



COMMERCE COMMISSION

Decision No. 473

Determination pursuant to the Commerce Act 1986 in the matter of an application for authorisation of restrictive trade practices made by the:

ELECTRICITY GOVERNANCE BOARD LIMITED

The Commission:

M J Belgrave, Chair
P R Rebstock
D R Bates
D F Curtin
P J M Taylor

Summary of Application:

The Electricity Governance Board Limited applied for authorisation to enter into an arrangement that gives effect to various provisions of a Rulebook which provides a basis for trading and delivery of electricity.

Determination:

Pursuant to sections 58 and 61(1)(a) of the Commerce Act 1986, the Commerce Commission determines to authorise the Electricity Governance Board Limited's application subject to specified conditions being met.

This authorisation expires four years from the date the Rulebook comes into effect, or on 31 March 2007, which ever is the earlier.

Date of Determination:

30 September 2002

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THE APPLICATION

- 1 On 7 December 2001, the Commerce Commission (“the Commission”) received an application (“the Application”) from the Electricity Governance Board Limited (“EGBL” or “the Applicant”) for authorisation in terms of ss 58(1), 58(2), 58(5) and 58(6) of the Commerce Act 1986 (“the Act”) to enter into and give effect to an arrangement to which ss 27 and 29 of the Act may apply, namely an electricity market arrangement that proposes to restructure and rationalise the basis under which electricity is traded and delivered. This would be achieved by combining various existing market arrangements, integrating these into a single Rulebook (“the Rulebook”) and implementing various supporting agreements (collectively referred to as the “Arrangement”). The Arrangement represents the industry response to Government policy that the industry develop a rationalised and improved basis for the trading and delivery of electricity.
- 2 On 5 February 2002, in response to concerns raised by the Commission and interested parties about the scope of the Application, the Applicant amended its Application (“the amended Application”). The amended Application sought authorisation:
 - (a) to enter into the Arrangement pursuant to ss 58(1) and 58(5); and
 - (b) to give effect to specified provisions including ancillary provisions which indirectly give effect to the specified provisions pursuant to ss 58(2) and 58(6).
- 3 Formulation of the Arrangement and the scope of the authorisation sought is discussed below.

COMMISSION PROCEDURES

- 4 The Application was registered by the Commission on 7 December 2001. On 11 December 2001, notice of the Application, in accordance with s 60(2)(c) of the Act, was given to 56 parties who were considered likely to have an interest in it. On 5 February 2002, the Commission received the amended Application, and immediately provided a copy to interested parties.
- 5 On 26 April 2002, the Commission issued its Draft Determination (“the Draft Determination”). This followed Commission staff’s interviews with a number of industry participants, and consideration of all of the written submissions made to the Commission. Twenty-three parties made written submissions to the Commission on the Draft Determination.
- 6 The Commission held a Public Conference (“the Conference”) on the amended Application on 12, 13, 14, 19, 20, 25, 26, 27 and 28 June 2002. Fourteen parties made oral submissions at the Conference, following which the Applicant gave its reply. A list of interested parties who made submissions at the Conference is attached as Appendix 1. The Commission also received a number of supplementary written submissions during and after the Conference.

- 7 On 29 August 2002, the Commission sought submissions from interested parties on a number of conditions it was considering adopting as part of any authorisation. Eighteen written submissions were received.

SCOPE OF THE APPLICATION

Primary, Secondary and Ancillary Provisions

- 8 The amended Application sought authorisation to enter into the Arrangement and to give effect to specified provisions, namely: Comprehensive Coverage Provisions, Uniform Standard Provisions, Performance Assurances Provisions, Transmission Service Definition and Transmission Investment Provisions, Cost Allocation Provisions and Information Disclosure Provisions to the extent that they breach or may breach Part II of the Act (“the Provisions”).
- 9 The amended Application separated the Provisions into “primary provisions” and “secondary provisions”, and stated:
- The Applicant also requests that the Authorisation cover, in relation to each set of provisions, any “ancillary provisions” which indirectly give effect to the identified provisions. The Rulebook is integrated and giving effect to one aspect of the rules may arguably entail giving effect to the provisions for which authorisation is sought, although in an incidental manner.
- 10 The Applicant did not specifically identify those ancillary provisions.
- 11 The Commission is of the view that in the interests of process and of enforcement, where authorisation is sought for giving effect to a Provision it must be specifically defined before it can be considered for authorisation.
- 12 The Commission is not in a position, on the basis of the information available to it, to determine which “ancillary” rules in the Rulebook might “indirectly” give effect to the Provisions. The interested parties have not been able to comment on whether any of the ancillary provisions may have implications for competition beyond any which might arise from giving effect to the primary and secondary provisions because those ancillary provisions have not been specified.
- 13 If ancillary provisions in the Rulebook have no impact on competition other than the indirect impact of giving effect to the Provisions that have been authorised, they are unlikely in themselves to be in breach of the Act. It is doubtful that they would have, or be deemed to have, the requisite anti-competitive purpose or likely effect. On the other hand, if they have anti-competitive effects which are not currently apparent to the Commission, any authorisation of such ancillary provisions may provide those parties giving effect to those ancillary provisions with a protection in circumstances where the Commission has not considered the competitive effect of those ancillary provisions.
- 14 For these reasons the Commission has not considered for authorisation the giving effect to the “ancillary provisions”.

Voting Arrangements

- 15 In its submission on the Draft Determination, the Applicant stated:

If the Commission authorises the Arrangement, an opponent of the Rulebook could challenge the proposed voting arrangements under section 27 of the Act based on the Commission's statements in the Draft Determination, as authorisation of these was not expressly sought in the application. The extent of the risk will be affected by the Commission's final view of the voting arrangements and what, if any, conditions are imposed on the Authorisation. However, to protect the industry against this risk, the Applicant seeks to extend its application to cover giving effect to the voting arrangements.¹

- 16 At the Conference, Mr Palmer for the Applicant stated that the amendment to the Application to incorporate voting arrangements was of a minor nature. In its reply to Conference submissions the Applicant stated:

The Applicant does not seek authorisation of any future rule change or other vote outcomes. Rather the Applicant seeks to have the voting mechanism authorised since, at least on the basis of the Draft Determination, the mechanism could be argued (contrary to the Applicant's submission that there is no detriment associated with the proposed voting arrangements) to lessen competition relative to the counterfactual.²

- 17 The Commission is of the view that it is not appropriate to amend the Application to incorporate the voting arrangements. Clearly the arrangements are part of the factual background of the Application, but to incorporate them within the Application at a late stage raises important process issues. In any event, from the information provided to the Commission it appears that the voting provisions fall within the category defined by the Applicant as ancillary provisions. In themselves the provisions are not necessarily anti-competitive and would not appear to be at risk under the Act, irrespective of whether they are optimal from a governance point of view. However, if parties vote to introduce anti-competitive provisions that are not authorised by the Commission, those who give effect to the anti-competitive provisions would be at risk of breaching Part II of the Act.

Authorisation of the Rulebook as a whole

- 18 In its submission on the Draft Determination, Transpower (NZ) Limited ("Transpower") suggested that it was difficult to understand on what grounds the Commission could authorise the specific provisions identified by the Applicant while not addressing the need for authorisation of other provisions that clearly raise competition concerns. It considered that the Commission should either consider whether there are specific provisions not in the Application which need to be authorised, or decide whether or not to authorise the whole Rulebook.
- 19 The Commission considers that the primary responsibility for determining the scope of the Application lies with the Applicant. While, as in this case, the Commission may seek clarification of the scope, or exclude aspects which are not clearly defined, it would only be in exceptional circumstances that it would seek to incorporate

¹ Electricity Governance Board Limited, "Applicant's submission on Commerce Commission's Draft Determination", 22 May 2002.

² EGBL Conference, Transcript of Applicant's Right of Reply, 28 June 2002, para 14.10.

aspects for which the Applicant has not sought authorisation. These circumstances do not exist in this instance.

THE APPLICANT

Electricity Governance Board Limited

20 The EGBL is the Applicant, an intended party to the Rulebook, and to many of the contracts that give effect to the Arrangement, including service provider contracts. EGBL is the governing body responsible for administering the Rulebook.

INDUSTRY BACKGROUND

Generation

- 21 Prior to 1996, the Electricity Corporation of New Zealand (“ECNZ”) was New Zealand’s dominant electricity generator, owning about 7,700 megawatts of generation capacity which was around 96% of the capacity available for public supply.
- 22 In July 1995, the Government announced that in the lead up to the opening of a wholesale electricity market it would:
- split ECNZ into two competing state-owned enterprises - ECNZ and Contact Energy Limited (“Contact”);
 - sell six small hydro plants owned by ECNZ; and
 - impose special constraints on ECNZ until its market share fell to 45%, including a cap on the building of new capacity, ring-fencing new capacity, and a high level of firm capacity to be offered by tender for long-term contracts.
- 23 In February 1996, Contact commenced operations as a state-owned enterprise generator, in competition with the ECNZ, following the establishment of the wholesale electricity market. Contact took over several power stations formerly belonging to the ECNZ representing 22% of total energy production, as well as ECNZ’s Maui gas contracts.
- 24 In March 1999, the Government sold 40% of Contact. The remaining 60% was offered to the public in May 1999. During this time, ECNZ was split into three competing state-owned generators - Genesis Power Limited (“Genesis”), Meridian Energy Limited (“Meridian”) and Mighty River Power Limited (“Mighty River”). Each of those entities commenced trading on 1 April 1999.³
- 25 Meridian, Mighty River, Genesis (all state-owned) and Contact are currently the main generators of electricity in New Zealand. Other generators include Natural

³ The Marketplace Company Limited, “NZEM Market Report”, March 2001.

Gas Corporation, TrustPower Limited (“TrustPower”), Tuaropaki Power Company Limited and Todd Energy Limited (“Todd”). The three state-owned enterprises and Contact make up approximately 85% of New Zealand’s electricity generation.

- 26 More than 60% of New Zealand’s electricity generation capacity is hydro-based, using river flow systems and water stored in natural or man-made lakes. Hydro generation is concentrated in the lower South Island catchment regions of the Waitaki and Clutha rivers and, in the North Island catchments of Waikato/Taupo, Tongariro and Waikaremoana.
- 27 Non-hydro generation contributes nearly 40% of the total capacity. Most is thermal (powered by gas or coal), with the remainder in geothermal and cogeneration plant, which generate electricity as a by-product of industrial processes, such as dairy production. Approximately 1% of New Zealand’s generation capacity is wind based.⁴

Transmission

- 28 Transpower is the owner and operator of the national electricity transmission grid (“the grid”). It maintains security and quality of electricity supply over the grid. Transpower is also the scheduler, providing detailed day-ahead plans of how generators are expected to generate to meet demand. As dispatcher, Transpower is also responsible for the real-time co-ordination of electricity transmission and ensures that real-time demand and generation are matched. In providing these services, Transpower must also take into account generators and retailers that are not part of the New Zealand Electricity Market (“NZEM”), but which still need to transport electricity across the grid.
- 29 The grid is a network comprising 13 thousand kilometres of high-voltage power lines, and over 180 substations and switchyards. The North Island and South Island parts of the grid are connected by the 1240 megawatt capacity High Voltage Direct Current link (“the HVDC link”).
- 30 Generators around New Zealand inject electricity into the grid at their respective connection points, or nodes. Electricity is conveyed along the grid to most consumers via local distribution networks. These distribution networks operate at lower voltages than the grid. Electricity is taken from the low voltage side of a Transpower substation and distributed at various voltages to consumers. During the distribution process, the voltage may be further reduced at local substations or on consumer premises. Some large-volume consumers are directly connected to the grid.
- 31 Transpower’s grid network interconnects all generation stations (other than those embedded in networks) and the substations which supply electricity to major consumers. The grid comprises a network of 220, 110, 66 and 50 kilovolt transmission lines and substations. Substations contain the switches and isolators which are used to control the operation of transmission lines, metering and protection equipment and transformers to reduce the very high voltages to levels more appropriate for distribution around industrial plants or distribution networks.

⁴ Above n 3, 21.

Distribution

- 32 Currently, there are 29 distribution companies in New Zealand who transport electricity from the national grid to consumers via their low-voltage local networks. The largest distribution company is United Networks Limited (“United”) which owns networks in Auckland, Bay of Plenty and Wellington. Some other large distribution companies include Vector Limited (“Vector”) and WEL Networks Limited. Vector’s proposed acquisition of United is currently in progress. Distribution companies throughout New Zealand are variously owned: publicly, by trusts, share-holder co-operatives and by local bodies.
- 33 The distribution networks operate at lower voltages than Transpower’s grid, and in smaller geographical areas. Electricity is taken from the low voltage side of a Transpower substation and distributed at various voltages to consumers. During the distribution process, the voltage may be further reduced in zone substations or in transformers situated on consumers’ industrial premises. Most consumers receive electricity at either 11 kilovolts or 400/230 volts.
- 34 The Electricity Industry Reform Act 1998 (“the EIRA”) was enacted on 8 July 1998. The EIRA required separation of lines and energy businesses by 1 April 1999, and full ownership separation no later than 31 December 2003. Commercial drivers meant that ownership separation of line and supply businesses was completed by 1 April 1999.

Retail

- 35 Retailers purchase electricity from generators or in the wholesale market and resell it to consumers. Electricity is carried by a distribution company, with whom the retailer will usually contract for lines services.
- 36 A number of mergers and acquisitions have taken place in this part of the industry, and the number of retailers has reduced significantly since the EIRA required the ownership separation of the distribution and retail functions. Significant vertical integration has occurred between generators and retailers. Only a small percentage of electricity is retailed by stand alone retailers.

CURRENT MARKET ARRANGEMENTS

- 37 In 1993, the Electricity Market Company Limited (now The Marketplace Company Limited, “M-co”) was set up by ECNZ and the Electricity Supply Association, to develop an electricity market framework for wholesale trading, including:
- commencement of an on-line secondary market in trading in ECNZ’s hedge contracts;
 - establishment of a market surveillance committee to admit new entrants and supervise conduct; and
 - administration of the Metering and Reconciliation Information Agreement (“MARIA”) to record and reconcile flows to assist contracting parties in the wholesale and retail markets.

- 38 A wholesale electricity market was necessary because there were now two generators competing to supply electricity. In October 1996, the NZEM commenced operations, with M-co acting as market administrator, clearing manager and pricing manager. The NZEM's operation is described below. Transpower acted as grid operator, dispatcher, scheduler, and reconciliation manager.
- 39 In 1997, Transpower established the Interim Grid Security Committee to review the setting and maintenance of grid security standards. This resulted in the establishment of the Grid Security Committee ("GSC") in November 1999, following authorisation by the Commission of the Multilateral Agreement on Common Quality Standards ("MACQS").⁵ MACQS established a process to agree rules to allow standards to be set for common quality, including security, a contractual structure for implementing agreed common quality standards, and a robust monitoring, compliance and dispute resolution process. However, MACQS never became operational, having been overtaken in effect by the industry initiative that has given rise to the Application by EGBL. Common quality standards are currently determined by Transpower.
- 40 Currently, the demand and supply of electricity at the wholesale level is governed principally by:
- the NZEM, which is the multilateral contract through which between 70% and 80% of electricity is bought and sold; and
 - MARIA, which, amongst other things, provides rules for the creation of bilateral contracts for the sale and purchase of electricity.

NZEM

- 41 The NZEM is the multilateral trading arrangement where most wholesale electricity sales are transacted. The NZEM is intended as a mechanism to match the supply and demand for electricity and to establish or "discover" the wholesale price of electricity for each trading period.
- 42 The NZEM is a voluntary market that operates within a code of practice known as the rules of NZEM ("NZEM Rules"). The NZEM Rules were developed through a process of consultation and voting by industry participants, and cover every aspect of trading, from entry criteria to physical electricity dispatch. They also include procedures for financial settlement of transactions between market players buying and selling electricity on the spot market, and procedures for receiving bids and offers.
- 43 Buying and selling electricity at a wholesale level is accomplished using a "pool", where electricity generators offer electricity to the marketplace. Purchasers then buy electricity from the "pool" to supply their customers. Under the NZEM a price is established for each half-hour trading period at the 244 nodes around New Zealand. The price at each of these nodes incorporates the cost variation of electricity transmission owing to location, system security, and constraints. The underlying

⁵ Commerce Commission, *Decision 369*, 13 August 1999.

price is set by the intersection of the actual demand and supply curves. Electricity is priced at market clearing levels and the price is allowed to rise and fall in response to supply and demand.

- 44 Market participants may manage their risk by entering into financial risk management contracts, which are usually contracts for differences. Such financial arrangements are not subject to any rules under NZEM or MARIA.

MARIA

- 45 MARIA was established in 1994 to reconcile the quantities of electricity traded bilaterally through the national grid. MARIA was initially established as an arrangement to allow competition for commercial and industrial consumers. Its focus was on specifying metering and reconciliation standards to facilitate choice for those consumers. However, MARIA's scope has since broadened. MARIA now also has the aim to ensure all electricity consumers, including domestic households, are able to change their electricity retailer with ease. The prime focus of MARIA is on creating an environment that enables competition amongst retailers to supply electricity consumers through effective, fair and efficient electricity trading arrangements. Additionally, MARIA matches the quantities of electricity supplied to consumers by retailers with the contracts for supply which the same retailers have with generators.
- 46 MARIA allows linkage of prices paid by consumers and prices paid by retailers - this system is called "profiling". Essentially profiling estimates a consumer's half-hourly electricity consumption by looking at their average consumption at different times (their "profile"). Profiling establishes an agreed half-hourly consumption pattern for each consumer, thereby enabling a retailer to sell electricity to any consumer anywhere in the country.
- 47 A national database is at the centre of the system that profiles all of the approximately 1.5 million electricity consumers in New Zealand. It identifies every electrical installation (or premise) by a unique number, known as an Installation Control Point ("ICP"). ICPs are printed on the consumer's monthly power bill and are the reference for switching electricity retailers.
- 48 M-co is MARIA's administration manager and has responsibility for matching the quantities of electricity bought with the quantities of electricity sold. MARIA's self-regulatory structure (with mechanisms for selecting a governance board, making rule changes, resolving disputes and enforcing rules) is governed by a set of rules ("the MARIA Rules"), and it is overseen by the MARIA Governance Board ("the MGB"). In the year to 31 March 2001 approximately 30% of the volume of electricity traded across the grid was traded through MARIA.⁶ Its participants include consumers who are directly connected to the grid, generators, distribution companies, retailers, service providers, the MGB, Transpower, the MARIA Conduct Committee, and any other person bound by the MARIA Rules.

⁶ The Marketplace Company Limited, "MARIA Annual Review", March 2001.

- 49 The MARIA Rules provide the standards for meters that measure electricity use, and determine the metering standards a new retailer must meet before it can take over supply to an individual consumer. The MARIA Rules require all parties to provide certain data so that quantities of electricity bought can be matched with the quantities of electricity sold for each contract. The MARIA Rules also determine any mismatch not covered by contracts and the basis for settlement of any mismatches with NZEM, including those due to transmission losses and constraints.

MACQS

- 50 In addition to the NZEM and MARIA codes, the industry developed MACQS, which sets out a process for agreeing rules to allow standards to be set for common quality of electricity transported across the national grid. Following the authorisation of MACQS and its associated contractual arrangements by the Commission in Decision 369, the governance arrangement for MACQS were established, but the operational arrangements were not. Minor modifications to MACQS have been made by the GSC (which were the subject of correspondence with the Commission in June 2000).
- 51 Rules have been developed pursuant to MACQS to move the electricity industry to a self-regulating structure that determines common quality (including security) standards for electricity supply. MACQS aims to transfer the responsibility for supply quality from Transpower to the industry. The common quality rules under which the industry currently operates are contained in Transpower's grid operating security policy.
- 52 MACQS establishes the processes for parties to reach agreement and secure the provision of common quality of electricity. Common quality primarily relates to the voltage and frequency levels on the grid. The rules for common quality were established by the industry through participation in working groups convened by the GSC. These rules took over three years to develop. MACQS has not yet been implemented, but its rules have been incorporated into the proposed Rulebook.

THE ARRANGEMENT

Background

- 53 The genesis of the Arrangement lies in the Government's desire to see improvements to market governance and design, and to rationalise the three existing codes, NZEM, MARIA and MACQS, together with the electricity industry's own desire to improve governance and market design.

Ministerial Inquiry into the electricity industry

- 54 On 3 February 2000, the Minister of Energy ("the Minister") announced the terms of reference for a Ministerial Inquiry ("the Inquiry") into the electricity industry.⁷ The purpose of the Inquiry was to explore whether the current regulatory arrangement for the transmission, distribution, wholesale and retail sectors of the industry met the

⁷ Ministerial Inquiry into the Electricity Industry, "Terms of Reference", 3 February 2000.

Government's objective of ensuring that "electricity is delivered in an efficient, reliable and environmentally sustainable manner to all classes of consumer".

55 The Inquiry reported to the Minister on 12 June 2000⁸ and recommended, amongst other things:

- a strengthening of the physical wholesale market's governance structure and the introduction of compulsory membership;
- a clearer division of the financial and physical electricity markets;
- Transpower's principal objectives in the transmission of electricity should be to achieve, in partnership with the Government, a reasonable and transparent balance between a fair return to the taxpayer and the fulfilment of the Government's overall energy policy;
- all distribution companies that are majority owned by trusts and other local bodies should be required to have a statement of corporate intent ("SCI") modelled on Transpower's SCI (particularly in relation to service quality, costs and prices);
- that enforcement and future development of the switching protocol should be the responsibility of the Board of the new market structure with a stop-gap of Government regulation to protect against the unlikely event that such a protocol proves inefficient;
- that the Government should invite the industry to put a new governance structure in place within a maximum of 12 months. Failing an early commitment from the industry, the Government should legislate for the regulatory powers to achieve this; and
- that the new governance structure should replace the current governance bodies, NZEM, MARIA and MACQS.

*Government Policy Statement*⁹

56 The recommendations of the Inquiry formed the basis for a Government Policy Statement ("GPS") issued in terms of s 26 of the Act. The GPS set out, amongst other things, the Government's preferences for:

- a set of principles to guide the evolution of arrangements in the industry;
- a new Electricity Governance Board to replace the existing governance arrangements; and
- a widely framed industry arrangement covering the wholesale market, the retail market, common quality and security standards, transmission pricing

⁸ Inquiry into the Electricity Industry, "Report to the Minister of Energy", 12 June 2000.

⁹ Government Policy Statement, "Further Development of New Zealand's Electricity Industry", June 2000. The implications of the GPS in terms of the Commission's consideration of the Application are discussed below.

methodology, transmission system expansion and replacement, and elements of distribution.

