the Arrangements in effect supports an anti-competitive outcome (i.e. the preference for renewable versus other forms of energy is imposed rather than the result of competitive process). Mighty River Power considers that a desirable outcome is to ensure that the Guiding Principles

do not create barriers to implementation of Government Policy but that some of the externalities in the GPS are best addressed outside the framework of electricity governance.

9. Would the proposed voting arrangements be likely to lessen the likelihood of the implementation of desirable pro-competitive rule changes?
10. Under what circumstances would affected parties be likely to have sufficient commonality of interest to vote collectively against recommended pro-competitive rule changes?
11. What examples are there in existing NZEM, MACQS and MARIA governance arrangements of pro-competitive rule changes being voted down?

Generally, Mighty River Power believes that the same pressures that the Commerce Commission believe would prevent anti-competitive rule changes are also relevant for not adopting pro-competitive rule changes. In both cases it may be appropriate for a "double check" where the EGBL had a strongly different view to the voters.

Mighty River Power does not believe that increasing the voting entitlements of end-use consumers is an appropriate solution as this would be likely to compromise dynamic efficiency (most end-use consumers, especially commercial and industrial, will have a very short-term view), rather than increasing the extent of competition. Mighty River Power considers that a "double check" and "circuit breaker" mechanism that is not yet available to the EGBL could be more appropriate, and would improve the overall operation of the Arrangements.

The double check mechanisim provides an option for the EGBL to resend a motion back to the vote and signals clearly that it believes that a rule change is favourable. If this process fails, the "circuit breaker" could be an economic test of fact before the judicial panel. If, based on the evidence presented, the judicial panel considers that a rule change enhances competition and increases the overall net public good the rule would be passed, and conversely would not be passed if public good was not shown.

Mighty River Power does not believe that under the status quo there have been any examples of pro-competitive rule changes being opposed for the purpose of suppressing competition. Of much more significance to the rule change process is "institutional inertia" and anchoring bias, which usually results in barriers to change unless benefits are very clear. Very clear benefits establishes an extremely high hurdle for any proposed rule change, in an industry which is inherently complicated and where benefits and costs are not always clear. Mighty River Power believes that the double check and circuit breaker addition would have significant influence on overcoming the potential for institutional inertia and anchoring bias.

Specific examples exist of pro-competitive rule changes that have not been implemented. However, because, from time to time, some classes of asset owner and some classes of consumers have believed that what they thought were pro-competitive rule changes have been voted down does not necessarily mean that this represents a blocking or preventing position against the principles of competition. Mighty River Power considers that a more constructive approach is to ensure that the rule change process is robust than to determine that, because there has been some disquiet, that there are issues around competitivity. Each of the cases where proposed rule changes have been voted down and where we believed that there was overall benefit in the proposal, has been in complex situations where the benefits and costs have not been easy to quantify. The frustrating concern has been a general institutional resistance to change rather than any deliberate anti-competitive element.

20. What are the likely differences in ability between an Industry EGB and a Crown EGB to assess pricing methodologies, and what would be the benefits and detriments associated with any differences?

Neither an Industry nor a Crown EGB is likely to have a strong ability to assess pricing methodologies. Any process that makes Transpower more answerable to its peers must be robust and transparent. Mighty River Power suggests that an Industry EGB has some advantage relative to a Crown EGB as it represents its industry members as well as consumers, and is in a position to credibly assess pricing methodology proposals from Transpower and their likely impact on its constituents.

It is likely that, of all the parties able to place Transpower proposals under the closest scrutiny, the Industry EGB is the best equipped to do so. A Crown EGB may err on the side of allocative efficiency having regard to its origin as an instrument of government appointment.

There is also an inherent conflict of interest between the Crown EGB under direct ministerial influence and government ownership of a natural monopoly (Transpower). The Industry EGB provides for greater separation of this conflict of interest.

21. If there are any existing pricing inefficiencies relating to the HVDC link, would they be likely to be addressed as effectively by an Industry EGB as by a Crown EGB?

Mighty River Power considers that pricing inefficiencies exist not only in relation to the HVDC but are also significant in the HVAC network.

Loss and constraint surpluses are generally around 5% of market turnover. This is a high level for a well-developed network. And the level of constraint activity appears to be increasing with significant constraints consequences over the last two years. The levels of loss and constraint surpluses have been offset by generally higher wholesale prices leading to higher market turnover. As there is also some correlation between higher wholesale prices and level of constraint

activity the effect of the transmission network capacity and configuration on the competitive wholesale market is very significant.

In the same context the only significant change in transmission capacity since the inception of NZEM occurred last year when Transpower provided a 30% increase in the Tokaanu-Whakamaru circuits (and some associated other circuits). The cost of this investment was so low that it would have been economic six years ago if Transpower had been subjected to true dynamic signals. In fact over this time the capacity of the transmission network has been reduced as the System Operator has become more conservative with the operation of transmission assets. This is one of the key concerns with the conflict of interest between Transpower as System Operator and as an asset owner.

Nowhere else is the importance of dynamic efficiency as paramount as in the transmission network. Transpower has a significant vested interest in retaining the status quo and concentrates much effort on lobbying to reduce its own business risk. An Industry EGB that represents not only end-use consumers but also all classes of asset owner will be able to apply much more commercial pressure on state-owned Transpower than a Crown EGB and in doing so, achieve better long-term outcomes.

33. Would the cost of capital be different in the proposed arrangements relative to the counterfactual?
34. Would regulatory risk affect only the cost of capital for private sector interests?