- 57 The GPS restated the Government's overall objective to ensure that electricity is delivered in an efficient, fair and environmentally sustainable manner to all classes of consumer and indicated that although the Government favoured industry solutions ahead of regulation the implementation of these changes would have to be timely and effective.
- 58 The GPS incorporated the Government Policy Statement, 'Management of Dry-Year Risk' (15 December 1998) as an attachment, but replaces and supersedes the previous Government Policy Statements issued to the Commission under s 26 of the Act, namely:
- Electricity Transmission (20 December 1994);
 - Development of a Competitive Wholesale Electricity Market (12 December 1995); and
 - Market Power in the Electricity Sector (23 December 1998).
- 59 The GPS notes the Government's policy expectations for industry action and its view on governance matters. More specifically the Government:
- favours industry solutions where possible, but is prepared to use regulatory solutions if necessary;
 - wishes to see further evolution of self regulatory arrangements and establishment of guiding principles for the evolution of such arrangements;
 - requires the establishment of a single governance structure, the Electricity Governance Board, replacing existing governance arrangements of NZEM, MARIA and MACQS, and requires this structure to develop rules, consistent with the guiding principles, in a timely manner and after appropriate consultation;
 - requires compulsory compliance with such rules to the extent necessary to give effect to Government policy; and
 - requires that the industry establish a constitution for an Electricity Governance Board consistent with Government policy. In particular, the Government expects an Electricity Governance Board's constitution to adequately represent consumers and other parties independent of the industry.

60 The GPS identifies further generic requirements in terms of how specific areas of the industry should operate. Such requirements are expected by the Government to be reflected in rules defined by the industry, specifically relating to:

- the wholesale market;
- transmission issues (the GPS includes a specific attachment relating to the objectives and principles for the provision of transmission services);
- distribution and retail issues;
- consumer complaints resolution;
- annual reporting; and
- Government oversight of progress.

61 The Government invited the electricity industry to move quickly to put in place a new governance structure. Further, the Government indicated that it would regulate in the absence of sufficient progress to establish a Governance Board.

62 On 8 December 2000, the Government transmitted the GPS to the Commission under s 26 of the Act. On 19 February 2002 the Government transmitted a new Government Policy Statement to the Commission under s 26 of the Act providing for public disclosure of bid and offer information within 2 weeks (instead of 3 months). In all other respects the 19 February 2002 Government Policy Statement is the same as the 8 December 2000 GPS.

Post Winter Electricity Review

63 In response to record low hydro inflows, increasingly tight supply and record demand for electricity (resulting in very high spot prices) over the winter of 2001 the Government conducted a “Post Winter Electricity Review”.¹⁰ This review considered how effective existing market arrangements were in responding to the developments.

64 The findings of the review were released in December 2001 and included, amongst other things, that:

- the market overall would have worked better had the reforms specified in the GPS of December 2000 (such as improved information disclosure, demand-side participation in the market and mechanisms to invest in the grid to relieve transmission constraints) been fully implemented; and
- the Government should continue to press for implementation of as many measures (of the GPS) as possible prior to the winter of 2002.

¹⁰ Cabinet Finance Infrastructure and Environment Committee, “Post Winter Electricity Review”, December 2001.

The Electricity Amendment Act 2001

- 65 On 7 August 2001, the Electricity Amendment Act 2001 (“the EAA”) became law. The EAA builds on the Inquiry and the GPS and confers power on the Minister to establish a Government regulated Electricity Governance Board (“Crown EGB”). The EAA contains mechanisms to allow the Government to regulate to achieve the objectives contained in the GPS, should the electricity industry itself fail to achieve those objectives.
- 66 The EAA also contains significant regulatory powers to control an Industry Electricity Governance Board (“Industry EGB”) or Crown EGB (once established) and to provide for matters that the Government considers important. The EAA requires the Minister to commence the process for establishing a Crown EGB under certain limited circumstances.¹¹
- 67 In reference to a Crown EGB, s 172N of the EAA reflects the GPS and states that:
- The principal objective of the [Crown] EGB is to ensure that electricity is generated, conveyed, and supplied to all classes of consumer in an efficient, fair, reliable and environmentally sustainable manner.
- 68 This principal objective mirrors the Government’s overall objective for electricity as expressed in the GPS.

Industry response to the GPS

Electricity Governance Establishment Project

- 69 The Electricity Governance Establishment Project (“EGEP”) was established in response to an earlier draft of the GPS (issued on 3 October 2000). The EGEP’s objectives were:
- to respond positively to the GPS and create a single self-regulating approach to electricity industry governance;
 - to create efficiencies in the administration of industry self-regulation;
 - to remove inconsistencies and duplication between industry governance arrangements; and
 - to create a structure that would be capable of evolving and developing electricity market arrangements to achieve long-term public benefits.

¹¹ This applies where the Auditor-General and Parliamentary Commissioner for the Environment both give negative annual audit reports for an electricity governance organisation over two successive years (Section 5, Electricity Amendment Act 2001). This does not limit the Minister’s ability to unilaterally commence a notice and submission process without a negative annual audit report.

- 70 The first step in the project was the establishment of the Electricity Governance Establishment Committee (“EGEC”). EGEC’s role was:
- to achieve an agreed industry governance arrangement based on a multilateral contract; and
 - to act as the project oversight committee until a new Industry EGB was able to assume that role.
- 71 According to M-co, EGEC “comprises representatives of each of the industry areas that will be covered by the new Electricity Governance Board. The Government stressed the need for end-use consumers to be represented and this is also reflected in the composition of the Establishment Committee”.¹² As part of its project structure, EGEC has formulated 3 main working groups comprising committee members who represent industry areas. These are:

Governance

- 72 The Governance Working Group is responsible for the design of the governance arrangement encompassing admission procedures, rule making or decision processes, allocation of decision rights, surveillance, compliance and administration.

Rationalisation

- 73 The Rationalisation Working Group is responsible for the rationalisation of operational rules, so that the existing operational rules of MARIA and NZEM and the proposed MACQS Rules can be merged, then structured into mandatory and non-mandatory sections.

Transport

- 74 The Transport Working Group is responsible for integrating transmission and distribution within the scope of the proposed governance arrangements.

Formulation of the Arrangement

- 75 As stated earlier, the Applicant seeks authorisation from the Commission in terms of ss 58(1) and 58(2) of the Act to enter into the arrangement, and ss 58(5) and 58(6) of the Act to give effect to an arrangement to which ss 27 and 29 of the Act may apply.
- 76 The Arrangement is centred around a Rulebook that was developed by EGEC following consultation between participants in the electricity industry, including generators, distributors, purchasers, Transpower and consumers. The Applicant submits that the Rulebook represents a negotiated set of rules that meet the requirements of the industry as a whole and reflect the interests of all participants, with self-interest being compromised on many issues.

¹² Above n 3, 3.

77 The Rulebook is organised into nine parts. The operative provisions, as described by the Applicant in its Application, are as follows.

Part A - Governance

78 Part A:

- contains provisions dealing with the overall governance of the Arrangement and commences with a set of Guiding Principles that essentially underpin the market and governance design. The Guiding Principles are the touchstone against which rule change proposals are assessed. The Guiding Principles are set out in Appendix 1;
- establishes the Industry EGB, the primary governance body under the Rulebook. Following a prescribed public nomination process, directors of the Industry EGB are elected by generators, purchasers, distributors, grid owners and approved consumer representatives. The Industry EGB has responsibility for approving applications to become members of the Rulebook. Members are entitled to resign from the Rulebook but their resignation will only be effective on a date determined by the Industry EGB;
- includes the processes by which rules are made, that involves receiving rule change proposals, consideration of proposals by industry working groups, procedural steps around accepted and non-accepted rule changes, and voting requirements by members;
- specifies a compliance regime to ensure that members comply with the rules on an ongoing basis. The Rulebook establishes a body known as the Rulings Panel which, amongst other things, adjudicates on compliance matters;
- imposes a general duty on participants (including members) to make all information supplied to them by any participant available to other participants on request, except where compliance with the law requires otherwise;
- includes rules relating to the provision of services to non-members. Where a participant supplies services or benefits to a non-member in circumstances where no contract exists then the Industry EGB is empowered to seek quantum meruit recovery of the fair price of those services or benefits by way of litigation; and
- sets out the voting rights for each part of the Rulebook.

Part B – Consumer Issues

79 This section of the Rulebook is yet to be drafted. In the Application, the Applicant advised the Commission that the intention of Part B is to address consumer matters, and may include the Electricity Complaints Commission scheme.

Part C – Common Quality

- 80 Part C reflects the rules developed under the process contained in MACQS for ensuring the quality of electricity and therefore security of the system. The rules have been developed between Transpower and grid users.
- 81 Section II of Part C sets out the system operator's obligations in relation to the delivery of common quality in real time.
- 82 Section III of Part C:
- contains an obligation on the system operator to agree in advance with the Industry EGB the policies which it intends to apply in real time;
 - sets out the technical standards and other obligations required to be met by asset owners to assist the system operator to achieve its security objectives;
 - allows asset owners to substitute compliance (with a particular standard) with a technical or commercial arrangement which has an equivalent effect to an imposed standard, known as an equivalence arrangement; and
 - provides asset owners with the right to be exempt from any standard where it is prepared to pay the costs consequential to the exemption; known as a transitional dispensation.
- 83 Asset owners connected to the grid on 1 October 2000 have the right to transitional dispensations granted pursuant to the Rulebook.
- 84 Section IV of Part C is concerned with the arrangements agreed by the industry for the procurement of ancillary services. Section IV also contains provisions which enable persons to avoid the costs of certain ancillary services procured by the system operator by establishing their own purchase arrangements, known as alternative ancillary service arrangements.

Part D – Metering Arrangements

- 85 Part D sets out the obligations in relation to metering arrangements, both at points of connection on the grid and at points of connection on local networks.
- 86 The objective of the Part D rules is to ensure that the volume of electricity supplied or taken is measured at the same relative point for each participant to an acceptable level of accuracy.

Part E – Registry Information and Customer Switching

- 87 Part E contains the rules relating to the collection of information relating to ICPs by the registry and sets out rules for customer switching. These rules, and those in Part D, essentially replicate the present rules under MARIA.

Part F - Transport

- 88 Part F introduces a new industry arrangement relating to transmission. It provides a process by which Transpower and its customers may agree service definitions and levels that apply to the transmission services supplied by Transpower to that customer, as well as a pricing methodology for that transmission service.
- 89 Section I of Part F provides for Transpower to develop a service delivery plan which must include a statement of investment opportunities. This service delivery plan sets out Transpower's plan for complying with contracted service levels for a specified period. The statement of investment opportunities sets out proposed investment in new assets by Transpower. Transpower's customers may comment on this, and may propose alternative solutions to transmission investment. Once Transpower commits irrevocably to expenditure identified in the final service delivery plan, for the purposes of determining transmission prices the value of the asset which is the subject of such new investment will not be reduced if demand for the service provided by the asset reduces within five years. The purpose of this protection is to provide Transpower with some certainty in relation to investment, and to create incentives for Transpower customers to reveal when they are considering alternatives, to reduce the prospect of wasteful investment. Transpower will, however, still be subject to the risk that through technological obsolescence the value of the asset will fall.
- 90 Section II of Part F provides a process, including a vote, by which transmission purchasers may agree to a change to a transmission service proposed by the transmission provider. Purchasers are allocated votes based on the amount they would pay for the new or changed service. The process also provides for appeals against a decision to proceed or not to proceed with a service change.
- 91 By providing a process for changing service definitions, measures and levels, the intention is to give transmission purchasers who will be affected by the decision more input into this decision making. This process is also intended to eliminate the incentives to free-ride on investment decisions by other transmission purchasers, as a resolution on a service change which is passed is binding on all transmission purchasers eligible to vote (which are the transmission purchasers that the transmission provider considers will take the new or changed service), including on those who voted against such service change proposal. All transmission purchasers eligible to vote are obliged to take the new or changed service.
- 92 Section III of Part F specifies a process for determining the pricing methodology to be applied by Transpower and other transmission providers. In the case of Transpower, a pricing methodology is developed which applies to services currently delivered by Transpower and which are the subject of section I (defining service definitions, measures and levels). Other transmission providers must develop a pricing methodology when they change a service level (which, by definition, includes supplying a new service). Section III of Part F does not specify a particular price or pricing methodology but rather a process for developing a pricing methodology to apply to a particular service. Both the Industry EGB and transmission purchasers (including Transpower customers) have input into all aspects of this process. The Industry EGB must confirm that the pricing methodology developed by the

transmission provider complies with pricing principles and objectives taken from the GPS.

- 93 Once the pricing methodology is developed, the transmission provider develops specific algorithms for applying that methodology, and an auditor is appointed to verify the correct application of the methodology. Transmission purchasers, including Transpower customers, cannot challenge the validity of a confirmed pricing methodology or its application once verified by the auditor. Transmission purchasers may still, however, challenge the resulting prices on other grounds, for example on the basis of an error in calculation.

Part G – Trading Arrangements

- 94 Part G contains the rules relating to the multilateral trading arrangement between members of the Rulebook and derive from the NZEM Rules.
- 95 The rules in Part G establish a wholesale market for electricity trading which has the following characteristics:
- bids and offers for electricity and reserves are submitted;
 - the system operator prepares and implements dispatch arrangements based on trading prices;
 - the pricing manager calculates provisional and final prices; and
 - the reconciliation manager reconciles quantities traded and amounts owed.

Part H – Clearing and Settlement

- 96 The rules in Part H concern the processes for the settlement of the sale and purchase of electricity under the Rulebook, together with various other payments, including amounts owing to service providers and to those members who pay for ancillary services. Part H also provides for the provision by the clearing manager of invoices to purchasers, and the production of purchaser invoices to generators, thereby creating an obligation on purchasers to pay the clearing manager and an obligation on the clearing manager to pay generators. The rules draw heavily from the clearing and settlement rules that presently exist within NZEM.
- 97 Part H also contains rules relating to prudential requirements. In essence, purchasers of electricity are obliged to provide prudential cover totalling slightly more than the amount which would be outstanding at the time settlement is made each month. The clearing manager is charged with responsibility for the collection, holding and monitoring of prudential requirements.
- 98 An important element of Part H is the formation of contracts between participants in the trading arrangements of the Rulebook and provisions dealing with default situations.
- 99 Fees and other payments made by members are also described in Part H.

Part I – Implementation and Transition Issues

- 100 Part I provides for the transition from the NZEM and MARIA trading arrangements to the trading arrangement of the Rulebook. This Part contains a number of provisions to address issues arising from the termination of the existing codes and the establishment of the new multilateral arrangement. These rules include administrative provisions which provide for the transfer of interim membership applications, and the transfer of information and records.
- 101 Part I also includes rules which provide for the Industry EGB to take responsibility for any compliance issues arising out of the existing codes which are not resolved on the date the new rules become operational. Other transitional arrangements provided for in this section include:
- provisions allowing for the continuance of the GSC as a working group of the Industry EGB for a six month period;
 - a clause providing a grace period for inadvertent breaches of rules where the rules have changed from those in existing codes;
 - fast-track approval procedures for service provider contracts;
 - a provision granting certain purchasers a transitional exemption from bid offer requirements;
 - provisions relating to a "must run" dispatch auction derived from existing NZEM arrangements; and
 - provisions which allocate rule development costs incurred under the existing codes.

Supplementary documents

- 102 The Rulebook is to be supplemented by the following documents that jointly comprise the Arrangement:
- service provider contracts (yet to be agreed);
 - a declaration of trust;
 - a deed poll;
 - individual contracts by which members of the Rulebook will agreed to be bound (yet to be drafted);
 - ancillary service contracts; and
 - System Operator policy statements and procurement plans.

CONSIDERATION TO BE GIVEN TO GOVERNMENT POLICY STATEMENTS

- 103 The implications of government policy statements issued in terms of s 26 of the Act have previously been considered by the Commission and the High Court.¹³ The Commission has noted that:

... having regard to the general policy discretion in the Act to promote competition sec 26 may be used to advise the Commission of Government policy or policies or to be more specific in relation thereto. It is not to influence or determine the decisions which the Commission must make. Thus, fully preserving the discretions given to the Commission in the Act, the Commission is required only 'to have regard to' such statements in reaching its decisions.¹⁴

- 104 The High Court (Wylie J) held that the issuing of Government Policy Statements in terms of s 26:¹⁵

... is the exercise of a statutory right specifically conferred on {the Minister} by the Legislature for the very purpose of influencing the outcome of applications under the Act. That is not to say that the Commission ... is bound to apply the policy so transmitted to it. The statutory injunction of section 26 is no greater than that the Commission 'shall have regard to' the Government's policy.

...

As with any other evidence it is for the tribunal to assess the weight to be given to each item of evidence and in the case of a statement of this kind, which in our view is simply an evidentiary statement of Government policy - it is certainly not a direction - it remains for the tribunal to assess the weight to be given to it as an expression of official perception of, in this case, public benefit."

...

The tribunal may not ignore the statement. It must be given genuine attention and thought, and such weight as the tribunal considers appropriate. But having done that, the tribunal is entitled to conclude it is not of sufficient significance either alone or together with other matters to outweigh other contrary considerations which it must take into account in accordance with its statutory function: ... In the end, however weighty the statement may be as an expression of considered Government policy, it does not have any legislative effect to vary the nature of the duties which the tribunal must carry out.¹⁶

- 105 In reaching its determination, the Commission has given careful consideration to, and has regard to, the GPS statements transmitted to it by the Government. It has, for example, measured the competition and public benefit and detriment impacts of the Arrangement against a counterfactual scenario in which the GPS forms the basis of the guiding principles for the governance arrangements.
- 106 The Commission notes, however, that differences between the GPS and the Guiding Principles are not, in themselves, directly relevant to the assessment of the application. Rather what is relevant is whether or not the differences give rise to matters which fall within the ambit of the relevant provisions of the Commerce Act.

¹³ *Re New Zealand Kiwifruit Exporters Associations (Inc) – New Zealand Kiwifruit Coolstorers Association (Inc)* (1989) 2 NZBLC (Com) 104,485.

¹⁴ Above n 13, 104,494.

¹⁵ *New Zealand Co-operative Dairy Company Ltd & Anor v Commerce Commission* [1992] 1 NZLR 601, 612.

¹⁶ Above n 15, 612.

APPLICATION OF THE COMMERCE ACT 1986

107 The Commission's jurisdiction to authorise the entry into certain arrangements or to give effect to certain provisions of an arrangement is found in s 58 of the Act, the relevant provisions of which provide:

58. Commission may grant authorisation for restrictive trade practices—
- (1) A person who wishes to enter into a contract or arrangement, or arrive at an understanding, to which that person considers section 27 of this Act would apply, or might apply, may apply to the Commission for an authorisation to do so and the Commission may grant an authorisation for that person to enter into the contract or arrangement, or arrive at the understanding.
 - (2) A person who wishes to give effect to a provision of a contract or arrangement or understanding to which that person considers section 27 of this Act would apply, or might apply, may apply to the Commission for an authorisation to do so, and the Commission may grant an authorisation for that person to give effect to the provision of the contract or arrangement or understanding.
 - (5) A person who wishes to enter into a contract or arrangement, or arrive at an understanding to which that person considers section 29 of this Act would apply, or might apply, may apply to the Commission for an authorisation for that person to enter into the contract or arrangement or arrive at the understanding.
 - (6) A person who wishes to give effect to an exclusionary provision of a contract or arrangement or understanding to which that person considers section 29 of this Act would apply, or might apply, may apply to the Commission to do so, and the Commission may grant an authorisation for that person to give effect to the exclusionary provision of the contract or arrangement or understanding.

108 Section 61 details the factors that the Commission must satisfy itself of before granting an authorisation, the relevant provisions of which are set out below:

61. Determination of applications for authorisation of restrictive trade practices—
- (1) The Commission shall, in respect of an application for an authorisation under section 58 of this Act, make a determination in writing—
 - (a) Granting such authorisation as it considers appropriate:
 - (b) Declining the application.
 - (2) Any authorisation granted pursuant to section 58 of this Act may be granted subject to such conditions not inconsistent with this Act and for such period as the Commission thinks fit.
 - (3) The Commission shall take into account any submissions in relation to the application made to it by the applicant or by any other person.
 - (4) The Commission shall state in writing its reasons for a determination made by it.
 - (5) Before making a determination in respect of an application for an authorisation, the Commission shall comply with the requirements of section 62 of this Act.

- (6) The Commission shall not make a determination granting an authorisation pursuant to an application under section 58(1) to (4) of this Act unless it is satisfied that—
- (a) The entering into of the contract or arrangement or the arriving at the understanding; or
 - (b) The giving effect to the provision of the contract, arrangement or understanding; or
 - (c) The giving or the requiring of the giving of the covenant; or
 - (d) The carrying out or enforcing of the terms of the covenant—
- as the case may be, to which the application relates, will in all the circumstances result, or be likely to result, in a benefit to the public which would outweigh the lessening in competition that would result, or would be likely to result or is deemed to result therefrom.
- (6A) For the purposes of subsection (6) of this section, a lessening in competition includes a lessening in competition that is not substantial.
- (7) The Commission shall not make a determination granting an authorisation pursuant to an application under section 58(5) or (6) of this Act unless it is satisfied that—
- (a) The entering into of the contract or arrangement or the arriving at the understanding; or
 - (b) The giving effect to the exclusionary provision of the contract, or arrangement or understanding—
- as the case may be, to which the application relates, will in all the circumstances result, or be likely to result, in such a benefit to the public that—
- (c) The contract or arrangement or understanding should be permitted to be entered into or arrived at; or
 - (d) The exclusionary provision should be permitted to be given effect to.

109 The Commission's approach is to first satisfy itself that the relevant contract, undertaking, arrangement or provision would or would be likely to result in a lessening of competition.

110 Section 61(6A) provides that the lessening of competition includes a lessening that is not substantial. Once the Commission is satisfied that the relevant contract, understanding, arrangement or provision would result, or would be likely to result, in a lessening of competition or is deemed to result in a lessening of competition it will go on to assess the benefits and detriments that would, or would be likely to, result from the relevant arrangement or provision.

111 The Commission set out its approach in *Re Weddel Crown Corp Ltd*.¹⁷ Since then certain changes to the Act have been made. The Commission's approach is succinctly summarised in *Gault on Commercial Law*.¹⁸ The Commission asks the following six questions:

- (i) What is the relevant market (or markets) in which the effect of the practice upon competition is to be evaluated?
- (ii) Is the practice for which approval is applied for, one to which the applicant considers s 27 (or other appropriate section) of the Act would apply, or might apply? At this point the Commission may still wish to determine whether any of the exemptions in ss 43, 44

¹⁷ (1987) 1 NZBLC (Com) 104,200 at 104,214.

¹⁸ At paragraph 61.06.

or 45 apply. Also, is it a practice to which s 36 applies — in which case authorisation cannot be granted.

- (iii) To what extent does the contract or arrangement in question result in a ‘lessening of competition’ in the market or markets affected by the practice?
- (iv) What are the effects caused by the lessening of competition referred to above?
- (v) Does the contract or arrangement result or will it be likely to result in a benefit to the public? (The applicants have an evidential onus to show benefit or benefits to the public).
- (vi) Does the net public benefit which is found to exist from the practice outweigh any net competitive detriment from the lessening of competition in the relevant market?

112 In summary, the Commission first considers the relevant markets. It then considers whether any of the provisions of an arrangement are likely to result in a lessening of competition in any of those relevant markets. If some of the provisions lessen competition, or contain exclusionary provisions, the Commission then considers the benefits and detriments that are likely to result from parties entering into the arrangement or giving effect to the provisions.

113 In considering the current Application the Commission has first considered whether there are any provisions that are deemed to result in a lessening of competition. The Commission has then proceeded to consider the benefits and detriments that would, or would be likely to, result from authorising parties to enter into the Arrangement or to give effect to the Provisions. The consideration of benefits and detriments incorporates an assessment of whether the Arrangement and its provisions lessen competition and the extent of such a lessening if it is present.

PROVISIONS LESSENING COMPETITION

114 The Commission has considered whether any of the Provisions are deemed to breach s 27 of the Act because they fall within s 30.

115 In the initial application, the Applicant submitted that there were three price determination processes contained in the Rulebook that could raise competition concerns as they could be deemed to substantially lessen competition. They submitted that the Provisions might fall within s 30 and so be deemed to substantially lessen competition for the purposes of s 27 of the Act. These were:

- (a) Wholesale electricity prices;
- (b) Prices for Rulebook services for non-members; and
- (c) Transmission prices.

116 As noted, and discussed, in the Draft Determination the Applicant also submitted that issues could also arise in relation to the cost allocation procedure set out in the Rulebook.

The Law

117 Central to this determination is the interpretation of s 30. For convenience it is helpful to start by setting out the statutory provisions.

118 Section 27 of the Act provides:

27. Contracts, arrangements, or understandings substantially lessening competition prohibited.
- (1) No person shall enter into a contract or arrangement, or arrive at an understanding, containing a provision that has the purpose, or has or is likely to have the effect, of substantially lessening competition in a market.
 - (2) No person shall give effect to a provision of a contract, arrangement, or understanding that has the purpose, or has or is likely to have the effect, of substantially lessening competition in a market.
 - (3) Subsection (2) of this s applies in respect of a contract or arrangement entered into, or an understanding arrived at, whether before or after the commencement of this Act.
 - (4) No provision of a contract, whether made before or after the commencement of this Act, that has the purpose, or has or is likely to have the effect, of substantially lessening competition in a market is enforceable.

119 Section 30 of the Act provides:

30. Certain provisions of contracts, etc, with respect to prices deemed to substantially lessen competition:
- (1) Without limiting the generality of section 27 of this Act, a provision of a contract, arrangement, or understanding shall be deemed for the purposes of that section to have the purpose, or to have or to be likely to have the effect, of substantially lessening competition in a market if the provision has the purpose, or has or is likely to have the effect of fixing, controlling, or maintaining, or providing for the fixing, controlling, or maintaining, of the price for goods or services, or any discount, allowance, rebate, or credit in relation to goods or services, that are—
 - (a) Supplied or acquired by the parties to the contract, arrangement, or understanding, or by any of them, or by any bodies corporate that are interconnected with any of them, in competition with each other; or
 - (b) Resupplied by persons to whom the goods are supplied by the parties to the contract, arrangement, or understanding, or by any of them, or by any bodies corporate that are interconnected with any of them in competition with each other.
 - (2) The reference in subsection (1)(a) of this section to the supply or acquisition of goods or services by persons in competition with each other includes a reference to the supply or acquisition of goods or services by persons who, but for a provision of any contract, arrangement, or understanding would be, or would be likely to be, in competition with each other in relation to the supply or acquisition of the goods or services.

- 120 There are two questions to ask to help establish whether a provision or arrangement might fall within s 30, namely:
- (a) Is the provision part of a contract, arrangement or understanding between competitors (or persons who would be in competition but for the provision); and
 - (b) If so, does the provision have the purpose, effect or likely effect, of fixing, controlling or maintaining the price of goods or services (or does it provide for the fixing, controlling or maintaining the price of goods or services)?
- 121 If the answer to both questions is yes, s 30 deems the provision to substantially lessen competition, and a competitive assessment as to whether it does substantially lessen competition in terms of s 27 is not required.
- 122 Often the answer to the first question is straightforward. The significant issue in s 30 is the meaning given to “fix, control or maintain”, and in particular, whether those words should be given their broad literal meaning, or whether they should be interpreted in a more contextual or purposive manner?
- 123 The Commission considers that while the Act is neither pure law nor pure economics, it is a statute that is built on and incorporates economic concepts. The Commission considers that the Act attempts to follow a very pragmatic path.¹⁹ While any analysis must be economically plausible, the Act should be interpreted and applied in a pragmatic or “real world” way.
- 124 The Commission considers that a purposive interpretation of the Act is required by the Interpretation Act 1999. Section 5(1) of the Interpretation Act 1999 provides:
5. Ascertaining meaning of legislation—
 - (1) The meaning of an enactment must be ascertained from its text and in the light of its purpose.
 - (2) The matters that may be considered in ascertaining the meaning of an enactment include the indications provided in the enactment.
 - (3) Examples of those indications are preambles, the analysis, a table of contents, headings to Parts and sections, marginal notes, diagrams, graphics, examples and explanatory material, and the organisation and format of the enactment.
- 125 Accordingly, an interpretation that best promotes, or assists in the achievement of, the objective(s) of the Act should be adopted where required.
- 126 For the purposes of this Determination, this requires a consideration of the mischief at which s 30 is directed, and the consequences that flow from adopting one possible interpretation over another.
- 127 Further to this, the Commission considers that it is significant that s 30 creates a *per se* breach.²⁰ This *per se* element demonstrates that conduct, which falls within the

¹⁹ For instance the definition of competition as “workable or effective competition” in s 3(1) and the reference to a market for goods as encompassing goods “that, as a matter of fact and commercial common sense, are substitutable for them” in s 3(1A).

²⁰ It deems a price fix to have an anti-competitive effect for the purposes of s 27.

section, was seen by Parliament to strike at the heart of the competitive process. It is conduct that is to be viewed seriously. If an interpretation of s 30 were to be adopted that brought conduct within the scope of the section that was plainly, in competition terms, commonplace and unobjectionable,²¹ that would be a strong indication that such an interpretation was wrong.

- 128 While the Commission notes that the authorisation process is available, the Commission considers that it is unlikely that Parliament intended participants in commonplace and competitively innocuous commercial arrangements would have to constantly go to the Commission for authorisation.

Contract, arrangement or understanding between competitors

- 129 In the Draft Determination the Commission considered this a straightforward issue. The Rulebook requires each member to sign individual deeds by which they agree to be bound by the Rulebook. This agreement to be bound by the Rulebook establishes a contract, arrangement, or understanding between members. In addition, Parties to the Rulebook compete with other members of the Rulebook. Accordingly, it appears that there is a contract, arrangement, or understanding between competitors.
- 130 In the present context the position is not so straightforward. Section 30 draws a distinction between suppliers and acquirers. In s 30(1)(a) it provides that it applies to the fixing of prices for goods or services that are “supplied or acquired by the parties to the ... arrangement...”.
- 131 The use of “or” not “and” suggests that s 30 is directed at arrangements at a horizontal and not a vertical level. In this case the Arrangement is between suppliers and acquirers, which indicates that this is not something to which s 30 is directed. Yet, as the Arrangement includes some suppliers and some acquirers there are both horizontal and vertical arrangements. The Commission also recognises that there is a large degree of vertical integration in the industry. This raises the issue of whether there are any vertical arrangements between suppliers and acquirers or simply arrangements between parties who both happen to be suppliers and acquirers. That complexity, notwithstanding, due to the horizontal arrangement it is necessary to consider the second issue as to whether the Arrangement has the purpose or effect of fixing, maintaining or controlling prices.

The effect of fixing, controlling, or maintaining, or providing for the fixing, controlling, or maintaining of prices

- 132 The main issue in relation to each of the price determination processes is whether either (or all) of the following have the purpose, effect or likely effect, of fixing, controlling or maintaining the price of goods or services or providing for the fixing, controlling, or maintaining of the price of goods or services supplied or acquired by parties who are in competition with each other:

²¹ For example tender or auction processes (discussed in later paragraphs) that effectively set market prices for a line of goods and/or for a period of time, or exchanges for products like futures or shares, which establish rules-based markets.

- pricing of services to non members;
- wholesale electricity price determination process;
- transmission price determination process; or
- cost allocation procedure,

Relevant Case Law

- 133 The meaning of “fixing, controlling or maintaining” was considered in *Radio 2UE Sydney Pty Ltd v Stereo FM Pty Ltd*²² (“*Radio 2UE*”) and on appeal to the Federal Court.²³ At first instance Lockhart J adopted a dictionary meaning of “fix” and “maintain”. His Honour commented on “fix”:²⁴

The Shorter Oxford Dictionary defines the verb ‘fix’ as: ‘To fasten, make firm or stable; ... to attach firmly; ... settle permanently.’ The Macquarie Dictionary defines the word as: ‘1. To make fast, firm, or stable. 2. To place definitely and more or less permanently. 3. To settle definitely; determine; to fix a price.’

- 134 After looking at the various definitions of “maintain”, his Honour commented:²⁵

In my view “maintain” where used in [the Australian equivalent of s 30], has a similar connotation to the verb ‘fix’ in that it involves some element of continuity, not merely being momentary or transitory. Generally, to maintain a price assumes that it was fixed beforehand.

- 135 In *Insurance Council of New Zealand (Inc) Decision 236*²⁶ (“*Insurance Council*”) the Commission considered the application of s 30 to certain aspects of the “Knock for Knock” agreement to which a majority of New Zealand car insurers were parties. Having discussed relevant authorities from other jurisdictions, the Commission, in adopting Lockhart J’s definitions of ‘fix’ and ‘maintain’, summarised the phrase ‘fix, control or maintain’:²⁷

In all of the cases noted above, the terms ‘fix’, ‘control’ and ‘maintain’ are synonymous with an interference with the settling of a price, as opposed to allowing such a price to be set in response to changes in the supply and demand for goods and services. Thus, in a technical sense any agreement by competitors in a market which has an influence on, or interferes with the setting of a price, amounts to ‘price fixing’. However, following Lockhart J for that interference to have any significance in a competition sense, the price that is fixed must not be “instantaneous or merely ephemeral, momentary or transitory or be the result of arrangements which merely incidentally affect it.

- 136 A distinction between provisions which merely have an incidental affect on price rather than “fixing, controlling or maintaining” price was made in both the *Radio 2UE* and the *Insurance Council* decisions. In the *Insurance Council* decision, the Commission concluded that s 30 only applies to price fixing in a competition sense.

²² (1982) 4 ATPR 43,912.

²³ (1983) 5 ATPR 44,398.

²⁴ Above n 22, 43,921.

²⁵ Above n 22, 43,921.

²⁶ (1989) 2 NZBLC (Com) 99-522.

²⁷ Above n 26, 104,482.

137 The Commission observed:²⁸

Thus while the Agreement might have influenced the price of insurance, the Council having itself stated that the price of insurance sold by a signatory is different to what it would have been in the absence of the Agreement, the Commission is not satisfied that this amounts to ‘price fixing’ in a competition sense. The effect of the Agreement is to remove the cost element from the price, the price minus that element then moves in response to normal competitive pressures. Accordingly, the Commission considers that the agreement does not constitute the ‘fixing’, ‘controlling’ or ‘maintaining’ of the price of motor vehicle insurance in terms of s 30 and cannot therefore be deemed to ‘substantially lessen competition’ in terms of s 27.

138 The issue of whether a provision must affect price in a ‘competition sense’ was reviewed in two recent decisions. The decisions discuss the meaning of the word “control” in relation to s 30 (or its Australian equivalent). In *Australian Competition and Consumer Commission v CC (NSW) Pty Limited*²⁹ (“ACCC v CC”) parties arrived at an understanding for the payment of a fee by the successful tenderer to each of the unsuccessful tenderers of a particular building project. The Federal Court of Australia was asked to consider whether this was likely to have the effect of controlling the price charged for the building project.

139 Lindgren J found that the understanding would have the effect of ‘controlling price’ if it restrained a freedom that would otherwise exist as to the price to be charged. It was not necessary for there be some specificity as to price. Because of this, the understanding could fall within the terms of the Australian equivalent of s 30 without controlling price competition:³⁰

Concretes also submits that because the supposed UTF understanding left the tenderers with a great deal of freedom as to the price which they would charge, it did not have the effect of controlling price competition and therefore did not fall within the terms of (the Australian equivalent of s 30). It seems to me, however, that putting to one side de minimis cases, the degree of control, although relevant to penalty, is not relevant to the issue of contravention. I do not consider the degree of control here to have been de minimis.

140 In *Commerce Commission v Caltex New Zealand Limited*,³¹ it was alleged that the simultaneous withdrawal of a free car wash offer by three petrol companies was a breach of s 27 of the Act by virtue of the s 30 deeming provision. On a strike out application, the High Court found that, in order to establish price fixing, it was not necessary for there to be certainty and agreement on what the new price levels would be. Elias J stated:

If the Commission is correct in its contention that the promotion operated as an integral part of petrol or car-wash pricing or was a discount in relation to petrol or car-wash services (which seems to me to be a matter which can only be determined after hearing evidence), then an agreement to withdraw the promotion and increase the price or remove the discount seems to me to be within the scope of ss 27 and 30 irrespective of whether the companies are free to compete on price or discount in other ways in the future. There is no authority for the proposition that in order to establish price fixing or impact upon competition it is necessary to establish a fixed price or agreed discount for the future. I agree with the submission made by Mr Hansen QC that if that were so it would be easy to drive a coach and four through the Act. Nor do I think it can be said, in the absence of further agreement to fix prices, that the result is ephemeral.

²⁸ Above n 26, 104,483.

²⁹ (1999) ATPR 41-732 (FC).

³⁰ Above n 29, 43,511.

³¹ [1998] 2 NZLR 78; (1998) 6 NZBLC 102,505.

- 141 The above extract was later referred to by Salmon J in the substantive decision.³² Salmon J adopted the definition of ‘control’ in the *Shorter Oxford English Dictionary* To exercise restraint or direction upon the free action of.
- 142 Salmon J agreed with the findings of Elias J that there was no need for certainty and agreement on price levels to establish price fixing.
- 143 Once there is a finding that a provision is a price fix, the competitive effect of the provision is irrelevant in respect of the deeming provision. In *Commerce Commission v Taylor Preston Limited*³³ (“*Taylor Preston*”) Fisher J stated:³⁴

The result is that once a price-fixing provision has been established it is to be conclusively assumed that it is inherently anti-competitive. It will not be open to a defendant to submit, or to call expert evidence to suggest the contrary. I do not see this as a matter of onus of proof. The price-fixing provision ‘shall be deemed’ to have the purpose, likely effect, or actual effect stipulated. The presumption is irrebuttable.

- 144 This was confirmed in the subsequent case of *Commerce Commission v Caltex New Zealand Limited*³⁵ (“*CC v Caltex*”):

An arrangement or understanding which comes within the terms of [s 30(1)] is deemed to have the purpose or to have or to be likely to have the effect of substantially lessening competition in a market. Whether in fact it has that effect is irrelevant.

The Commission’s approach

- 145 In the *Insurance Council* decision, the Commission determined that the key feature of a price fix is some interference with the operation of market forces on pricing.
- 146 The Commission considered this further in relation to the NZEM Rules (*Decision No. 280 Electricity Market Company Limited* (13 September 1996)) (“*Decision 280*”), where the Commission adopted a purposive approach to the interpretation of “fix, control, or maintain”. The Commission considers that it is appropriate to consider the existence of artificial constraints or an interference with the competitive process.
- 147 In summary, the Commission takes the view that a price will be fixed, controlled or maintained for the purposes of s 30 where there is some artificial interference with, or constraint on, the finding of a price or prices by competitive forces or processes (in particular the interaction of supply and demand).
- 148 The Commission considers that its approach is consistent with the relevant case law.

³² *Commerce Commission v Caltex New Zealand Limited* (1999) 9 TCLR 305.

³³ [1998] 3 NZLR 498; (1998) 6 NZBLC 102,470.

³⁴ Above n 33, 102,479.

³⁵ Above n 32, 311.

Application to the relevant Provisions

- 149 The Commission acknowledges the comments made by the Applicant and others during the Conference that in order for some markets to work effectively, some market arrangements are necessary. Market rules need to be established and this is usually done by agreement between competitors. For the Arrangement to work, the Commission accepts that the particular characteristics of the electricity industry mean that some form of market arrangement is required. The Applicant has provided the Commission with great detail about the way the Arrangement is to operate, and the Commission does not need to repeat that detail.
- 150 Prior to analysing the price determination processes set out above, the Commission considers that there are a number of important points to note about the present Application.
- 151 First, electricity is a relatively unusual, homogenous product, which must be consumed as it is produced. Given the geographic distance of many generating plants from large loads and the existence of economies of scale, efficiency suggests that there should be a national backbone grid, accessible to all who wish to use it. But to operate an electricity market in the nature of a spot market, and to operate a national grid accessible to all, a range of technical and other agreements is required. Accordingly, the Commission considers that the existence of such agreements is not of itself problematic in competition terms. What may be problematic is the content of those agreements.
- 152 Second, the proposed Rulebook is a multi-lateral contract to which those who wish to sell or purchase electricity through the market must agree. Service providers are also bound by the rules. The fact that in many instances both sellers and purchasers are parties to the arrangement that is said to constitute price fixing is important. A price fix typically occurs amongst sellers or, alternatively, amongst purchasers, and this is reflected in the language of s 30.³⁶ This point is not conclusive, of course, as the Arrangement includes arrangements between suppliers and arrangements between acquirers and the New Zealand electricity market is characterised by a high level of vertical integration between sellers (generators) and buyers (retailers), but it is significant.
- 153 Third, the market is a “blind” market, in the sense that at the time of offering in neither the sellers nor the purchasers know who else has offered in or what offers they have made. The Commission does note that once the pre-dispatch schedule is compiled, those bidding in have the opportunity to revise their bids.
- 154 Fourth, in the ordinary course, generators must offer in at a positive price – offers in at zero or at prices below zero (i.e. negative prices) are not permitted subject to two exceptions.³⁷

³⁶ Section 30 refers to a contract, arrangement or understanding under which goods or services are supplied or acquired.

³⁷ Part I, section VI, rule 1.14.

- the Clearing Manager is obliged to hold a “must run dispatch” auction each day, generators may bid for the right to offer electricity into the market at a zero price;³⁸ and
 - a generator may offer electricity into the market at a negative price, or at zero without an authorisation from an auction.³⁹
- 155 Fifth, the market-clearing price is set at the point where the supply and demand curves intersect. While purchasers do bid into the market, the reality is that demand is set by actual consumption from time to time. Peak demand in any given trading period will intersect with the offer stack to set the price for that trading period.
- 156 Sixth, generators called on to supply in any trading period receive *essentially* the same price whatever their offer price (the market clearing price process).⁴⁰
- 157 Seventh, the price is calculated by reference to a mechanism set out in the Rulebook.⁴¹ That mechanism identifies the input data and the methodology that will be used.

Prices for Rulebook services for non-members

- 158 In the Application, the Applicant submitted that the provisions setting prices for Rulebook services supplied by members of the Rulebook to non-members were deemed by s 30 to have the purpose, effect or likely effect of substantially lessening competition.
- 159 Under the Rulebook, there is an agreement between members that the fair price for the provision of Rulebook services to non-members is the sum of the following amounts:⁴²
- (a) the price payable under the Rulebook;
 - (b) the extra quantifiable costs incurred by participants as a result of the non-member taking a service or benefit without becoming a member; and
 - (c) an extra 1% of the amount specified in (a) above, to account for extra benefits received by the non-member as a result of that non-member not contracting for a fixed or indefinite term to use and pay for those services or benefits.
- 160 The Rulebook provides that members must provide Rulebook services to non-members at the fair price for that service determined in accordance with Part A, section IX, rule 2.1.⁴³

³⁸ The Commission does note that the price paid for the right to bid in at zero by successful generators is distributed to purchasers in accordance with a formula (Part I, section VI, rule 1.6).

³⁹ As noted in the circumstances referred to in Part I, section VI, rule 1.15.

⁴⁰ The Commission uses the term “essentially” because as the price is calculated at approximately 250 grid connection points throughout the country there are price variations to reflect transmission losses, transmission constraints and so on.

⁴¹ Part G, section IV, rule 3.

⁴² Part A, section IX, rule 2.1.

⁴³ Part A, section IX, rule 2.3.

161 The Applicant agreed with the Commission's interpretation in the Draft Determination, submitting:⁴⁴

...the Commission is correct in its conclusion that the arrangement for charging non-members for Rulebook services falls within the ambit of section 30.

162 Accordingly, the Commission considers that prescribing elements that make up the fair price amounts to an agreement between members as suppliers to fix the prices to be charged to non-members, the acquirers, for Rulebook services. Such an agreement is deemed, by s 30 of the Act, to have the purpose, effect or likely effect of substantially lessening competition for the purposes of s 27.

Wholesale electricity price determination process

163 The Commission considers that the critical question here is whether there is any artificial constraint on, or interference with, a competitive price finding process and not whether the wholesale price of electricity is determined by reference to an agreed formula. The Commission considers that there are two aspects of the wholesale electricity price determination process that have the potential to be artificial constraints or interferences, namely:

- the market clearing price ; and
- the limitations on zero and negative pricing.

164 In the Application, the Applicant submitted that the provisions, which provide for the setting of wholesale electricity prices, do not have the purpose, effect, or likely purpose or effect, of fixing prices in the market for electricity.

165 This submission was largely based on the Commission's decision in relation to Decision 280. In Decision 280 the Commission considered that mechanisms for determining wholesale electricity prices, similar to those contained in the Rulebook, did not constitute price fixing under s 30.

166 The Commission also received a wide range of submissions on the application of s 30 to wholesale electricity prices both prior to, and at, the Conference. A number of parties agreed with the Commission's interpretation of s 30 set out in the Draft Determination. Many of the submissions received on this issue were very similar to, and supported, the submissions received from the Applicant. For the purpose of this Determination it is sufficient to summarise the Applicant's contentions.

167 The Applicant submitted that:

- the wholesale electricity price determination process determines the spot dispatch price for electricity and members of the Rulebook are still able to trade electricity at any price they choose;

⁴⁴ Above n 1, Appendix B, paragraph 3.1(a).