Cost of capital generally reflects the risks that are priced by equity and debt markets. Even the perception of risk has some effect although generally, perceived and actual risks converge over time. There is ample evidence in worldwide equity and debt markets that regulatory intervention does affect the cost of capital. It is the form of regulation that has effect on the cost of capital, not regulation per se. A fundamental issue with the New Zealand counterfactual is that any likely regulation will not be independent of direct Government influence and is, therefore, likely to be pressured to react to short-term commercial problems. Equity and debt markets will need comfort that investment owners with long investment horizons in the New Zealand electricity market are being fairly represented in industry governance for the industry in New Zealand to have access to capital at low cost.

Mighty River Power agrees with the Commission's determination that the investments of SOEs will be perceived to be at lower risk than private investments and that the predominant cost effect of a Crown EGB will be on private capital. However, the Commission may not have recognised the largest risk. Given that SOEs and private companies will have the same access to technology and no other advantages of import or export (including capital), a higher cost of capital is a significant competitive disadvantage with potential impact in the distribution of private and public capital in the electricity generation and retail sector.While currently distributors don't necessarily have commercial pressures that would change their attitudes they would generally be expected to have a balanced philosophic tendency for net public good

investments. Whether or not that tendency is robust without commercial pressure is questionable, but it should not result in bias one way or the other. There is some uncertainty, however. As outcomes evolve distributors may have increased incentive to reduce risk with no effect on return. There may also evolve abilities to cross-subsidise ventures with the monopoly business. We suggest that representing the industry will ensure that an Industry EGB is more aware of these issues.

Of more significant concern is the conflict of interest of Transpower as both System Operator and an asset owner. The role of the System Operator should be naturally aligned to the role of a governance board in the absence of a conflict of interest. However, as Transpower has a large commercial interest in assets, it cannot perform its role as System Operator without some measure of bias towards the ownership function. Traditionally this has led Transpower to focus intensely on security but regard any change on capacity, even where it would improve competition or the net public good, as picking winners and losers and therefore outside its mandate. The reality for Transpower has been that investment generally meant an increase in liability without guaranteed improved revenue through the ODV pricing methodology.

Mighty River Power believes that a Crown EGB is not sufficiently different from the status quo to ensure a changed outcome. By contrast, an Industry EGB representing both consumers and all asset owners will be more mindful of the conflict of interest. Mighty River Power believes that Transpower will always seek to escape assessment by its peers where it is able to do so, as shown by its past behaviours.

The conflict of interest between the Crown EGB and government owned Transpower is also of concern as it is in pricing efficiency.

47. The Commerce Commission's preliminary assessment is that the proposed arrangements are likely to allow generators to increase electricity prices above competitive levels. This would result from both the potential for strike-down of pro-competitive rules and under-investment in transmission. Apart from deadweight losses, are there other public detriments that would arise from an increase in electricity prices?

Mighty River Power believes that consistent strike-down of pro-competitive rule changes for anti-competitive purposes are unlikely. However, we agree that general resistance to change in the industry may sometimes lead to less competitive outcomes. There are remedies suitable for inclusion in the Rulebook that would greatly reduce the incidence of pro-competitive rule changes failing to overcome "institutional inertia". Suitable remedies include some form of double check followed by a circuit breaker process. In addition increased transparency would give pro-competitive rule changes the same overall protection as anti-competitive rule changes.

The under-investment issue may be overstated and, is likely to be worse under a Crown EGB, which, prone to greater short-term pressure and lobbying, is likely to be the alternative that leads to under-investment.

Prices decreasing below competitive levels on a sustained basis is also detrimental. While unjustifiably high prices are to the detriment of utilisation of sunk costs, the short-term competitiveness of producers and the short-term comfort of consumers, unsustainably low prices are to the detriment of energy efficiency, innovation, demand side participation and the long-term efficiency of industry, production and consumption. From time to time prices will increase above long run competitive levels and at other times decrease below these levels. The important thing is that they trend over time at the appropriate level (which may not be as low or as high as they have been historically).

52. Is it appropriate to use a ten year time horizon for the purpose of calculating benefits and detriments?

In deciding whether or not a ten year horizon is long enough there are two issues to address:

The ability to predict outcomes beyond that ten-year horizon?
What is likely to be missed in only using a ten-year horizon?

Mighty River Power considers that, given uncertainties around technology, Kyoto and other general market uncertainties, that the Commission would find it difficult to predict even reasonably useful outcomes beyond a ten year horizon. From this perspective, a ten year horizon is sufficiently long to be appropriate.

Electricity supply is capital intensive and has a long asset life. To capture the entire life cycle of a new entrant (a benchmark for dynamic efficiency) would require a 20 year view from the time of that entry. In addition, while it is customary to assume that discounting makes considerations beyond a ten year horizon insignificant, the numbers involved in utility investment are so large that the terminal values generated after 20 years of discounting are still very significant. Most investments in electricity will use discounted cash flows over 10 to 20 years and may still need some assessment of terminal value to avoid costly errors. Such analysis would also be subjected to significant sensitivity analysis to recognise the risks of uncertainty after the first 5 year period.

In summary, it is probably not appropriate to claim the ability to quantify benefits and detriments after ten years: but ignoring the value implications beyond ten years would also not be appropriate. Mighty River Power suggests that the Commission will overlook some important benefits and detriments if it makes decisions on only a ten year analysis. We suggest that the Commission considers, at least in concept, the range of possible outcomes well beyond a ten-year horizon.