- price finding is not price fixing;
- none of the cases referred to by the Commission in the Draft Determination change the law as stated in *Insurance Council* and later applied in *Decision 280* that price fixing requires “an interference with the setting of a price, as opposed to allowing such a price to be set in response to changes in the supply and demand for goods and services”;
- the pricing provisions do not “interfere” with the setting of electricity prices;
- the wholesale electricity price determination process allows the price of electricity to be determined in response to the supply and demand for electricity;
- there is no effect on price competition; and
- if the wholesale electricity price determination process falls within s 30 then so would exchanges, auctions and tender processes.

168 A number of the features of the pricing mechanisms considered in the NZEM Decision are similar to those set out in the Rulebook:

- purchasers determine and place their price and quantity bids independently of each other;
- the pricing mechanisms place no limits or constraint on any party’s bids or offers;
- the pricing mechanisms determine price by generating the intersection of the supply and demand curves. This creates the market clearing price for all trades in each half-hour period; and
- the pricing mechanisms work to prevent either generators or wholesalers from predetermining prices.

169 The Commission does not consider that the market clearing price is an interference with a competitive price finding process. Rather, it is, in economic terms, the proper outcome of that process. Given the nature of electricity, it is possible for a spot market price to replicate the pure economic model of pricing in competitive markets much more closely than would normally be observed, as Mighty River’s submission on the Draft Determination put it:⁴⁵

Some form of wholesale pricing mechanism is necessary in any physical electrical 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 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.

⁴⁵ Mighty River Power Limited, “Submission to Commerce Commission on Electricity Governance Board Limited Draft Determination”, 22 May 2002, 4.

- 170 The theory of pricing in a competitive industry is that a competitive price will be set at the point where the industry supply curve intersects with the industry demand curve. Any firm that supplies in that market will adjust its output until its marginal cost equals the prevailing market price. What the Arrangement does is attempt to replicate this process so as to identify the prevailing market price.
- 171 The Commission has considered whether the limitations on zero and negative pricing raise concerns under s 30, and finds that they do not. In a competitive market the Commission would expect to observe some generators offering in at negative prices in some trading periods (i.e. some generators will be prepared to pay purchasers for the ability to keep generating). Arguably, a prohibition or limitation on such pricing might constitute an artificial constraint on, or an interference with, a fully competitive price finding process. However, the Commission notes the following:
- the Commission understands that negative prices would rarely prevail;
 - the Commission understands that negative prices cannot occur because the algorithm that finds the price cannot solve for negative prices (i.e. it is a technical constraint and not something that is inherently designed to limit the movement of prices); and
 - the ‘must-run’ dispatch auction provides a mechanism to overcome the problems created by the inability to solve the problem of negative prices in the Arrangement. The Commission acknowledges that the must-run auction approximates the outcome that could be achieved without the technical limitation.
- 172 The Commission considers that the wholesale electricity price determination process does not fall within s 30 of the Act, as it does not have the purpose, effect or likely effect, of fixing, controlling or maintaining the price of goods or services or providing for the fixing, controlling, or maintaining of the price of goods or services supplied or acquired by parties who are in competition with each other.
- 173 Not all auction, tender or market arrangements will necessarily fall outside the ambit of s 30. If arrangements contain provisions or ancillary arrangements that result in prices being fixed, controlled or maintained, in the sense that there is an artificial interference with the setting of price, they will breach s 30.⁴⁶ The Commission’s Determination in this case is based on the particular facts of the Application.

Transmission price determination process

- 174 In its Application the Applicant submitted that the Rules included in Part F, which provide for the development of a pricing methodology for transmission services, did not constitute price fixing.

⁴⁶ For example, above n 29.

- 175 The pricing methodology provisions provide for a process to be followed in determining a pricing methodology. The Applicant stated that:
- the process for developing a pricing methodology is merely a consultative one and the transmission provider has discretion to consider or ignore submissions on the pricing methodology; and
 - no “contract, arrangement or understanding” exists in relation to the pricing methodology.
- 176 In the Draft Determination the Commission considered that there was a “contract, arrangement or understanding” as to the process the transmission provider must undertake in relation to determining a pricing methodology.
- 177 In response to the Draft Determination the Applicant submitted that:⁴⁷
- The same interpretation of section 30 would also seem to capture the situation where the vertically integrated owner of a bottleneck facility makes it available to another party to enable competition in the downstream market. That is, there would be an agreement between parties who compete in the acquisition and/or re-supply of the bottleneck service and the terms of the agreement would affect the price of the service in the downstream market. Such a rule could put a party with significant market power in relation to a bottleneck service in a position where it could (1) breach section 36 by not providing access and yet (2) breach section 30 by providing access.
- 178 The Commission notes that the proposed transmission price determination process is new to the electricity market and that it arose, in part, from the desire of market participants to clarify the basis for provision of transmission services over the national grid and in part from the requirements of the GPS.
- 179 The transmission price determination process sets out a process (or methodology) for determining the principles underlying the transmission price, and for accessing its application. This involves:
- the transmission provider proposing and publishing a pricing methodology;
 - the transmission provider receiving and having regard to comments from interested market participants on that proposed methodology;
 - the proposed methodology (perhaps modified as a result of industry comment) then being put to the Industry EGB for comment;
 - once settled, the methodology being assessed by the Industry EGB against the relevant standards in the proposed rules; and
 - once completely finalised, the methodology’s application being independently audited (after that, users are not able to challenge the validity of the methodology.)

⁴⁷ Above n 1, Appendix B, paragraph 8.4.

- 180 In short, the transmission price determination process provides for industry consultation, independent assessment against specified criteria, and an independent audit.
- 181 The Commission agrees with the Applicant that the national grid is a facility commonly regarded as a natural monopoly. The national grid's owner, Transpower, has a substantial degree of market power in the national electricity transmission market. Under s 36 of the Act, Transpower must not take advantage of that power for anti-competitive purposes.
- 182 The Commission notes that when the electricity market was reformed and deregulated Transpower spent a great deal of resources in developing what it considered to be an economically appropriate pricing methodology. It took expert advice and consulted widely within the industry. Although some agreement was achieved, various parties challenged one or other aspect of Transpower's pricing, and at times litigation was required to resolve issues between the parties.
- 183 The transmission pricing methodology is the solution that the industry has adopted to solve this problem, albeit at the urging of the Government.
- 184 In *Telecom Corporation of New Zealand Limited v Clear Communications Limited*⁴⁸ the Privy Council accepted that if the owner of a facility (such as a natural monopoly), to which various users required access to compete in downstream markets, charged those users the same price for access (subject to any cost-based variations), those users would be free to compete in the downstream markets solely on the basis of their relative efficiencies in providing the contested service. There would be a "level playing field" in the downstream market(s).
- 185 In effect, s 36 requires a firm like Transpower to price access to its facility in a way that permits users to compete on the basis of their relative merits in the downstream market. Essentially this requires non-discriminatory pricing.
- 186 Inevitably users will want to challenge the level or composition of the access price given their commercial imperatives and the risk or likelihood that the price will contain monopoly rents etc. If the facility's owner attempts to meet users' legitimate concerns by consulting them (for example) in the process of determining prices, or subjecting its pricing principles to independent review, or allowing independent audits of the implementation of its pricing, it may be going beyond the obligations imposed by s 36, but it is plainly attempting to act as a good corporate citizen.
- 187 In principle, the Commission agrees that it seems counter-intuitive that such conduct should then be classified as price fixing prohibited by s 30.
- 188 The Commission determines that it is not possible, in such a case, to say that the various steps taken by a facility's owner have the "purpose" of fixing price, nor do they have that effect. They simply seek to achieve agreement on the principles on which pricing is based and to give confidence that those principles are, broadly speaking, implemented.

⁴⁸ [1995] 1 NZLR 385 (PC).

189 The Commission determines that a process such as that contemplated by the transmission price determination process does not fall within s 30 of the Act, as it does not have the purpose, effect or likely effect, of fixing, controlling or maintaining the price of goods or services or providing for the fixing, controlling, or maintaining of the price of goods or services supplied or acquired by parties who are in competition with each other.

Cost Allocation Procedure

190 The Rulebook provides for the allocation of the various costs associated with the establishment and continued operation of the market. In general, costs are allocated on a “user pays” basis, but in respect of some costs, allocations have other bases.

191 In its Application, the Applicant submitted that the cost allocation provisions (in particular, the method of allocating common quality costs) did not contravene s 30 of the Act.

192 The Commission considers that the cost allocation procedure does not fall within s 30 of the act for two reasons, namely:

- the Arrangement is not primarily between suppliers, or between acquirers but rather, it is primarily an arrangement between the industry as a whole for a service being provided to the industry; and
- quite apart from facilities (such as natural monopolies), there are many situations where purchase or cost-sharing arrangements are made between competitors (who are not in competition for services being provided) but which, on a broad interpretation, could fall within s 30.

193 The Commission considers that there is no artificial constraint on, or interference with, a price formed in response to competitive pressure. Arrangements, such as the cost allocation procedure, are essential if access to a natural monopoly is to be granted, and that all parties – suppliers and purchasers – have agreed to them.

Conclusion – Section 30

194 The Commission considers that the words “fixing, controlling or maintaining” in s 30 (as previously adopted by the Commission) should be interpreted in the light of their context, including the purpose of the Act. This approach is consistent with the Commission’s approach in Decision 280 and the *Insurance Council* decision. This approach has not been affected by subsequent Court decisions.

195 Applying that approach, the Commission considers that neither:

- the wholesale price determination process;
- the transmission price determination process; nor
- the cost allocation procedure,

provisions of the Rulebook fall within s 30 of the Act, as they do not have the purpose, effect or likely effect, of fixing, controlling or maintaining the price of goods or services or provide for the fixing, controlling, or maintaining of the price of goods or services supplied or acquired by parties who are in competition with each other.

196 The Commission does not consider it necessary to address submissions received on the application of s 33 of the Act or the issue of consistency with previous Commission decisions.

197 The Commission is satisfied that the pricing for Rulebook services to non-members falls within the ambit of s 30, and hence entry into the Arrangement or the giving effect to the Provisions is deemed to substantially lessen competition. Given this, the Commission has jurisdiction under s 58 of the Act to consider whether the entering into of the Arrangement and the giving effect to the Provisions should be authorised under the Act.

198 The Applicant sought authorisation for entry into the Arrangement and the giving effect to the Provisions. The Commission has found that the pricing of services to non-members falls within s 30 of the Act. Pricing of services to non-members falls within the Comprehensive Coverage provisions, and the Price Determination provisions as set out in Schedules 1 and 2.

199 The Commission concludes that the pricing to non-members provisions alone provided it with jurisdiction under s58 of the Act. In the alternative, it considers that the Arrangement may lessen competition in other respects. The detriment from the lessening of competition is analysed in the consideration of public benefits and detriments below.

200 Having established it has the necessary jurisdiction, the Commission must go on to consider whether, in all the circumstances, the benefit to the public from the Arrangement would outweigh the lessening in competition that would result or be likely to result or is deemed to result therefrom. This requires the Commission to assess the quantum of benefits and detriments, which include the detriments arising from the lessening of competition. To undertake this task, the Commission must first determine the relevant markets affected, then determine the appropriate counterfactual, and then compare the Arrangement with the counterfactual to assess the likely benefits and detriments.

MARKET DEFINITION

201 Analysis of potential trade practices for the purpose of considering an application under Part V of the Act requires that the activities affected by the proposed practices are placed within market boundaries which most clearly highlight the competitive implications of the practices.

202 Section 3(1A) of the Act defines a market as:

... a market in New Zealand for goods or services as well as other goods or services that, as a matter of fact and commercial common sense, are substitutable for them.

203 For the purpose of competition analysis, a relevant market is the smallest space within which a hypothetical, profit-maximising, sole supplier of a good or service, not constrained by the threat of entry, could impose at least a small yet significant and non-transitory increase in price, assuming all other terms of sale remain constant (the ‘*ssnip* test’). For the purpose of determining relevant markets, the Commission will generally consider a *ssnip* to involve a five percent increase in price for a period of one year.

204 However, market boundaries should be drawn by reference to the conduct at issue, the terms of the relevant section and the policy of the statute.⁴⁹ A market definition so wide that it would thwart the provisions of the Act should not be used. Moreover, the process of defining markets is inevitably an imprecise one, since transactions in the economy do not fall neatly into a series of discrete and easily observable markets. In any case, it may not often be necessary – nor practical – to identify the precise boundaries of the activities included in the market.

205 In the Court of Appeal decision on *Port Nelson* delivered by Gault J, the following statement was made regarding the identification of a market:⁵⁰

Generally a market will be identified by reference to the activities of those engaged in commerce, the structures underlying their activities and the perceived susceptibility to change in the medium-term future. In other words what competitors are doing or might reasonably be expected to do indicates the market in which they are participants.

206 Gault J cited with approval from the judgement of French J sitting in the Full Court of the Federal Court of Australia in *Singapore Airlines*:⁵¹

...market designation... involves a choice of the relevant range of activity by reference to economic and commercial realities and the policy of the statute. To the extent that it must serve statutory policy, the identification will be evaluative and purposive as well as descriptive.

...It is a focusing process and the Court must select what emerges as the clearest picture of the relevant competitive process in the light of commercial reality and the purposes of the law.

207 The concept of a market is thus considered to be an instrumental one, in which the exercise of defining the market is not an end in itself, but is to be regarded as a

⁴⁹ *Telecom Corporation of New Zealand Limited v Commerce Commission* (1991) 4 TCLR 473, 499-500.

⁵⁰ *Port Nelson Limited v Commerce Commission* [1996] 3 NZLR 554, 560.

⁵¹ *Singapore Airlines Limited v Taprobane Tours WA Pty Limited* (1992) 14 ATPR 41-159, 40,170 and 40,172.

purposive exercise intended to cast light on, or to assist with the analysis of, the conduct at issue.

The Applicant's Market Definition

- 208 The Applicant submitted that the relevant product market was that for electricity, and that the relevant functional markets were:
- the wholesale market for electricity, which includes the generation and purchase of electricity;
 - the market for the transmission and distribution of electricity;
 - the retail market for electricity;
 - the market for the provision of ancillary services, including instantaneous reserve, frequency control reserves, over-frequency arming, voltage support, and black start; and
 - the market for the provision of other services, including those for market administration, pricing, clearing, system operator, reconciliation, registry and meter services.
- 209 The Applicant also submitted that, for the most part, the markets should be treated as nation-wide.

The View of Other Parties

- 210 In the main, those making submissions to the Commission accepted that the markets defined by the Applicant provided appropriate frameworks for the issues arising from the current Application to be considered. However, TrustPower expressed reservations about characterising the markets as being generally national in nature.⁵² Also, the Sustainable Energy Forum ("the SEF") suggested that "at the retail level electricity is eminently substitutable by many other resources, which we term "distributed resources".⁵³ It considers that a relevant market for this determination is the market for energy services at the retail level.

The Commission's Definition of the Markets

- 211 As noted above, when defining markets the Commission aims to place the activities affected by the proposed practices within market boundaries which most clearly highlight the competitive implications of the practices. In this instance the Commission is of the view that the markets proposed by the Applicant, with a small adjustment to include other services as set out below, achieve this aim.

⁵² TrustPower (NZ) Limited, Submission to Commerce Commission on the Draft Determination, 22 May 2002.

⁵³ Sustainable Energy Forum, Submission to Commerce Commission on the Draft Determination, 22 May 2002.

- 212 Nevertheless there can be special features in individual markets, such as the impact of distributed resources on the retail market, which may need to be recognised when considering the impact of the Arrangement. The Commission is confident that it has been able to do this within the market definition framework it has adopted.
- 213 The markets adopted in this instance are considered appropriate for the analysis of the particular Application before the Commission. They are not necessarily the markets which the Commission will use in all cases involving the electricity sector. As indicated above, the Commission will continue to define markets in a way which provides the clearest picture of the relevant competitive process for each case in the light of commercial reality and the purposes of the law.

Summary of Market Definition

- 214 The Commission considers that the relevant product and functional markets are:
- the wholesale market for electricity, which includes the generation, sale and purchase of electricity;
 - the market for the transmission of electricity;
 - the markets for the distribution of electricity;
 - the retail market for electricity;
 - the market for the provision of ancillary services, including instantaneous reserve, frequency control reserves, over-frequency arming, voltage support, and black start; and
 - the market for other services, including administrative services, pricing services, clearing services, system operator services, regulatory services, meter services and information services.

THE COUNTERFACTUAL

The Commission's Approach to Choosing a Counterfactual

- 215 The Commission has stated in previous decisions, in carrying out an assessment of an application under s 58 of the Act, it is necessary to compare the likely competitive effects of the arrangements in question, and the public benefits and detriments likely to result from the arrangement with those that arise in the "counterfactual".⁵⁴ The Commission makes a "with" and "without" comparison rather than a "before" and "after" comparison.

⁵⁴ Above n 17.

216 The counterfactual is not necessarily an arrangement which might be preferred by the Commission or by particular groups or individuals in the industry. The counterfactual is simply the Commission's pragmatic and commercial assessment of what is likely to occur in the absence of the Arrangement.

The Applicant's Suggested Counterfactual

217 The Applicant has set out in the amended Application its view on the appropriate counterfactual. In addition, the Murray and Hansen paper⁵⁵ submitted with the Application expands on the reasons for choosing this counterfactual.

218 The Applicant has stated:

The Applicant considers that the most likely alternative scenario, should the Arrangement not become operational, is that the Government will regulate to provide rules for competition in the electricity industry under the Electricity Amendment Act 2001. The Government would establish the Crown EGB, which would recommend to the Minister the current Rulebook as the basis for appropriate rules for the industry, with the exception of consequential modifications to the governance arrangements in Part A.⁵⁶

219 The Applicant has pointed out that the EAA provides for the Minister to recommend an Order in Council to establish the Crown EGB, albeit after a consultation process which could last between three and six months (and possibly up to 12 months). Further, the Minister has frequently stated his intentions to establish a Crown EGB if industry parties do not put in place a satisfactory arrangement.

220 In response to submissions from the Major Electricity Users' Group ("MEUG") and the Consumer Coalition on Energy ("CC93") that there was still time and opportunity for a different set of arrangements to be put in place, the Applicant argued that the Arrangement represented the strongest compromise that could be achieved and that that there was no reason to believe that a different arrangement, consistent with the GPS, was achievable. Further it stated at the Conference:

There is no reason, in our view, to believe that the Government would allow the industry an extensive extra time that the alternative counterfactual assumes. The GPS itself requires the industry to move quickly to put in place the new governance structure. The GPS also provides that in the event of insufficient progress, the Government will regulate under Part 15 Subpart 1 of the Act which is provided for already. The process has obviously been underway for 18 months. The Minister's been reported as saying that progress has been slower than he'd like and there is still a process to go through even if and after authorisation.⁵⁷

221 A summary of the Applicant's description of the counterfactual is as follows:

- the Governor General, on the recommendation of the Minister, would make regulations to establish the Crown EGB, and then make regulations or rules for the industry;

⁵⁵ Murray, K and Hansen, E., "Assessment of Proposed Arrangement for Self-Governance of the New Zealand Electricity Industry", 5 December 2001.

⁵⁶ See para 17.23 of the Application.

⁵⁷ EGBL Conference transcript, EGBL, 12 June 2002, 33.

- the principal objective of the Crown EGB would be to ensure that electricity is generated, conveyed and supplied to all classes of consumer in an efficient, fair, reliable and environmentally sustainable manner (i.e. the principal objective as set out in the EAA);
- the principles of the GPS would become the Guiding Principles;
- the Crown EGB would have the power to recommend regulations and rules to the Government, and would establish and operate markets for industry participants, including developing best practice distribution pricing methodology and other standards and agreements;
- the regulations would likely establish a compulsory market arrangement;
- regulations and rules would be introduced by the Government to provide for the establishment and operation of wholesale markets for electricity, including:
 - (a) pricing and determining quantities of electricity for market transactions;
 - (b) clearing, settling, and reconciling market transactions;
 - (c) scheduling and dispatching electricity;
 - (d) disclosure of market information;
 - (e) minimum prudential standards for market participation; and
 - (f) minimum standards of market conduct; and
 - (g) the Crown EGB would adopt the operational parts of the Arrangement (Parts C - I) as the initial operational rules.
- the Crown would adopt substantively the operational rules as designed in the Arrangement; and
- a working group structure similar to that under the Arrangement would be established.

Views of Other Submitters

- 222 Many submitters agreed that a Crown EGB was the appropriate counterfactual, although their characterisations of the Crown EGB varied considerably. Those who suggested the adoption of a counterfactual which was clearly different from that proposed by the Applicant included the SEF, MEUG and Todd.
- 223 The SEF provided a detailed scenario for a counterfactual, commencing with a Crown EGB with the GPS embodied in the Guiding Principles of the Rulebook, and suggested outcomes for the next 11 years including the introduction of new technologies which enhance efficiency and conservation.
- 224 MEUG submitted that the appropriate counterfactual was a set of arrangements which enhanced consumer welfare to a greater extent than the Arrangements. It suggested that this would not necessarily mean the establishment of a Crown EGB.

- 225 Todd submitted that if the Commission did not authorise the Arrangement, changes would be made which addressed the factors which caused the Commission to decline to authorise. Accordingly it suggested that a set of arrangements based on the Arrangement but which excluded those elements which the Commission considered unsatisfactory should be the counterfactual.

The Governing Body in the Counterfactual

- 226 As discussed above, the Commission in selecting a counterfactual must determine what is the most likely alternative to the Arrangements, not the arrangement which it, or others, might prefer.
- 227 It is the view of the Commission that the position of the Government is central to the choice of any counterfactual. The Government has important influence through its substantial ownership stake in the industry. Parliament has also passed legislation which provides for a substantial level of government intervention in the industry. The Minister has stated the Government's strong intentions to use these powers if necessary, including to put in place the type of governance arrangement provided for in the EAA.
- 228 As detailed earlier, the primary initiative to establish a new governance structure came from the Government and followed its receipt of the Inquiry's report to the Minister in June 2000. The Government adopted most of the Inquiry's recommendations and incorporated them in the GPS which it released in December 2000 (subsequently slightly amended in February 2002), and which the Minister transmitted to the Commission under s 26 of the Act.
- 229 Subsequently the Minister has made a number of speeches in which he has urged the industry to implement the GPS measures. He noted in a speech to the Electricity Networks Association ("the ENA") on 29 October 2001 that:

The alternative arrangement is not the existing arrangement; it is regulation. If the EGEP approach fails to get industry support, I will have no option but to establish a Crown entity Electricity Governance Board and rules in a wide range of areas.

I believe that the contractual approach and industry self-governance have important advantages over regulation. Contractual arrangements are likely to be more flexible and responsive than a regulatory approach. It is quite likely to be cheaper.

Unlike the issue of low fixed charges, I am not signalling my patience is running out. There is plenty of hard work going on and plenty of goodwill. But I am gently reminding you that progress must continue. If the industry stalls, I will have to act, however reluctantly.

- 230 The Minister has continued to express his wish that the GPS measures be implemented quickly. The Commission has noted the view of the Ministry that it is likely that an industry-initiated alternative to the proposal in the Application would take a longer period to develop and implement than the Minister would find acceptable.

- 231 While the Minister has expressed a preference for industry self-governance, clearly he is not prepared to wait indefinitely for the industry to put the necessary structures in place. If the industry is not able to progress towards achieving self-governance within a reasonable timeframe, the Commission accepts that the Minister would adopt the regulatory approach.
- 232 The Arrangement currently before the Commission represents a major effort of the industry (or, at least, significant elements of it) to determine structures and rules for self governance. For the industry get this far has been a lengthy process. If the Arrangement was not to proceed, it is likely that a significant amount of additional time would be required for the industry to find alternative arrangements. The Commission considers that this additional time would be outside what the Minister would regard as a reasonable time-frame.
- 233 The Commission considers therefore that if the Arrangement did not proceed the Government would exercise its powers under the EAA to bring into effect a Crown EGB. This was also the most common view of those who made submissions on the Application.
- 234 Accordingly the Commission is of the view that in the absence of the Arrangement the most likely scenario is for a Crown EGB to be established under the provisions of the EAA. It has therefore adopted the Crown EGB as the counterfactual against which it has assessed the Application.
- 235 The relevant structural characteristics of the Crown EGB are considered below, along with comparisons with the structural characteristics of the Industry EGB.

Governance Structure in the Counterfactual

Guiding Principles

- 236 Section 172N of the EAA defines the principal objective which the Crown EGB must promote in performing its functions. It states:
- “The principal objective of EGB is to ensure that electricity is generated, conveyed, and supplied to all classes of consumers in an efficient, fair, reliable, and environmentally sustainable manner.”
- 237 The EAA requires the Minister to set objectives and outcomes that the Government wants an electricity governance organisation (i.e. either a Crown EGB or an Industry EGB) to pursue in relation to the governance of the electricity industry, and against which the organisation must report and be examined. These objectives and outcomes are contained in the GPS.
- 238 The Commission considers that a Crown EGB would be likely to base its guiding principles around the objectives and desired outcomes in the GPS. This also appeared to be the common position of the submitters at the Conference.

239 While the GPS is likely to be subject to change from time to time as the Governments' policy objectives for the electricity sector change, the Commission notes that the principal objective is contained in the EAA and would therefore not be likely to be changed frequently.

240 There would be some distinction between the guiding principles of a Crown EGB and that proposed for the Industry EGB. CC93, for instance, expressed concern about what it saw as the elimination from the Guiding Principles in the Rulebook of the concept of "electricity being delivered in an efficient, fair and environmentally sustainable manner to all classes of customers".

241 However, according to EGEC:

The proposed Guiding Principles have been developed through a rigorous working group process and the interaction with many stakeholders. In particular, they reflect discussions with officials, the Minister of Energy and Transpower. In Transpower's case, some issues remain to be resolved and it is intended that Transpower's views on the Guiding Principles will be further considered as part of the wider consultation process over the coming weeks.

For the new multilateral contract the Establishment Committee has gone further than the existing contracts and included a duty on the Electricity Governance Board (EGB) to actively promote outcomes that further the Guiding Principles. Thus the Guiding Principles will provide the Board with a mandate to pursue rules changes and market developments.

The Establishment Committee has adopted an approach that seeks to establish a clear set of enduring principles intended to guide the Board and members of the multilateral contract. At the same time the committee has also sought to meet Government expectations as expressed in the GPS. In reviewing the GPS the Establishment Committee has formed the view that some aspects are best addressed through actual rules, rather than in the Guiding Principles. In many cases the initial set of rules will address issues raised in the GPS. In some cases it will be more appropriate for the development of new rules to be overseen by the incoming Board.

In this combined manner, the Establishment Committee considers that the draft Guiding Principles will achieve the outcomes sought by the Government and outlined in the GPS.⁵⁸

242 Rule 1, section IV, Part A of the Rulebook contains procedures for altering rules contained in the Rulebook. The Industry EGB is required to review any proposal for a rule change notified to it (in accordance with the rules) within 20 business days and reject any proposal that is, in its view, vexatious, trivial or inconsistent with the Guiding Principles when taken as a whole.

243 The Applicant accepted that there was a difference between the Guiding Principles in the Rulebook and the GPS. However it argued that the GPS does not always use terms that are recognisable as principles that could be expressed into a legally binding contract. It suggested that while the Crown EGB would adopt the GPS initially, it would come to recognise their practical limitations for the purpose of articulating guiding principles. Accordingly the Applicant's adviser submitted that, over time, the

⁵⁸ Electricity Governance Establishment Project's Establishment Committee (EGEC), Appendix 1, "Comparison of Guiding Principles with Government's Government Policy Statement", June 2001.

Crown EGB or the Minister would look to change from the guiding principles in the GPS to those which are closer to the Guiding Principles adopted for the Rulebook⁵⁹.

- 244 The Commission does not consider that it is likely that the Guiding Principles of a Crown EGB, initially based on the GPS, would necessarily come to mirror those of the Rulebook. The GPS is a reflection of the goals which the Government of the day has for the electricity sector. Nevertheless as a Crown EGB, there would be a strong incentive for it to be seen as seeking to achieve Government policy goals. This can best be achieved if it continues to base its Guiding Principles on the GPS.
- 245 Despite the different wording which would be likely between the Guiding Principles for the proposal and for the counterfactual, the Commission considers that the practical effect of the difference would not be significant. The Guiding Principles in the Rulebook appear largely consistent with the GPS. In any event, the Industry EGB would operate in the knowledge that in terms of the EAA its performance is measured by the Auditor-General (“AG”) and the Parliamentary Commissioner for the Environment (“PCE”) against the GPS objectives and outcomes, and a failure to meet the objectives and outcomes puts the Industry EGB at risk.

Composition of the Board of the Crown EGB

- 246 In terms of the EAA, the responsibility for appointing members to the Board of a Crown EGB would lie with the Minister. When making appointments the Minister may only appoint a person who has the appropriate skills and experience to assist the Crown EGB to perform its functions. There is no statutory requirement for appointees to be independent.
- 247 This contrasts with the Arrangement whereby the directors are elected, with generators and purchasers holding one third of the votes, distributors and grid operators holding one third, and approved consumer representatives holding one third. Directors must collectively have the requisite skills and experience and be independent. The Board must review the list of candidates and consult with the Minister before determining whether the requirements for independence and range of skills are met.

Decision making

- 248 In the counterfactual the Crown EGB would make decisions on administrative matters but would not have the right to make decisions to amend rules and regulations. Section 172Z of the EAA reserves to the Minister the responsibility for making these decisions. The Minister would be obliged to have regard to recommendations from the Crown EGB when making these decisions in relation to rules and regulations. Section 172Y of the EAA provides that the Crown EGB must consult interested parties and the Minister before making any recommendation to the Minister on changes. If the Minister decided not to act on the recommendation of the Crown EGB, or to depart substantially from it, he or she must publish a notice in the *Gazette* stating his or her decision and explaining the reasons for it.

⁵⁹ Murray, K. and Hansen E., Submission to Commerce Commission on the Draft Determination, 22 May 2002, para 25.

- 249 The Crown EGB would be likely to use working groups in a way envisaged for the Industry EGB.
- 250 The Government, in its GPS, has indicated a clear preference for “industry solutions where possible”. The Commission considers that the Minister would recognise that the Crown EGB is much closer to the industry than him or her, and would rely substantially on the advice of the Crown EGB when making decisions. However, as noted above, the responsibility for the final decision would rest with the Minister.
- 251 In the Arrangement, decision making on matters affecting rules lies with members of the Rulebook, with voting rights allocated on a chapter by chapter basis. A proposal for changes in the rules would be made initially to the Industry EGB which would be obliged to determine whether the proposal would be in accord with the Guiding Principles. The EGB would then refer the proposal to a working group which the Industry EGB considers has the appropriate balance of interests and expertise for the proper assessment of the matter before it. If the working group recommends the proposal the EGB may then put the rule change to a vote.
- 252 The Industry EGB does not have the power to make a rule change recommendation itself (although it does have the power to reject the working group’s recommendation). This contrasts with the Crown EGB which does have the ability to make a recommendation to the Minister.

Appeal provisions

- 253 In the counterfactual, while the Minister would be the ultimate decision-maker on rules and regulations the Courts would, of course, be able to review a Minister’s decision where there were due process deficiencies. However the Commission considers that it would be unlikely that the affected parties would have the right to appeal decisions as such.
- 254 The Commission considers that it is likely that a Rulings Panel would be established in the counterfactual with many of the functions envisaged for the Rulings Panel under the Arrangement. It would be independent and multidisciplinary. It would conduct hearings into possible breaches of the rules, it would determine disputes and it would make rulings on the interpretation of the rules. However, unlike the situation with the Arrangement, the Rulings Panel in the counterfactual would not have the function of hearing appeals against proposed rule changes.

Influence of the Minister

- 255 At the Conference Dr Turner of Meridian, stated:

“We see the counterfactual under the legislation as [including] Ministerial directive powers which are, I think, under any political system, extraordinary and broad.”⁶⁰

- 256 The Commission accepts that it is likely that the role of the Minister in the counterfactual would be extensive and important.

⁶⁰ EGBL Conference transcript, Meridian Energy Limited, 20 June 2002, 88.

- 257 For instance, the Minister would set GPS objectives and outcomes, would appoint the Members to the Crown EGB, would have the power to remove directors, would be consulted by the Crown EGB in the rule development process, would be the ultimate decision-maker on rule changes and would have the power to direct the Crown EGB. While the Minister would face practical and legal constraints in carrying out those functions, the Commission considers that it is likely that he or she would have a substantial degree of influence over the direction and operation of the Crown EGB.
- 258 The Minister would likely also have an important influence on an Industry EGB. This would arise from, amongst other things, the Minister (or Government) determining GPS objectives and outcomes, and negotiating performance standards against which the Industry EGB would be assessed. A significant degree of influence could also arise from the Government's ownership interests in the electricity industry. The Government's underlying powers to legislate or regulate to achieve particular policy goals, and the past demonstration of a willingness to exercise these powers in respect of the electricity sector, would also make members of an Industry EGB cautious about taking the industry in directions contrary to that desired by the Minister.
- 259 Nevertheless, the Commission considers that the Minister's influence over the Crown EGB in the counterfactual would be more direct and more significant than it would be over an Industry EGB.

Membership

- 260 Paragraph 9 of the GPS states:

Compliance with the rules will be compulsory for generators, distributors, retailers, directly connected end-users and Transpower, to the extent that they are applicable to these parties, and to the extent necessary to give effect to Government policy in this Government Policy Statement.

- 261 The Commission accepts that it is critical to the integrity of any electricity governance arrangements that the arrangements apply to a substantial proportion, at least, of industry participants. If generators of significant size or distributors remained outside the arrangements grid security could be at risk. There would also be increased risk of free-riding occurring if some industry players did not join the arrangements. Accordingly, EGEC incorporated in the design of the Arrangement a number of measures designed to encourage comprehensive membership.
- 262 Transpower has argued that these measures would add costs but would not guarantee that common quality is maintained or that efficient new transmission investment would take place.
- 263 With the Arrangement, the extent of Rulebook membership is problematic. The Commission has noted the opposition expressed by many of those who made submissions to it, including Transpower. However it also notes that if the Arrangement is to be put into effect, a substantial majority of voters in a referendum must support the proposed Rulebook. In addition Transpower, as the system operator must provide confirmation to the EGB that it has confidence that the rules would be binding on sufficient members of the industry to have confidence in the effectiveness and integrity of the common quality rules.

- 264 If the Arrangement passes the referendum and the other hurdles and comes into effect, the Commission considers that any party outside the Rulebook would be at a cost disadvantage. The Commission has concluded that while there may be some who would choose to remain outside, it considers that non-membership would not be substantial in size, number or impact.
- 265 If membership were mandated by legislation or regulation, the risk of the arrangements not achieving their potential because of certain types of hold-out and free-riding would be removed. The Commission considers that in the counterfactual, the Minister would be likely to regulate to ensure mandatory membership and compliance with the arrangements.

Operational rules and regulations

- 266 The Commission considers that it is likely that the operational rules in the counterfactual would, initially, be the same as, or very similar to, the operational rules in the proposed Rulebook. However, over time differences in governance structures would likely lead to differences in rules. This was also the view of most submitters at the Conference.
- 267 In the main the operational rules in the Rulebook have been taken from MARIA, NZEM and MACQS, and do not raise competition or other policy concerns.
- 268 Nevertheless the Commission considers there are aspects of common quality, transport and trading which warrant separate consideration. These aspects are discussed below.

Common quality

- 269 The important difference between the Arrangement and the counterfactual in respect of common quality arises from the way changes in rules and standards would be determined. With the Arrangement, common quality standards are determined by the votes of generators, retailers, grid owners, distributors, retailers and voting customers. This is also the situation under the MACQS arrangements (which were authorised by the Commission in August 1999 (Decision No. 369)), although the voting power of consumers would be reduced under the Arrangement compared to the status quo.
- 270 With the counterfactual, the Minister would ultimately be responsible for determining common quality standards. It is likely that he or she would receive submissions from affected parties when performing this function. The Commission recognises that the Minister would likely obtain recommendations from the Crown EGB and may seek independent advice before reaching a decision.
- 271 When changes in rules and standards are proposed, the Crown EGB may call for votes from affected parties in much the same way as proposed with an Industry EGB, but the voting outcome would be indicative only, and not necessarily determinative of the final decision.

Transport

- 272 The Commission considers that the processes in Part F: Transport of the Rulebook would likely be adopted initially in the counterfactual. It considers that there would be general recognition that the industry can better determine appropriate service levels. Disputes would likely be resolved by the Crown EGB, or an arbitral tribunal appointed by it.
- 273 Transmission providers and transmission customers would likely be responsible for attempting to agree on necessary investments and the allocation of costs according to a confirmed pricing methodology. Voting processes on transmission investments would also be likely to be similar to those in the Arrangement, although there may be wider grounds for appeal of service changes than allowed under the Rulebook over time.
- 274 The process for determining transmission pricing methodologies would be likely to be similar to those in the Rulebook. The Crown EGB would likely be required by the EAA to ensure that Transpower's pricing methodology conforms to the relevant objectives and principles in the GPS. This function would also be a responsibility of the Industry EGB in the Arrangement.

Trading arrangements

- 275 The rules in the Rulebook (Parts G and H) relating to the electricity trading arrangements are substantially derived from the NZEM Rules and the Commission considers that it is likely that most would be adopted in the counterfactual.
- 276 The Commission has considered whether the counterfactual might increase the possibility for competition in some trading related services. Most trading related services appear to have natural monopoly characteristics as a result of, for instance, the presence of scale economies, and this would tend to exclude the possibility of competing providers in either scenario.
- 277 In respect of other trading related services, the Commission doubts whether there would be sufficient demand in either the Arrangement or the counterfactual for new providers of these services to be attracted into the market. The level of demand will depend to a significant extent on the number of market participants who do not join the Rulebook. With the Arrangement the Commission considers that this number would be very small, while in the counterfactual scenario the Commission considers the trading arrangements would be mandatory for all.
- 278 The Commission considers therefore that there would not be a material difference between the proposal and the counterfactual in respect of the contestability of trading related services.

Transition issues

- 279 The transition from the status quo to a Crown EGB would also require transitional provisions. The Commission has considered whether a Crown EGB would be likely to adopt similar provisions as those that are contained in the Arrangement.

- 280 The purpose of Part I of the Rulebook is, amongst other things, to define the implementation arrangements for the rules and the processes for transition from MACQS, MARIA and NZEM.
- 281 As set out in the amended Application, other transitional arrangements provided for in Part I include:
- provisions allowing for the continuance of the GSC as a working group of the Industry EGB for a six month period;
 - a clause providing a grace period for inadvertent breaches of rules where the rules have changed from those in existing codes;
 - fast-track approval procedures for service provider contracts;
 - a provision granting certain purchasers a transitional exemption from bid and offer requirements;
 - provisions relating to a “must run” dispatch auction derived from existing NZEM arrangements; and
 - provisions allowing generators and purchasers to apply for an exemption from full compliance with certain rules in Part G (for a period of 6 months).
- 282 It was apparent at the Conference that the proposed transitional dispensation arrangements in the Rulebook were not accepted by all. MEUG suggested that the transitional dispensation provisions treat existing generators more favourably than new entrants.⁶¹ It argued that whereas the costs incurred by the System Operator in procuring ancillary services to cover non-compliant plant given a dispensation are explicitly allocated to all participants connected to the grid, new entrants (who seek any form of dispensation from prescribed standards) are specifically obligated to pay for any and all costs that they impose on the System Operator. It suggested that it is arguable that this establishes a barrier to entry.
- 283 Although supportive of the concept of a transitional dispensation regime, Transpower has echoed MEUG’s concern that although incumbents get the benefit of the costs of the transitional dispensation being spread across all asset users a new entrant must bear the direct costs themselves, and has suggested that this is a discriminatory rule which could have an effect on new entry.⁶²
- 284 The Commission accepts that transitional arrangements would be a necessary feature of the Arrangement. Inappropriate transitional arrangements could be unfair or unreasonably disadvantage existing players on the one hand, or create an unreasonable entry barrier on the other. The correct balance would be difficult to achieve.

⁶¹ MEUG, Submission to Commerce Commission on the Draft Determination, 22 May 2002, 5.

⁶² EGBL Conference transcript, Transpower (NZ) Limited, 27 June 2002, 30.

285 The Commission considers it unlikely that the transitional arrangements in the counterfactual would be materially different from those proposed in Part I of the Rulebook. In any event, as Mr Sundakov, for Transpower, noted at the Conference:

“In this case we're probably talking about relatively small amounts. My understanding is that the cost of voltage support is a couple of million dollars a year, so the imposition from transitional dispensations may not be all that significant ...”⁶³

QUALITATIVE ASSESSMENT OF LIKELY DIFFERENCES IN OUTCOMES BETWEEN ARRANGEMENT AND COUNTERFACTUAL

286 The analysis of detriments and public benefits assesses the detriments arising from the lessening of competition resulting from the Arrangement as a whole. The analysis does not separately consider the lessening of competition deemed to result from the pricing to non-members. The Commission considers that the lessening of competition that gave rise to the detriments would have given the Commission jurisdiction over the Arrangement, notwithstanding the deemed lessening of competition resulting from the pricing to non-members.

287 The Commission suggested in the Draft Determination that a Crown EGB would initially adopt the operational rules in the Arrangement, but over time differences in the governance structure would likely lead to differences in rules. The Crown EGB would also have a wider ability to hear appeals on transmission investments in Part F, hence there would also likely be a difference in transmission investments.

288 Accordingly, the Commission assessed the benefits and detriments (including any detriments associated with any lessening of competition) of the Arrangement by considering the differences between the counterfactual and the Arrangement arising from:

- the influence of participants on decision-makers;
- the degree to which decision-makers are informed; and
- the competence of, and incentives facing, decision-makers.

289 Submissions from interested parties broadly agreed that the Commission had identified the correct basis for considering significant differences between the Arrangement and counterfactual.

290 However, a number of other issues were raised by interested parties in relationship to functional differences between the Arrangement and counterfactual. Transpower and MEUG also expressed concern that less than full membership would result in detriments arising from free-riding on the Part F arrangements, and an additional cost would be incurred as a result of having to come to the Commission to seek approval for potentially anti-competitive, but efficient rule changes. MEUG also suggested detriments arising under the counterfactual as a result of an inability to regulate for mandatory rules in some areas. Transpower and MEUG argued that the Commission

⁶³ EGBL Conference transcript, Transpower (NZ) Limited, 28 June 2002, 10.

should attribute detriments to the Arrangement arising from direct and indirect costs of non-membership.

291 The Commission has considered net public benefits (detriments) of the entry into the Arrangement and the giving effect to the Provisions under the following broad headings:

- quality of decision making; and
- transmission investment.

292 The impacts of non-membership are dealt with under these headings where relevant.

Quality of Decision Making

293 The Commission stated in its Draft Determination:

- that the GPS would have a strong degree of influence on both the Arrangement and the counterfactual, but the Crown EGB would give greater weight to the GPS particularly when prioritising rule developments. In contrast the Industry EGB would give greater priority to rule changes which are likely to have the greatest impact on efficiency, regardless of the source of rule change proposals;
- although the Crown EGB would be likely to use working groups to inform its decision making, industry decision making would be superior as the Crown EGB would not be expected to have the same depth of knowledge of the effects of a rule change as industry participants. Nevertheless, the Commission also recognised that self-interest would not necessarily align with the public interest, and that there was a significant risk that there would be strike down of pro-competitive and public benefit enhancing rules; and
- a Crown EGB would also be at risk that working group processes did not fully resolve issues and would remain susceptible to obfuscation by working group participants. The Board could find it difficult to penetrate complex information presented to it.

294 The Applicant argues that the Arrangement co-locates decision making with those who have the best information on the likely effects of rule changes and with votes allocated in proportion to the value of transactions at stake for each participant. On top of this is a detailed oversight role for the Industry EGB, Rulings Panel, PCE and AG and a means by which the Minister can influence the rule development process.

295 The Applicant states that the Arrangement is likely to facilitate outcomes in the public interest because:

- voters have interests that are often aligned with the public interest;
- there are sufficient checks and balances preventing anti-competitive rule changes;
- the industry will be accountable for achieving the GPS;

- the AG, PCE and Minister provide ongoing oversight of the Industry and provide an accountability mechanism through the threat that industry governance will revert to the Crown if the industry does not adhere to the GPS and specified outcomes/obligations;
- the rule-making process is driven by an independent body, which prioritises rule changes, makes appointments to working groups and monitors their progress;
- the rule-making process, including the outcomes from working groups and voting, is transparent; and
- the Rulings Panel provides oversight and may strike down rule changes that conflict with the Rulebook Guiding Principles and may put rule changes to resolution if the rule change would materially financially disadvantage a participant.

- 296 The Applicant considered that overall the Arrangement sets up a tension between different interest groups, with a system of checks and balances, which should lead to efficient rules being developed, and would be superior to the Crown EGB model.
- 297 The Applicant argued that the Crown EGB would be an inferior decision-maker, since it would be making decisions without the benefit of the superior knowledge of the industry. The Applicant also argued that the Minister faces a number of conflicts of interest as owner of a large portion of the industry, objective setter, rule maker and employer of the Crown EGB.
- 298 The Applicant also argued that the Crown EGB would likely be captured by Transpower, and make decisions reflecting Transpower's perspective; such decisions not necessarily being in the interests of overall efficiency. A Crown EGB would find it difficult to go against the views of Transpower, as expert on system security.
- 299 Opponents of the Application (such as CC93, MEUG and Transpower) considered that in some regards it is difficult to see a significant difference between the Arrangement and the counterfactual. However, there are a number of reasons why they consider that the checks and balances listed in paragraph 294 would be insufficient to prevent market failures:
- failure of the voting process to resolve externalities (ie. consumer and industry interests are not necessarily aligned);
 - ability of the generator/retailers to strike down pro-competitive and public benefit enhancing rules;
 - ability of the generator/retailers to push through anti-competitive rules;
 - high costs of non-membership; and
 - undue limitations on the appeal process in Part F.

- 300 Transpower's economic advisers, the New Zealand Institute of Economic Research ("NZIER"), argued that weak representation of consumers and new or potential entrants in voting rights would allow incumbents to block or delay competitive new entry. NZIER suggested that decision making quality would depend on competence, information quality, effectiveness in reaching resolution, as well as incentives of parties. In NZIER's view the arrangements would differ very little in respect of the first three qualities, but in respect of incentives, the Crown EGB would be superior in resolving issues in a manner that leads to efficient outcomes.
- 301 Given the complexity of the industry, NZIER considered that accountability mechanisms in the Arrangement would be insufficient to uncover covert anti-competitive action.
- 302 The following sections examine the Applicant's views on the characteristics of the Arrangement set out in paragraph 294.

Alignment of Industry and Public Interests

- 303 Generally, rules may be thought of as those affecting the costs of transacting and those affecting the distribution and level of value. Where rules determine the level of transaction costs, it is likely that both sides of the transaction have an interest in minimising these, since they are merely a cost.
- 304 Changes in rules that affect the level and distribution of value may result in winners and losers, and hence one side of the transaction will have an incentive to promote the rule change, whilst the other side would have an incentive to prevent it. Where a rule change unlocks value, an efficient outcome may be for the winners to compensate the losers, but overall a net welfare gain is achieved.
- 305 In a reasonably competitive retail market, retailers would have an interest in maximising opportunities to provide customers with value-added services, since they would have the potential to capture some of that value, albeit until additional returns are competed away. So, for example, a rule change that enhances demand-side participation in the wholesale electricity market could benefit both retailers and consumers. However, generators could well lose from such a rule change, as consumers reduce demand by reacting more rapidly to high prices.
- 306 As the Commission identified in its Draft Determination, competitive tension between retailers and generators appears muted by the high degree of vertical integration of these functions. The natural tendency for retailers to pursue lower entry barriers for new generation or greater demand-side participation, is likely to be more than offset by generators' desires to preserve their interests in long term generation assets, where a degree of market power is likely to be more enduring. Although there are longer term drivers on the industry to adopt technical innovations, over the short to medium term, the incentives are on incumbents to maximise the value of existing assets.

307 Finally, consumers are by and large uninformed over the price-quality tradeoffs in the provision of electricity. Furthermore, consumer interests are often represented in the voting process by retailers and distributors whose interests are not necessarily aligned with their own. Consumer group representatives and the Minister, as an advocate for the public interest, play important roles in providing some tension over the development of rules through the development of the GPS.

308 While the Commission recognises that although the short-term commercial interests of the industry will not always align with the public interest, it does note there are some natural drivers which create an incentive to allow pro-competitive and public benefit enhancing rule development:

- annual load growth puts pressure on the system to expand. With risks around the development of new gas supplies as the Maui field is depleted, and generators with large retail commitments provided under fixed price contracts, generators have an incentive to develop and introduce new technologies;
- there does not appear to be such commonality of interests among the major generators to prevent rule developments which would allow new technologies to enter. For instance, Genesis and TrustPower have interests in wind technology, with Genesis recently gaining regulatory approval to expand the Hau Nui windfarm;
- generators have widespread customer bases. All generators have retail interests spread across the country, eg. Genesis with solely a North Island generation base has large customers in the South Island. Similarly Meridian has significant retail interests in the North Island. Development of distributed generation technologies or demand-side management would mitigate localised market power, which would protect generators' retail arms. However, the Commission also notes that subsequent to winter 2001 the vigour of competition in the national retail market is more subdued. There have been a number of instances where generator-retailers have retrenched to competing in areas proximate to their own generation; and
- furthermore, erecting or maintaining barriers to entry is unlikely to be a sustainable long-term position. Electricity prices above long-run marginal costs over a sustained period would invite regulation, which may or may not be in an efficient form (eg. price regulation, mandatory hedges etc). As NZIER and Transpower noted:

NZIER

The problem is, when it goes spectacularly wrong, if the Government steps in at that stage, it's going to step in and overreact. When Governments respond to crises of this kind, it's unlikely to come in with a mild version of an industry EGB but it's much more likely to overreact.⁶⁴

⁶⁴ EGBL Conference transcript, Transpower (NZ) Limited, 25 June 2002, 45.

Transpower

After that, in every case I've seen, a Government moves in, doesn't matter about rules or anything else, they ignore economics and efficiencies and they overdo the inputs Inefficient investment I suppose you'd call it, and you can see it out of the 92 water shortage in New Zealand where the security standard was upped to about a one in 30 dry year from a 1 in 60, ... there's a reaction the other way. But every time a Government steps in.⁶⁵

- 309 Hence, in considering rule change proposals, the industry is likely to give some consideration to whether the position is sustainable and the value consequences of government over-reaction.
- 310 Overall, there are likely to be some instances where natural drivers will be insufficient to align generator-retailers or distributors interests with consumer interests, and hence give rise to market failures. The Commission considers that supply-side interests have an incentive to delay the timing of pro-competitive and public benefit enhancing rule development. Integrated generator-retailers face strong incentives to maximise the value of existing investments. There may also be a tendency to favour rule development which favours supply-side solutions rather than demand-side management. In cases where industry and consumer interests diverge, the costs of failure may be significant.

Impact of Self-Interest – the Arrangement

- 311 On balance, the Commission considers that the high degree of vertical integration in the industry and the low degree of demand-side influence means that supply-side representation of consumer interests is likely to be weak. Significant control of voting blocs by vertically integrated generator-retailers is likely to lead to blockage of some pro-competitive and public benefit enhancing rules. This could occur at either the working group level, through obfuscation, or through direct strike down where the nexus between the rule change and competitive outcomes is unclear.
- 312 The Commission notes that consumer groups at the Conference were united in their opposition to the proposed governance structure. It also notes that consumers are likely to be more vulnerable while Part B of the Rulebook remains incomplete. Although most consumer groups would prefer some form of industry self-governance structure to a Crown EGB (CC93 and MEUG), the continued dominance of voting by supply-side participants is of concern to them. The Commission notes that consumers voiced strong concern that their presence on EGEC had been almost totally disregarded by supply-side interests. While the Commission recognises that there is always an incentive on parties to adopt strategic positions in the hope of gaining support for their preferred option, the Commission considers that the extent of consumer opposition to the Arrangement is a reflection of real concern.

⁶⁵ EGBL Conference transcript, Transpower (NZ) Limited, 28 June 2002, 12.

Impact of Self-Interest – Counterfactual

- 313 The decision making structure under the Crown EGB is very different to the structure under the Arrangement, utilising an entirely different set of processes and checks and balances. In contrast to the Arrangement, the Minister and Crown EGB play a central role in the decision making process, rather than acting as oversight bodies. The industry's formal role is limited to advancing rule change proposals to the Crown EGB and providing advice/advisers to working groups. There is also likely to be a degree of formal and informal lobbying of the Minister and Crown EGB.
- 314 The Applicant views the counterfactual model as the Crown EGB being entirely subservient to the Minister. It suggests the Crown EGB may be more risk averse in making rule changes, especially where rule changes have an impact on system security. It may be susceptible to lobbying from Transpower, or simply give more weight to Transpower's advice as expert on system security. There are few checks on Ministerial power in the Crown EGB model, and the Minister has a conflict of interest in ownership of the industry, as well as deciding the rules by which those same entities must operate. Finally, the Applicant stated "the degree of independence of the Crown EGB would be determined by the preference of the Minister of the day."⁶⁶
- 315 In arguing that the Crown EGB will be subject to capture by Transpower, Murray and Hansen suggest a Crown EGB would find it difficult to go against the advice of the system operator/transmission owner as an expert on system security. Transpower may have a natural proclivity to provide advice that reflects its knowledge of system security matters as they relate to transmission investment. It notes Transpower's position on MACQS:

While Transpower has experience in deciding what needs to be done in order to provide a secure grid, it does not have the best information with regard to the particular value that individual Grid users attach to different levels of quality. Grid users are more aware of their own interests than other parties because quality of electricity supply affects grid users more directly than it affects Transpower. Grid users are in a better position to evaluate the costs and benefits of different levels of quality.⁶⁷

- 316 The Applicant argues that there is inherently an advantage of industry voting over a Crown EGB:

...the Crown EGB would lose the important scrutiny achieved through industry votes to ensure that the specific rule change is the most efficient method of achieving a given objective. Such assessments involve informed judgements about uncertain benefits and costs. These judgements require specific and idiosyncratic knowledge of the circumstances and plans of individual participants, and this information is not available to a central entity.⁶⁸

- 317 In contrast, Transpower views the Crown EGB as superior to the Industry EGB model because the Crown EGB would be the decision-maker, with the Minister acting on recommendations by the Crown EGB. The Crown EGB would be an expert body, driven by the public interest and capable of managing working group processes to

⁶⁶ EGBL Conference transcript, June 2002, Applicant's Conference Notes For Reply, 18.

⁶⁷ Transpower (NZ) Limited, Application to Commerce Commission for authorisation of restrictive trade practice, May 1999, 15–17.

⁶⁸ EGBL Conference transcript, June 2002, Applicant's Conference Notes for Reply, 18.

avoid capture by the industry. Transpower suggests where rule developments have a pro-competitive and public benefit enhancing element, the Crown EGB would appoint independent experts to the working group, and/or seek external advice to reduce the chance of the public interest being frustrated by industry self-interest.

- 318 MEUG and NZIER also argued that self-interested industry voting would not take into account the wider national impact of rule changes, whereas a Crown EGB would more likely take a more active part in understanding and representing the public interest in considering rule changes.

...I think [the Rulebook] does go certainly some way to resolving externalities, but not all the way, and the critical problem to my mind, and the problem that doesn't even get addressed in the application, is the externalities that get imposed on outsiders to the club, externalities that get imposed on consumers or on new entrants.⁶⁹

- 319 NZIER and Transpower suggest that the Murray and Hansen report overstates the effect that Transpower would have on rule development. First, they argue that Murray and Hansen assumes that generator-retailers would not be able to counter-balance Transpower's influence (although NZIER also notes that on occasion Transpower and generator-retailers would have commercial incentives that jointly conflict with consumer interest). Second, for Murray and Hansen's conclusion that Transpower's advice would have the effect of striking down pro-competitive and public benefit enhancing rule development, the following conditions must hold:

- Transpower must have an incentive to promote system security over and above the value of that security to the national interest. The national interest goes beyond the value only to the rest of the electricity industry;
- Competition must come largely from greater diversity and differentiation. The pro-competitive effects of uniform standards (which provide a level playing field) must be negligible.
- System security must decline with increased diversity and differentiation among generators.

In our view, the above conditions do not generally hold in the New Zealand electricity market:

- First, it is important not to confuse Transpower's strong advocacy of system security with the promotion of an inefficient level of security or transmission investment. Rather, Transpower faces an environment where individual generators have a powerful incentive to free-ride on others in providing system security. Hence as a group, generator retailers are likely to advocate too little investment in security. To a degree Transpower is likely to be counter-balancing that bias.
- Second, there is no reason to expect that Transpower would value system security more than the customers. There is no financial incentive for Transpower to increase system security or enhance the uniformity of standards for their own sakes – Transpower's returns are not related to the rules on those matters. Rather, Transpower is likely to be trading off two political pressures: the risk of being blamed if system security is compromised and the risk of being attacked for not allowing the entry of alternative technologies. It is also unlikely that integrated generator retailers fully represent the interests that end use customers have in security.
- Third, it is unlikely that the focus on system security would provide Transpower with a consistent bias against diversity and differentiation. Diversity of generation processes may, in fact, increase system security spreading risks. Again, the trade-off in each case is likely to be quite specific to the risk factors present in various technologies and practices.

⁶⁹ EGBL Conference transcript, Transpower (NZ) Limited, 25 June 2002, 33.

- Fourthly, uniformity of standards and security requirements can be pro-competitive. In particular, differential security standards are more likely to favour incumbent generators relative to new entrants, due to the influence they can exercise in the standard setting process. “Transitional dispensations” granted under the Arrangement are a good example of this.

....

We think it is wrong to suggest that the main tension affecting competition is between the transmission provider and generator retailers. In our view the main tension affecting competition in the market for electricity generation is between the incumbent generator- retailers and new entrants/consumers. The Crown EGB seems better placed to resolve this tension than the Industry EGB.⁷⁰

- 320 MEUG also rejected the Applicant’s assertion that Transpower’s involvement in the Crown EGB would be detrimental to efficiency. MEUG noted that Transpower had been more active in promoting pro-competitive and public benefit enhancing market designs than suppliers, citing financial transmission rights (“FTRs”), the original nodal pricing model, and ex post five minute pricing as examples.
- 321 In considering these views the Commission has considered the role the Minister fulfils in the counterfactual:
- first, the Minister represents a number of ownership interests in the industry, controlling roughly three quarters of generator-retailers and all of the transmission interest;
 - second, the Minister as a Member of the Government is involved in setting the Government Policy Statement;
 - third, the Minister has the discretion to direct the Crown EGB to recommend rule changes that reflect the GPS or other government policy;
 - fourth, the Minister appoints and monitors the Crown EGB, and has the discretion to remove any Member;
 - fifth, the Minister must be consulted with over potential rule changes prior to any recommendation; and
 - finally, the Minister makes the ultimate decision on rule changes, (but must disclose reasons for departing from a recommendation).
- 322 Hence, in the counterfactual the Minister would have the power to exercise a strong degree of control over the development of industry rules, and would likely exercise such power. Given that the Minister would be the decision-maker on rules for the industry, he or she may be seen as responsible in the public’s mind for industry outcomes. This may drive the Minister to be risk averse in decision making. For instance, in areas where security may be traded off for greater competition, the Minister is likely to favour solutions that ensure reliability, as the costs of less competition may be spread thinly over all consumers. This would be less risky than lower reliability of supply which may manifest as outages for which the Minister as final decision-maker is ultimately responsible. The priorities of the Crown EGB are

⁷⁰ NZIER (2002) *Electricity Governance Board: Analysis of LECG report*, 1-4.

likely to reflect those of the Crown, since it is wholly accountable to it for achieving the GPS objectives and outcomes.

- 323 The Commission considers that Murray and Hansen have overstated the information disadvantage of a Crown EGB and have assumed that voting processes take account of externalities. Voting parties may know their own costs and benefits, but not necessarily the impact on those parties without votes, but indirectly affected by the rule change. Primary responsibility for developing efficient rules under the Crown EGB would likely lie with working groups, who would be comprised of interested parties, and would have to consult with all affected parties. Hence, the information required to develop efficient rules is likely to be revealed to the Crown EGB through working group processes. Whilst a Crown EGB would remain at some risk of obfuscation by participants in working group processes, the Commission considers that the Crown EGB is more likely to appoint external experts to working groups and seek its own external advisers when considering working group recommendations.
- 324 Whilst the Commission acknowledges that the Crown EGB would not necessarily be at an information disadvantage it also considers that a number of rule change proposals are complex with uncertain costs and benefits. By co-locating decision making with those directly affected by a rule change, decision quality can be expected to be superior, except in those instances where commercial interests diverge from public interests. The Commission also considers that in some cases separation of the Government from day-to-day decision making is likely to confer a benefit. While industry participants can focus on operational efficiency considerations, government decision making would likely balance longer term efficiency considerations with short-term costs and benefits. As detailed earlier, the Minister has implicitly recognised in his speech to the ENA Conference that greater separation of decision making from the political process is likely to confer a benefit.
- 325 On balance, the Commission considers that the Crown EGB decision making is likely to be superior in advancing pro-competitive and public benefit enhancing rules, but would likely lose an important benefit that can stem from co-location of decision-rights with those most closely affected by a rule change.

Contestability of market services

- 326 In the Draft Determination the Commission noted a specific risk relating to decision-making quality in regard to contestability of market services. It was uncertain at that time whether there would be greater potential in the counterfactual for competition to develop in the provision of such services as administration, pricing and clearing. The Commission also sought comment in its view at that time that there was greater potential for the system operator role to be contestable under the Arrangement.
- 327 Murray and Hansen suggested a number of reasons a Crown EGB would not allow services to be made contestable, including:
- an inability to specify complete contracts and hence a risk that it may have to compensate a service provider if contracts need to be rewritten;

- a wish to make more informed decisions by co-locating sources of information with its decision making powers; and
- in the case of the system operator role, a desire to establish a close, long-term relationship to enable the Board to gain a greater understanding of the transport function. This would provide it with a more informed basis on which to make transmission investment decisions.⁷¹

328 The Commission recognises that these risks may exist, but on the other hand, the industry is likely to place strong pressure on a Crown EGB to recommend rules that allow for contestable service provision. Furthermore, the current GPS specifies that:

The Governance Board should be responsible for determining the services to be provided to the market, which should be contestable wherever possible.⁷²

The new governance framework should not preclude the establishment of any competing arrangements consistent with unified security constrained dispatch and consistent with this Government Policy Statement and the Guiding Principles.

329 The Commission is of the view that the risks of non-contestability for service provider roles other than the system operator are low. As a result it is unlikely that there would be a material difference between the Arrangement and the counterfactual in regard to contestability of clearing and settlement, reconciliation and other market service roles except for the system operator.

330 Following the release of the Draft Determination in which the Commission raised the possibility of reduced competition for the supply of these services in the Arrangement, the Applicant proffered a condition extending the exemptions from full compliance to sections IV (pricing) and V (reconciliation), of the Part G – Trading arrangements, and Part H, Clearing and Settlement rules.

331 However, in view of the Commission’s conclusion that there would not be a material difference in this respect between the Arrangement and the counterfactual, the Commission also concludes that the issue is not of such significance that the imposition of a condition is desirable. Should alternative arrangements become feasible in these areas, the Commission considers that the industry would move quickly to allow competition, since it would offer an ability to reduce transaction costs.

332 In respect of the system operator role, Transpower, NZIER, and MEUG argued that under both the Arrangement and counterfactual the Minister would ultimately decide whether or not to make the role contestable, so there is little practical difference between the Arrangement and counterfactual.

333 The Commission considers that the incentives on the Crown EGB and Minister in the counterfactual to make the system operator role contestable are weaker than in the Arrangement. The Minister as final decision-maker in the Crown EGB would more acutely bear the risks of making the decision to make the system operator role contestable, and hence, would be less inclined to favour the decision.

⁷¹ Above n 55.

⁷² Government Policy Statement, December 2000, paras 12-13.

Checks and Balances on Anti-Competitive Rule Development

- 334 The Draft Determination listed seven reasons why it would be difficult for anti-competitive rules to be introduced:
- the requirement of the Industry EGB to meet the Guiding Principles including that of fostering competition and compliance with the Act;
 - the requirement for those appointed to the Industry EGB to be independent;
 - the role of the Rulings Panel and its independent constitution;
 - the ability of any person whomsoever to propose rule changes;
 - the role of the working groups when considering rule changes;
 - the transparency of the decision making and rule changing process; and
 - the overview roles of the AG, PCE, Commission, and Parliament.
- 335 Transpower suggested that some of these checks would be inadequate:
- the Guiding Principles are incapable of providing sufficient check;
 - the Rulings Panel and Board are not sufficiently independent;
 - the AG and PCE would not have a monitoring role that takes into account competition effects; and
 - the Commission does not have the capacity to monitor the competitive effects of rule changes.
- 336 The Commission considers that Transpower overstates the limitations of the various institutional constraints on anti-competitive rule changes. There are numerous parties intimately involved in the rule-making process, which have the incentive and ability to detect anti-competitive rule changes and use appeal processes to notify each of the oversight bodies. It is unlikely that there would be such a systematic failure of multiple oversight bodies.
- 337 Overall, the Commission does not consider that anti-competitive rule changes are likely under the Arrangement or counterfactual.

Role of the GPS

- 338 The Minister may specify objectives and outcomes in the GPS which the Government would like the industry to achieve. At the commencement of each reporting year the Industry EGB must agree performance standards and targets with the Minister. The Applicant suggests that this will make the industry accountable for achieving those aims. Transpower, in contrast, suggests that the PCE and AG are likely to examine the Industry EGB's performance only with regard to processes, eg. rules reflecting GPS objectives and outcomes put to industry vote. Transpower argues that, as non-expert, bodies the PCE and AG are unlikely to be able to judge the performance of the industry against the GPS targets.
- 339 The Commission considers that Ministerial oversight, informed by officials and other advisers, would be sufficiently competent to identify strategic areas for rule development. The Commission also considers that the PCE and AG are sufficiently competent and can acquire necessary expertise to inform judgements against the requirements of the GPS.
- 340 Transpower suggests that there is no point in making the Industry EGB accountable for achieving the GPS, because they do not have the decision-rights. While the Commission notes that the Industry EGB is not the final decision-maker, the accountability mechanism is to strip the industry of its decision making powers, rather than sanction of the Industry EGB members. In a sense, the Industry EGB acts as an intermediary, conveying Government's expectations to the industry and explaining what is required to achieve compliance with the GPS objectives and outcomes. Failure of the Industry to achieve the GPS objectives and outcomes would likely invite regulation.
- 341 The Applicant argues that the threat of regulation is likely to impose a discipline on the industry, whilst opponents argue that there may be a large degree of brinkmanship before the Minister instigates a Crown EGB. NZIER likened this brinkmanship to the effect of a nuclear deterrent.
- 342 While it is true the transition to a Crown EGB would not be costless, the comparison to nuclear deterrent does seem to overstate the effect of the threat. In general, the industry would not know the point where the Minister would enforce the threat. Successive energy Ministers would have a different assessment of the costs and benefits of Crown intervention relative to industry self-governance. Nevertheless, the Commission considers that the threshold for extinguishing industry self-governance provides some scope for the industry to strike-down pro-competitive and public benefit enhancing rules.

Oversight and Transparency of the Rule-Making Process

- 343 The Applicant also argued that all working group minutes, reports and votes are publicly available under the Arrangement. Working groups are appointed by the Industry EGB, which monitors their progress in developing the rules. It has the power to appoint new working groups if it is not satisfied that sufficient progress is being made. Given the industry would be measured against achievement of the GPS, it is likely that the Industry EGB would take an active interest in working group

performance. Hence, the potential for use of delaying tactics by parties with an interest in defeating a rule change would be reduced.

- 344 Transparency of the rule-making process will also assist in identifying particular rule changes where particular industry interests vote *en masse* to strike down a rule change. This would naturally invite an interest in the reasons for strike down. Nevertheless, on complex rules, blocking and delay through working group processes would likely be possible. The difficulty in identifying reasons for slow development of FTRs, demand-side bidding and offer disclosure is illustrative that transparency in itself does not necessarily overcome the risk of pro-competitive blocking.

Conclusion: Overall Quality of Decision Making

- 345 The Commission considers that despite the checks and balances, the Arrangement allows a significant risk of strike down of pro-competitive and public benefit enhancing rules, that a Crown EGB would be likely to resolve.
- 346 In either arrangement the Commission considers that the potential for development of anti-competitive rules is low.
- 347 In the counterfactual, the Crown EGB/Ministerial decision making would lose an important benefit of co-location of decision making with industry participants, and separation of final decision making from the political process.

TRANSMISSION INVESTMENT

Introduction

- 348 There was widespread agreement that Part F of the Rulebook was a significant step forward in resolving transmission investment problems, and that it would likely form part of the counterfactual, although some parties were concerned with aspects of its formulation.

MEUG:

...the Part F process has generally been perceived by major users as a positive outcome, one of the most positive outcomes of the process that we've been engaged in.⁷³

Meridian Energy:

Meridian Energy is generally supportive of Part F but we do have a number of important qualifications. We accept that there is a need to consider what services customers are currently getting and what services customers want, and we recognise that there has already been considerable value extracted within the industry in the Working Group process working on transmission service definitions and measures, which is a fundamental part of Section 1 of Part F. We clearly see there's a need for investment in the grid.

We see that there is a need to ensure that there is a framework through which new investments are paid for in a way that reflects the benefits that all users gain from such investments and where there is, you know, you don't have a problem of free-riding.

⁷³ EGBL Conference transcript, MEUG, 19 June 2002, 100.

We see that parties who are ultimately going to pay for those assets should have the opportunity to have a say in whether those investments are actually constructed, in terms of voting.

We also see that there is a need for those parties who currently benefit from transmission constraints should not be entitled to veto those new investments that are intended to relieve those constraints.

We also see that Part F offers something that we don't often think about, which is that at the moment when there is a need for investment you typically are having generators making a generation investment or the consumers having to do some sort of load management opportunity because there has been this problem for Transpower in investing, and so really Part F offers the opportunity for Transpower and any other transmission providers to actually compete with generation and with the demand side, and that clearly is a benefit that's offered by Part F.

However, as [Dr Turner] has said, Part F is new, it is novel, it hasn't been tried elsewhere in the world.⁷⁴

Transpower:

We also see Part F as being a significant step forward. In fact, I think we would characterise Part F as being really one of the few areas where this process has made a significant step forward, and in much of the rest of the process it has sought to take what's already been in place and combine it into one place or under one set of rules. There have been some other consequences of that which we're not comfortable with, but in respect of Part F, that is new; it is aimed at addressing a number of concerns that both the industry and Transpower have had with the investment process, and so, we see it as a major step forward.⁷⁵

- 349 Professor Hogan, however, noted that the dominant view in the United States of America (although not his own), is that there is considerable scope for free-riding and hold-out on transmission investment and that strong regulators are required with a public interest in regulating transmission providers to provide services and force others to pay for them. Professor Hogan's view was that, in future, merchant transmission combined with FTRs may provide an important role in resolving market failures.
- 350 Professor Hogan expressed doubt that the Part F voting mechanism would be able to resolve difficult transmission investment issues. In part, he raised a concern that participants would use the voting mechanism to attempt to get others to pay for some of the costs of new transmission investments that would have proceeded in any case. In the case of complex transmission investments, his concern was that voting coalitions would not form in the first place.
- 351 Whilst there was broad support for market-based solutions to transmission investments at the Conference, three key detail issues were raised by parties:
- how the transmission investment process might interact with existing contractual arrangements (Meridian);
 - whether the Part F process may lead to inefficient transmission pricing (Meridian); and

⁷⁴ EGBL Conference transcript, Meridian Energy Limited, 20 June 2002, 76-77.

⁷⁵ EGBL Conference transcript, Transpower (NZ) Limited, 26 June 2002, 20.

- whether the appeal process under Section II of Part F is sufficiently broad to allow the Industry EGB to intervene where transmission investments that would result in a net public benefit have not been voted through (Transpower).

Part F Arrangements Over-Ride Existing Contractual Arrangements.

352 Meridian raised a concern at the Conference that the Part F section II process, (where 75% of voting parties vote for a change in service levels) may lead to existing contractual arrangements being overridden. Meridian provided an example of where this may occur:

If you are saying that there's a need to have a change in the investments that ... would have some ability on affecting Comalco, perhaps if it was a removal of some capacity, which would then have an impact on our ability to deliver the service that we get partly from Transpower and partly through the general spot market, unless we have 26% of the votes we are unable to veto that investment.

When you follow through the processes in Section II, once the vote has taken place and the outcome is that you don't have the 26% to prevent it going through, there's an automatic requirement that all contracts are amended. So our contract with Transpower would be amended to the extent that we were affected by the investment change without any ability for us to pass on that change to Comalco.⁷⁶

353 Meridian's argument, on the one hand, is that the voting rules for transmission investment are appropriate because they potentially overcome the ability to free-ride on transmission investment, but on the other hand, in some cases it is necessary for a party to be able to veto a change in transmission service levels because existing contracts could be over-ridden.

354 In the Commission's view, this reflects an inherent difficulty in network industries where different consumers have different transmission service requirements, but the services themselves are common. The voting structure, based on the confirmed pricing methodology attempts to provide a balance between the potential for free-riding and hold-out, whilst also recognising that some check is needed on compelling parties to pay for, or accept changes in transmission services.

355 It is not clear to the Commission that a Crown EGB would be superior in resolving these issues, and the Applicant has already acknowledged that conflicts between existing contracts (eg. between Comalco (NZ) Limited ("Comalco"), Meridian and Transpower), and the Rulebook would need to be resolved before the Rulebook could be adopted, as important participants are unlikely to join otherwise. The Commission notes that this issue has already been referred to EGEC for consideration.

Inefficient Transmission Pricing:

356 Meridian noted in its submission and at the Conference that the pricing principles in the Rulebook did not exactly match the GPS, and requested that the Commission place conditions on the Authorisation which included the following:

- transmission prices should be non-discriminatory;

⁷⁶ EGBL Conference transcript, Meridian Energy Limited, 20 June 2002, 85–86.

- transmission prices should be subject to downward pressure; and
 - transmission prices should mirror those in competitive markets.
- 357 Meridian’s concern arises because it currently pays a significant portion of the costs of the HVDC link, as a result of what it believes is an inefficient method of allocating the costs, which distorts locational signals for new generation investment.
- 358 The second and third of Meridian’s proposed conditions relate to the Guiding Principles for the electricity industry as a whole, and not the specific *Objectives and Principles for the Provision of Transmission Services*, laid out in Attachment 1 of the GPS.
- 359 The Commission does not consider that it is appropriate to include a condition requiring the Industry EGB to determine a pricing methodology that puts sustained downwards pressure on Transpower’s prices. As the Applicant notes, the entire Part F process, which allows transmission substitutes to compete head-on with transmission services should place downward pressure on transmission prices. Second, the Industry EGB does not set actual prices, it only determines a methodology for allocating Transpower’s costs. Third, the Commission itself is responsible for monitoring Transpower’s performance under Part 4A of the Act. Imposing a condition on the Industry EGB to ensure there is sustained downward pressure on Transpower’s prices would effectively impose another set of regulatory arrangements on Transpower. Apart from the duplication of effort, this approach would also raise a risk of inconsistency of regulatory regimes. Finally, it may or may not be efficient for transmission prices to fall. Transpower envisages considerable expenditure over the next 20 years, and may need to raise prices to recover the costs of new investments.
- 360 The Commission does not agree that it is necessary to include conditions requiring inclusion of pricing principles ‘that transmission prices should mirror those that would occur in a competitive market’, or should be non-discriminatory. The critical issue in transmission pricing is to ensure that the recovery of sunk costs does not distort locational signals, and that pricing is relatively efficient, given a need to provide a fair return on transmission investments. In the Commission’s view the transmission pricing principles and transmission pricing objectives laid out in Part F Section III of the Rulebook includes pricing principles reflecting these key attributes. If pricing of the HVDC is inefficient, or distorts locational signals the Rulebook pricing principles specifically address those concerns.⁷⁷

⁷⁷ Rule 2.3.1.4 Pricing for new entrants should provide clear locational signals; Rule 2.3.1.5 Sunk costs should be allocated in a way that minimises distortions to production/consumption and investment decisions made by transmission purchasers; Rule 2.3.3.2 facilitates nationally efficient supply, delivery and use of electricity; Rule 2.3.2.4 promotes efficient use of resources; Rule 2.3.2.5 promotes efficient use of services.

Inadequate Appeal Provisions

361 A significant issue arose at the Conference in regard to the likelihood that the Part F arrangements would lead to optimal transmission investment. Transpower was critically concerned that access to the backstop investment decision-maker was overly restricted by the limits on appeals in Part F and that some net public benefit investments would not be made under the Arrangement:

...our concern with Part F is totally focussed on the appeal to the EGB for decision making.

...

..., fundamentally we believe Part F improves on the status quo, it addresses a number of concerns we have in the investment environment, so contracting and the like. I think the conclusion we'd come to, is the proposal overstates the practical incentives on the parties to form coalitions when they're voting on investment proposals.

... under the proposal, there's insufficient access to this backstop or investor of last resort; which in effect, is a role that's necessary to compensate for these realities of the market.⁷⁸

362 Part F of the Rulebook effectively provides a market-based framework for transmission investment decision making. It places responsibility in the hands of industry participants for making transmission investments, and through contractual pre-commitment attempts to overcome incentives to free-ride on other participants' investments, or prevent participants holding out in anticipation that eventually Transpower would invest.

363 Part F, Section I of the Rulebook provides for transmission service levels to be defined and placed in contracts. Service levels would be defined in terms of transmission capacity, or in meeting off-take demand, as well as security and reliability characteristics. Transpower would also be required to publish a service delivery plan and statement of investment opportunities, which it must consult on. Unless customers agree to reduce contracted service levels, or can provide alternative investments which provide equivalent services, Transpower would be able to invest according to its service delivery plan. Hence, coalitions need not form to vote on transmission investments to maintain existing service levels.

364 Where new service levels are desired by customers, they may either contract directly with Transpower or engage in the Part F Section II voting process. A 75% majority of votes cast by customers allocated votes for the new transmission investment is required before an investment would proceed under this process. The outcome of the vote could be appealed if 25% of the votes were held by distributors who have not been consulted adequately with end-use consumers, and there have been two votes with at least a year between votes. Transpower agreed that it was necessary to have some obstacles to appeal. However, the requirement that 25% of votes be held by distributors who had not adequately consulted before an appeal could be made would, in Transpower's view, make access to the back-stop investment decision-maker too remote.

⁷⁸ EGBL Conference transcript, Transpower (NZ) Limited, 26 June 2002, 22.

- 365 In theory, the Section I and Section II processes achieve the goal of shifting responsibility for investment decision making to Transpower's customers. However, Transpower considers that in reality it would remain publicly accountable for transmission outages arising from a lack of investment.
- 366 Transpower argued that the proposal over-states the practical ability of the market to ensure all beneficial transmission investments are addressed. In particular, Transpower noted that liabilities for transmission outages are not well specified, so that consumers, who may place a high value on security of supply, are not compensated for unreasonable outages arising from poor investment decision making by the industry. As a result, there may not be sufficient incentive for the industry to reflect end-use consumers' preferences for transmission security.
- 367 For example, Transpower noted that there had been a number of occasions where participants had agreed that a transmission investment was necessary, but were unwilling to commit expenditure to support the investment. The Rulebook largely removes that difficulty because the pricing decision is ultimately in the hands of the Industry EGB. However, Transpower argued that when externalities of a transmission investment are large, it may be difficult to define the appropriate group of beneficiaries, such that votes are allocated in a manner which ensures benefits exceed the payments made by more than 75% of voting parties.
- 368 Transpower was also concerned that constraint issues would not be adequately dealt with under the Arrangement, and that eventually constraints would become security issues:
- One concern that we do have is that, if investments aren't made for capacity, so there isn't a response to the marketplace to signals, then there could be a backlog, so a sort of wall of wood coming towards us, and inevitably that could hit us at one time. Therefore when we have to step in and invest for security, this could happen all at one time and would stretch Transpower's resources.⁷⁹
- 369 In principle there is a risk that a number of capacity constraints could become security risks all at one time. However, the Commission notes that the Part F, Section I process allows Transpower to plan how it intends to meet its service delivery obligations (which includes its ten year service delivery plan), including investments to meet security of supply obligations.
- 370 The Applicant also stated at the Conference that if Transpower felt a transmission investment had not been made then it could still make an investment consistent with its SCI and side letters. In response, Transpower noted that if this were the case then the scope for hold-out has not been removed by Part F, and that the status quo would be perpetuated with Transpower recovering the costs of investment as best it could.
- 371 The Commission, however, considers that under the Arrangement, it is likely that Transpower would face greater difficulty in recovering the costs of any investments it made on a unilateral basis since customers' preferences are to be specified in contractual relationships. The Commission considers that Transpower would be unlikely to be the investor of last resort.

⁷⁹ EGBL Conference transcript, Transpower (NZ) Limited, 26 June 2002, 30-31.

- 372 It appears to the Commission that the Rulebook is structured in a manner which is likely to significantly reduce the scope for hold out. If customers wish to reduce security of supply, they will have to positively make that decision. In the case of security of supply, it seems likely that distributors would most likely be the voting parties. Where distributors have votes they would have to consult with consumers, otherwise any person would have the ability to appeal under the Rulebook. It seems unlikely that consumers, particularly large consumers, would indicate that they have a desire to reduce security of supply, or that distributors would vote inconsistently with consumer preferences.
- 373 The Applicant also noted in response to Transpower's concerns that coalitions would not form, that although there are transactions costs of coalition forming, given the large, and lumpy nature of transmission investments, these costs would not likely exceed the benefits of an investment. Furthermore, these costs are not avoided by a more central decision-maker in acquiring information on consumer preferences. The Applicant also noted that the likely adoption of a transmission hedge product would provide more secure transmission rights, which would be likely to facilitate more efficient investment.
- 374 Incentives on parties to shift the costs of common transmission services to other parties are ubiquitous, and there is no universally accepted method of resolving such issues. The Commission recognises that Part F is an innovative way of dealing with common investment decisions and together with a transmission hedge product may well provide an effective way of resolving transmission investment problems.
- 375 Overall, the Commission is of the view that the design of Part F has significant potential to satisfactorily resolve security issues. In respect of transmission constraints leading to higher electricity prices, there is a much greater reliance on coalitions forming to remove or mitigate constraints, as the degree to which lines constraint is not likely to be contractually defined. The Commission considers that there is more doubt that the Part F process would address transmission constraint issues as satisfactorily as the counterfactual.
- 376 However, while there are some risks associated with the Part F process, the Commission considers it likely that a Crown EGB would initially adopt similar provisions to Part F in the Arrangement. There is merit in making access to the back-stop investor decision-maker remote, since it limits the scope for hold-out. However, the Commission is of the view that the Crown EGB and Minister would take an active interest in monitoring the performance of Part F and would be likely to adopt new rules or broaden appeal rights if evidence emerged that efficient transmission investments were not forthcoming. In contrast, it may be more difficult under the Arrangement to gain the necessary support to change the rules relating to transmission investment.
- 377 The Commission notes that subsequent to the Conference the industry has examined proposed rule changes, which are intended to broaden the appeal rights to the EGB on transmission decisions made under Part F, section II. While the Commission notes that this may be an improvement on the Part F arrangements in the Application, the Commission has not consulted on, or received submissions on the likely impacts of

the rule changes. Furthermore, the proposals have arisen under the EGEC process, not under the Rulebook governance arrangements.

- 378 The Commission remains of the view that the Part F approach to transmission investment decision making has significant potential, but it is untested. The process and voting arrangements for implementing rule changes in the Arrangement could potentially delay beneficial changes to the Part F, Section II investment decision-making process. Accordingly, there is greater potential under the Arrangement for a period of under-investment.

Implications of Non-Membership

- 379 The Part F process is designed to work with full membership of the Rulebook, otherwise the ability to compel non-members that are free-riding or holding out on to pay for transmission investments is reduced. The Commission consider it would be difficult to compel non-members to pay for changes in transmission service levels, which they had indicated they did not want prior to any investment taking place. Although quantum meruit can provide some assurance that the Industry EGB would be able to recover revenues from non-members for services they are currently obtaining, it is not clear to the Commission that it could be used to compel payment for service levels not previously sought by the non-member.
- 380 The Commission considers that unless a significant majority of distributors, major generators, major retailers and transmission providers join the Rulebook, the ability of the Part F process to deliver efficient transmission investments would be in some doubt, and some net benefit investments may be delayed or abandoned.
- 381 The Commission recognises that parties unanimously agree that Part F is a significant step in over-coming the current level of under-investment in the grid, but shares Transpower's concern that the status quo may be perpetuated with less than full membership.
- 382 The Commission notes that EGEC may only allow the rules to come into effect if a substantial majority of voters support the rules coming into effect. Although the term substantial majority has not been defined, given the vital importance of membership to the success of Part F, the Commission finds it unlikely that EGEC would not delay commencement until all of the groups mentioned in paragraph 380 had agreed to join.
- 383 Overall, the Commission considers that the Rulebook is unlikely to proceed without sufficient members to prevent hold-out or free-riding having an impact on transmission investments. Although there may be some delay in achieving sufficient membership under the Arrangement, the Crown EGB would also likely take some time to set up. Accordingly, it is not necessary to quantify any differences between the counterfactual and the Arrangement in terms of the point at which they are likely to proceed.

Over-Investment

- 384 The Commission observed in its Draft Determination there would be a risk of over-investment with a Crown EGB. On decisions where unanimity had not been reached on an investment, the Crown EGB would decide on net benefit grounds whether an investment should proceed.
- 385 The Commission reasoned that the Crown EGB would be likely to be risk averse in its recommendations to the Minister, since the political costs of outages and/or ongoing constraints would be large relative to the costs of an investment which would be spread over a wide group of consumers.
- 386 The Applicant and a number of other parties concurred with the Commission's analysis in the Draft Determination. Contact produced references to a Treasury study of central planning in the electricity industry and evidence of cross-subsidisation of residential consumers by energy supply companies when governed by elected representatives.
- 387 MEUG and Transpower argued that Transpower has no incentive to promote over-investment in the grid. Gold-plated assets would be at risk of stranding under the ODV Rules, and as a public entity operating under its particular SCI, Transpower has no commercial incentive to over-invest in the grid.
- 388 Whilst the Commission recognises that the commercial incentives on Transpower to promulgate unwarranted investments are absent, as Transpower noted in its submissions to the Commission in Decision 356, it is increasingly not in a position to be able to evaluate all alternatives, including non-transmission substitutes.⁸⁰ Transpower's advice on transmission investments would reflect that position. Furthermore, Transpower is likely to be risk averse in its recommendations on transmission investments. Although it does not necessarily have a commercial driver for over-investment, it is politically accountable for ensuring system integrity. A Crown EGB faces similar incentives and is likely to make conservative decisions.
- 389 NZIER cautions that conservatism is not necessarily to be equated with inefficiency. Generator-retailers and distributors, voting in their own self-interest, do not necessarily take into account the wider public benefit of improvements in security or capacity management. The Commission acknowledges the validity of this argument, but does consider that conservatism is likely to lead to a degree of over-investment. For instance, a Crown EGB may be more susceptible to favouring transmission solutions over substitutes, or not be willing to bear the risk of investment deferral.
- 390 While the Commission considers that there may be some bias towards over-investment, it also recognises that the Crown EGB is not a central transmission planner. Its role as investor of last resort would be to hear appeals on specific transmission investments. The process prior to appeal would reveal a large amount of information on the merits of a particular proposal: transmission substitutes would have an opportunity to reveal themselves and the Crown EGB would have access to

⁸⁰ Transpower (NZ) Limited, Application to Commerce Commission for authorisation of restrictive trade practice, May 1999, 15–17.

the voting record and the views of end-use consumers where they have been consulted with by a distributor. This would mitigate but not eliminate the risk of over-investment.

- 391 Over-investment would likely occur only as rules relating to transmission investment in the counterfactual diverge from those in the Arrangement. As discussed earlier, the Commission considers it likely that the Crown EGB would initially adopt similar rules (including appeal rights) as proposed the Arrangement.

Conclusion: Transmission Investment

- 392 The Commission considers that, in respect of transmission investment, the Arrangement carries a higher risk of a period of under-investment than the counterfactual. On the other hand, the Arrangement is likely to avoid some over-investment which might occur in the counterfactual.

QUANTIFICATION OF PUBLIC BENEFITS AND DETRIMENTS

- 393 The framework adopted for the assessment of benefits and detriments is set out in the Commission's Occasional Paper on Public Benefits and Detriments.⁸¹ That analysis uses a welfare framework to assess the effect on net public benefits of changes in allocative, productive and dynamic efficiency.

- 394 NZIER cautions in its submission that:

... there is a risk that efforts at deriving values for detriments and benefits will be seen as turning what are really broad estimates into precise values. This could obscure the judgement inherent in the process.⁸²

- 395 A quantitative framework provides a more objective framework for establishing the weights given to various claims of benefits and detriments, so that the Commission can determine in an overall sense whether there is likely to be a net public benefit or detriment arising from a Arrangement. Nevertheless, within that framework, the Commission is necessarily speculating on uncertain future outcomes. While the Commission can be informed by general results from empirical economic studies, there is necessarily a degree of subjectivity in the Commission's quantification of benefits and detriments. The degree of subjectivity will vary from authorisation to authorisation.
- 396 The Commission recognises that in this particular authorisation there is a high degree of uncertainty about the evolution of the Rulebook under either the Arrangement or the counterfactual. The specific relationship between rule changes and competition and efficiency is also relatively uncertain. Nevertheless, the quantitative framework provides a basis for considering the potential magnitudes of various effects, even

⁸¹ Commerce Commission (1998) *The Evaluation of Public Benefits and Detriments under the Commerce Act 1986*, Occasional Paper 7. This paper is undergoing revision due to recent legislative changes, but that revision is unlikely to affect this analysis.

⁸² NZIER (2002) *EGBL Application for Commerce Commission Authorisation*, 5.

where there is a degree of uncertainty. In particular, it is helpful in terms of establishing the relative impacts of various effects.

- 397 The following sections provide the Commission’s assessment of likely benefits and detriments arising from differences between the Arrangement and counterfactual. The quantitative estimates are based on the qualitative assessments in the previous section.
- 398 The quantification, including the assumptions used, is shown in greater detail in Appendix 3. The Commission emphasises that this modelling exercise has been used to test a number of outcomes against possible and/or probable events and the assumptions made need to be considered in that light.

Quality of Decision Making

- 399 The discussion in paragraphs 286 to 347 concluded that the Commission was not satisfied that the institutional arrangements surrounding decision making would necessarily restrain strike-down of pro-competitive and public benefit enhancing rules in the Arrangement. Whilst a Crown EGB may still be at some risk of obfuscation and delays by generator-retailers through working group processes, it would be superior to the Industry EGB in advancing pro-competitive and public benefit enhancing rules.
- 400 However, the Commission also remains unconvinced that the Crown EGB would be a superior decision-maker on complex rule changes. The Crown EGB is likely to be unduly risk averse in its recommendations, and the Minister is likely to factor short-term political considerations into decision making.
- 401 Hence, in a qualitative sense, the Commission’s has identified offsetting influences on the development of efficient rules under the Arrangement and the counterfactual.
- 402 In the Commission’s Draft Determination, it determined a likely benefit from industry decision making through superior ability of the industry to make efficient rules, as a Crown EGB and Minister would be prone to the influence of lobbyists, and not necessarily be able to resolve complex issues, in the same manner as industry decision making. The Commission determined a likely benefit ranging from \$28.4 million to \$56.7 million in net present value (“NPV”) terms from superior decision making and a benefit of \$11 million to \$22 million due to avoiding a higher cost of capital that may have arisen from regulatory risk. The Commission also estimated a likely higher cost of governance, transactions and compliance amounting to \$5.9 million to \$11.9 million NPV in the counterfactual. The Commission considered that differences in the likelihood of making service provision contestable would lead to benefits of \$3.3 million to \$6.4 million.
- 403 The Commission also stated in the Draft Determination that in some instances pro-competitive and public benefit enhancing rules would likely be struck down and estimated a detriment of \$33.3 million to \$72.2 million NPV. A Crown EGB would be superior in identifying and overcoming attempts to strike-down pro-competitive and public benefit enhancing rules, given its central place in decision making.

Lower Cost of Capital

404 Arguably differences in the quality of decision making may have an influence on the industry's cost of capital. In particular, the Applicant argued that it was likely that under a Crown EGB there would be a higher cost of capital, arising from greater regulatory risk. The Applicant also argued in its submission on the Draft Determination and at the Conference that the Commission should include a benefit arising from the avoidance of a higher cost of capital for all generator-retailers in the counterfactual. The Applicant also suggested that it was appropriate to add that as an additional benefit to those calculated using the Commission's usual approach of calculating allocative, productive and dynamic efficiency gains, since these are calculated on a certainty-equivalent basis, and do not take into account risk.

The approach that we take is that those efficiency calculations are really calculated on a certainty equivalent basis, to some extent they have ranges in them, but they don't incorporate the welfare consequences of risk in and of themselves, the efficiency calculations. They look at scenarios of possible outcomes. We believe the welfare aspects of risk are an important additional factor. In particular, in an industry with large long-lived assets where risk can affect cost of capital and therefore have quite a significant impact on people's actions in terms of investment.⁸³

405 NZIER argued that the Commission's analysis already incorporated political risk in its quantification of benefits. To include political risk as a separate benefit would constitute a double counting. Furthermore, if the Commission had included the higher cost of capital as a reduction in cash flows to the industry this is merely a transfer from the industry to consumers and should not be treated as a detriment.

406 NZIER also argued that it would be difficult to foresee the reaction of capital markets to either the counterfactual or the Arrangement. It is not clear on the evidence that political risk would be higher under one arrangement relative to the other.

407 On balance, the Commission considers that increases in regulatory risk, including increases in the cost of capital, can be adequately dealt with under the economic cost benefit framework the Commission has previously used. To provide a separate benefit or detriment relating to regulatory or political risk would potentially lead to double counting.

408 To the extent that it exists, an increase in regulatory risk is likely to be based on a perception that the Crown EGB would produce inefficient rules limiting the potential returns on an investment. This would affect the cost of capital to the sector, leading to potential losses of efficiency, for instance a reduced rate of new investment.

409 The Commission also agrees with the NZIER that, to the extent that the Government may have particular policy objectives for the sector, for example requiring the industry to fund renewable generation, it may achieve this through its ownership stake, through the GPS, or simply legislate for it. The electricity industry would remain a key area for political monitoring and it is likely that political risks are relatively similar in the counterfactual and Arrangement. To the extent that political risks affect decision quality, this is captured in the effects on decision making which are quantified below. Accordingly, the Commission assigns a nil benefit to the Arrangement arising from an avoidance of higher cost of capital.

⁸³ EGBL Conference transcript, EGBL, 28 June 2002, 75.

Strike down of pro-competitive and public benefit enhancing rules

- 410 The Applicant in its submissions argued that the voting record in NZEM showed no evidence of striking down pro-competitive and public benefit enhancing rules. In voting on pro-competitive and public benefit enhancing rule changes there is a 100% record of voting through pro-competitive and public benefit enhancing rule changes in NZEM. Accordingly, the Applicant argued that the Commission should assign no detriments arising from strike down of pro-competitive and public benefit enhancing rule changes.⁸⁴
- 411 In its submission on the Draft Determination, the Applicant also advanced the case that Transpower has some anti-competitive tendencies. A Crown EGB would be likely to give Transpower's views more weight as an expert in system security, which would result in a lessening of competition in the wholesale electricity market. The Applicant pointed to statements made by Transpower indicating its advocacy of common standards and mandatory arrangements as evidence.⁸⁵
- 412 Accordingly, Murray and Hansen suggest that a benefit of the Arrangement is that it ensures Transpower's views are sufficiently balanced in the voting process. In contrast the Crown EGB would not give sufficient weight to views opposing Transpower's. Murray and Hansen attribute a benefit of the Arrangement of \$50 million to \$105 million NPV, based on the Commission's assumptions in the Draft Determination regarding strike down of pro-competitive and public benefit enhancing rules in the Arrangement, but reversing the sign (ie. the detriment becomes a benefit) and using a different value base for the assessment of dynamic efficiency.
- 413 The Commission does not consider that Transpower has a strong commercial driver to frustrate competition in transmission services. However, it does note that Transpower's concern for system security would be reflected in the advice it provides. A Crown EGB would be likely to favour the advice of Transpower, and there is at least some risk that this may bias the evolution of the electricity network. The Commission does, however, consider that this tendency would not be as strong as the Applicant has stated it. The Commission recognised in its quantification of decision making quality that lobbying (including the advice provided by Transpower) may lead to inefficient rule development, and does not consider that assigning any additional detriment is warranted above that estimated in the Draft Determination.
- 414 Despite the history of no pro-competitive and public benefit enhancing rules being voted down in the NZEM, Transpower noted that a number of pro-competitive and public benefit enhancing rule changes had not made it through to the vote, after extremely lengthy periods.⁸⁶ In particular Transpower pointed to the failure to adopt FTRs as a key example of industry self-interest not developing a pro-competitive, efficiency enhancing outcome, since the market commenced in 1996. Accordingly, Transpower and NZIER argue that detriments arising from pro-competitive and public benefit enhancing strike down in the Arrangement would be in excess of \$72.2 million NPV.

⁸⁴ The Applicant also presented an alternative framework for evaluation – a 'wait and see' approach, discussed below.

⁸⁵ Murray, K and Hansen, E., (2002) *Report to the Commerce Commission on the Draft Determination on the Arrangement Proposed by Electricity Governance Board Limited*, Annex 1, 40.

⁸⁶ EGBL Conference, June 2002, Transpower (NZ) Limited Conference notes, Appendix, 24.

- 415 While the Commission acknowledges that there is a real risk of strike down in the Arrangement, it does not accept NZIER’s claim that detriments would likely be larger than the Commission’s assessment in the Draft Determination. Claims that prices would increase by 10% to 30% and that managerial slack would increase to between 3% and 5% over-states the influence of rules on connection of new technology, or new entrants, and the degree to which existing levels of competition allow managerial slack. This would imply a failure on the part of the Arrangement, unwarranted by an examination of the proposed Rulebook and institutional arrangements.
- 416 MEUG also considered that the risk of strike-down of pro-competitive and public benefit enhancing rules was high, and that there would also be a detriment of between \$39 million and \$86 million NPV. MEUG suggested that demand elasticities would be much higher than the Commission had assumed in the Draft Determination, and that retail market competition would also be affected by strike-down or delays.
- 417 Overall the Commission considers that strike down of pro-competitive and public benefit enhancing rules under certain circumstances is likely under the Arrangement. It does not consider that the industry has unfettered ability to strike down rules, but the checks and balances are insufficient to prevent all pro-competitive and public benefit enhancing rules being thwarted. The Commission considers that its estimates of pro-competitive and public benefit enhancing strike-down in the Draft Determination reasonably reflect that balance, and include the detriments flowing through to the retail market.
- 418 Accordingly, the Commission has quantified detriments arising from strike down of pro-competitive and public benefit enhancing rules through higher prices, and reductions in productive and dynamic efficiency in the wholesale electricity market.

<i>Table 1: Strike-down of pro-competitive and public benefit enhancing rules in the Arrangement</i>		
<i>Allocative efficiency (higher prices in all years)</i>	Value	Units
Average price under strong competition	50	\$/MWh
Average volume under strong competition	39,900	GWh
Average mark up on price	2.75 to 5.5	%
NPV of dead-weight loss (“DWL”) from higher electricity prices under the Arrangement	6 to 24	\$M
<i>Allocative efficiency – loss from delayed new investment</i>		
Average winter price (dry year)	250	\$/MWh
Marginal cost (dry year)	80	\$/MWh
Winter volume with new investment	9,200 (rounded)	GWh
Winter volume without new investment	8,200 (rounded)	GWh
Probability of dry year	5	%
New investment required	Years 3 and 7	
NPV of DWL in Arrangement	1	\$m
<i>Productive efficiency</i>		
Average annual cost of electricity output	784 to 851	\$m
Average efficiency loss under weaker competition	0.28 to 0.55	%

NPV of efficiency loss in Arrangement	13 to 23	\$m
<i>Dynamic efficiency</i>		
Cost of electricity output	784 to 851	\$m
Productivity gain under Arrangement	0.9 to 0.95	%
Productivity gain under counterfactual	1	%
NPV of dynamic efficiency loss under Arrangement	13 to 24	\$m
TOTAL DETRIMENT ⁸⁷	33 to 72	\$m

Decision making capabilities

- 419 The Applicant argued that industry decision making co-locates decision making with those directly affected by a rule change and accordingly would likely be superior to the counterfactual. The Crown EGB/Minister would be more prone to errors in decision making because they would not have the same depth of knowledge of the costs and benefits of any particular rule change. The Applicant estimated a benefit of \$45 million to \$90 million NPV arising from the superiority of industry decision making.⁸⁸
- 420 As noted in the earlier discussion, MEUG considered that there would be no detriment arising from informational disadvantages in a Crown EGB, and in fact considered that a Crown EGB would have a significant national interest information advantage over industry decision making.
- 421 NZIER argue there is only a small advantage of industry decision making relative to a Crown EGB, and suggests that the benefit would more likely be of the order \$2.8 million to \$5.6 million NPV. NZIER argued that because the rules only apply to a subset of industry production costs the Commission overstated the effect on productive efficiency by applying the percentage inefficiency in the counterfactual to the entire production cost base. The Commission's view however, is that the choice of rules fundamentally affects the flexibility of plant operation, and hence, any inefficiency arising from deficiencies in the rules would affect the entire production cost base.
- 422 For the reasons stated in paragraphs 321 to 325 above, the Commission considers that this over-states the decision making strengths of a likely Crown EGB and Minister as final decision-maker. The Commission estimates a benefit from industry decision making in the Arrangement of \$28.4 million to \$56.7 million NPV. This arises through superior productive and dynamic efficiency in the wholesale electricity market.

⁸⁷ Note that numbers in all tables have been rounded and may not sum exactly.

⁸⁸ The Applicant adopted the same estimates of inefficiency as the Commission in its Draft Determination. It did however, suggest a different base for the calculation of dynamic efficiency using market value rather than production value as the Commission had used. The Commission considers that it is more appropriate to use production value. In any case the choice of market value or production value does not affect the overall conclusions drawn on benefits and detriments, since the choice of base will equally affect the magnitude of benefits (quality of decision making) and detriments (strike down of pro-competitive rules).

<i>Table 2: Comparative advantage in decision making under the Arrangement – impact on the generation market</i>		
<i>PRODUCTION EFFICIENCY</i>	Value	Units
Average annual cost inefficiency under the counterfactual relative to the Arrangement	0.275 to 0.55	%
Average annual production cost	920	\$m pa
NPV of production efficiency loss under the counterfactual	14 to 28	\$m
<i>DYNAMIC EFFICIENCY</i>		
Average annual production cost	920	\$m pa
Productivity gain under Arrangement	1.0	% pa
Productivity gain under counterfactual	0.9 to 0.95	% pa
NPV of dynamic efficiency loss under the counterfactual	15 to 29	\$m
TOTAL BENEFIT	28 to 57	\$m

Transaction, compliance and lobbying Costs

Introduction

- 423 The Commission also stated in its Draft Determination that higher transaction and compliance costs are likely to result from the relative information disadvantage of a Crown EGB in making decisions, and reduced priority to investigate efficiency enhancing rule changes under the counterfactual. These additional costs would be reflected in higher service provider fees, which were quantified as \$2.2 million to \$4.5 million NPV.
- 424 The Commission also quantified the greater costs of lobbying and additional costs incurred by the Ministry of Economic Development in advising the Minister as an additional “transaction cost” which would result in productive inefficiencies. This was broadly modelled as creating an additional employment cost for the industry and quantified as falling between \$3.7 million to \$7.4 million NPV.

Transaction and Compliance Costs

- 425 The Applicant submitted that:
- poorer quality rules over time under the counterfactual would lead to higher compliance costs and a greater level of non-compliance; and
 - current contractual methods of enforcement are effective and will continue to be so under the Arrangement.
- 426 The Applicant pointed to the enforcement processes under NZEM (involving compliance teams and a rulings panel) as evidence of the effectiveness of the enforcement processes (which are similar to those in the Arrangement). It also suggested that the Rulebook provides incentives to achieve comprehensive coverage, thereby minimising the costs of securing payment from non-members.

- 427 In regard to the necessity of future applications to the Commission, the Applicant suggested that further authorisations will only be required to the extent that rule changes on the margins infringe Part II of the Act, a situation that is likely to be uncommon.
- 428 In contrast, Transpower believes that decision making under a Crown EGB is likely to be more streamlined. Furthermore, it would avoid the potentially large costs of enforcement arising from the use of quantum meruit. Transpower does not quantify a detriment for this but regards it as potentially very large. Transpower also believes that the need for ongoing Authorisations for rule changes which are outside the scope of the Authorisation will prove costly and attribute a detriment of \$0.5 million to \$1.0 million for each Authorisation.
- 429 Transpower submits that “transaction costs of the counterfactual would not be significantly different from the costs associated with the multi-layered industry EGB before the Commission, especially if there is intended to be detailed qualitative oversight of the Industry EGB”.⁸⁹
- 430 On balance, the Commission considers that transaction and compliance costs are likely to differ little between either arrangement. Although, the industry may have to pay higher costs on occasion to recover fees from non-members through quantum meruit, as stated earlier the Commission considers there would likely be few non-members.
- 431 Although the counterfactual may have more stream-lined processes in terms of rule development, since the Crown EGB would not be required to allocate votes, the process of informing the Crown EGB about the effects of a rule change would likely be more costly, as a much greater degree of information would need to be conveyed to the Crown EGB and Minister. The Crown EGB would likely involve more bureaucratic processes. Enforcement costs would also likely be greater.
- 432 The Commission concludes that there is likely to be no material difference in transaction and compliance costs between the Arrangement and counterfactual, and attributes no benefit or detriment to the Arrangement.

Lobbying

- 433 In response to the Draft Determination, the Applicant agreed that the opportunity for, and potential returns from, lobbying are less under the Arrangement than the counterfactual for the following reasons:
- an Industry EGB has mainly a process management role so that lobbying it would have less potential pay off than lobbying the Crown EGB where the Minister is the key decision-maker. Under Industry EGB voting members are the key decision-makers and will be subject to lobbying from each other and other people;
 - the industry would have less reason to engage in lobbying of the Minister under an Industry EGB;

⁸⁹ EGBL Conference transcript, Transpower (NZ) Limited, 28 June 2002, 21.

- within its greater decision making role the Crown EGB has a greater need than an Industry EGB for information (particularly where an issue is contentious) and therefore would be more susceptible to lobbying activity; and
- the Industry EGB creates a bridge between market participants and the political market, in a way that is likely to be more successful in solving tensions between industry and political interests.

434 NZIER disagreed with the Commission's preliminary view. It suggests that costs would be similar or greater in the Arrangement compared with the counterfactual. NZIER considered that the nature of the electricity industry means it will always be 'politically sensitive', and accordingly would attract a high degree of lobbying.

435 Similarly MEUG did not believe that a Crown EGB would be prone to more lobbying and that in fact the opposite may occur. It points to a number of public consultation processes to support its view that these processes work well when officials manage the process. It believes that the transparency of these processes means that officials will be sceptical of lobbying by special interest groups where particular advantages are sought for the group at the expense of the nation's overall wealth. MEUG suggested that intense lobbying by generators would occur under an Industry EGB in relation to:

- getting nominees accepted onto working groups;
- getting the Industry EGB to prioritise issues that suit particular suppliers;
- influencing the selection of experts sensitive to the views of suppliers; and
- pre-voting trade-off and lobbying between suppliers to support each other on various rule changes.

436 MEUG points to suppliers having far more resource to dedicate to lobbying for positions that favour their position relative to the limited resource that consumers can apply to such lobbying.

437 The Commission considers that a high degree of lobbying is almost certain under both the Arrangement and counterfactual. For instance, the costs arising from those points raised by MEUG are likely under either arrangement. Nevertheless, the centralised decision-making role of the Minister and Crown EGB would likely invite more intense lobbying. The Commission's estimate of that effect is relatively conservative, and, on the basis of evidence before it, the Commission sees no basis for altering its preliminary view on lobby costs, quantified as an increase in industry employment resulting in a net benefit for the Arrangement of \$4 million to \$7 million NPV.

Additional employment in electricity sector	5 - 10	Persons
Additional employment and employment related costs	120,000 ⁹⁰	\$ per person
TOTAL BENEFIT	4 to 7	\$m

Contestability of market service provider roles

438 As discussed in paragraphs 326 to 333 above, the Commission determines that for service provider roles, other than system operator, there is likely to be equal likelihood of contestability in the Arrangement and counterfactual. However, in respect of the system operator, the Commission concludes that there is a greater likelihood of the role being contestable with the Arrangement.

439 In this respect, the Commission has calculated a benefit for the Arrangement of \$3 million to \$5 million NPV arising from a greater likelihood of making the system operator role contestable. In the case of the system operator, contestability would bring benefits arising from reduced operating costs and productivity gains over time, relative to the counterfactual.

<i>PRODUCTIVE EFFICIENCY</i>	Value	Units
Cost of service with contestability	40	\$m/yr
Operating costs as a proportion of total costs	66	%
Additional operating costs without contestability	4 to 8	%
Probability of contestability under counterfactual	10	%
Probability of contestability under Arrangement	50	%
NPV relative to counterfactual	2 to 5	\$m
<i>DYNAMIC EFFICIENCY</i>		
Cost of services with contestability	40	\$m/yr
Productivity gain with contestability	0.1	% Arrangement
Productivity gain without contestability	0.09 to 0.95	% Arrangement
Probability of contestability under counterfactual	10	%
Probability of contestability under Arrangement	50	%
NPV relative to counterfactual	0.2 to 0.5	\$m
TOTAL BENEFIT	3 to 5	\$m

⁹⁰ Assuming wage costs of \$80,000 per year for senior-level industry expertise and employment related expenses of \$40,000 per year.

Transmission Investment

- 440 In its Draft Determination the Commission estimated a benefit arising from avoidance of over-investment in transmission ranging from \$10.7 million to \$21.1 million NPV. This was based on an assessment that the appeal right would be far broader in the counterfactual and that the Crown EGB has a natural bias towards over-investment in transmission, given that it would become accountable for ensuring the integrity of the grid.
- 441 In contrast, under the Arrangement, the Commission in its Draft Determination considered that there would be a likelihood of under-investment, leading to modest detriments relating to reduced security of supply, but a more sizeable detriment resulting from the failure to resolve constraints. The Commission tentatively ascribed a detriment of \$28.7 million to \$54.4 million NPV.

Over-investment

- 442 As noted earlier, the Commission's assessment in the Draft Determination of over-investment in the counterfactual was based on the premise that there would likely be wider appeal rights in Part F in the counterfactual and that the Crown EGB would make conservative decisions on transmission investments.
- 443 The Applicant, Contact and Meridian argued that over-investment was highly likely in the counterfactual. The Applicant estimated a benefit for the Arrangement of \$10 million to \$20 million NPV arising from the avoidance of over-investment in transmission in the counterfactual, and \$10 million to \$20 million NPV arising from the avoidance of reduced competition in transmission services.
- 444 Transpower, NZIER, and MEUG argued that the optimised deprival value for valuing Transpower's assets would be a constraint on over-investment and that there is no natural incentives on Transpower to gold-plate. NZIER further considered that to the extent that Transpower has an incentive to promote investment this is likely to be correcting for an under-investment rather than gold-plating. MEUG considered that there would be no detriment arising from over-investment, whilst NZIER considered that if there was any risk of over-investment, it would be small, falling in an estimated range of \$2 million to \$3.5 million NPV.
- 445 Overall, the Commission considers that the constraints on over-investment are significant. The Commission's estimates of benefits for the Arrangement arising from avoidance of over-investment in the Arrangement are conservative, amounting to 0.5% to 1% per annum, and does not consider it appropriate to strengthen or weaken that assessment.
- 446 The Commission considers that differences between the Arrangement and counterfactual would arise where differences in the rules on transmission investments arise. As discussed earlier, if Part F fails to satisfactorily resolve transmission under-investment, the Crown EGB is likely to intervene more quickly than the industry to adopt new rules. The cost of this early intervention may be a small amount of over-investment and crowding out of transmission substitutes. This is quantified in Tables 5 and 6.

<i>Table 5: Over-investment in the transmission grid</i>		
<i>PRODUCTIVE EFFICIENCY –TRANSMISSION INVESTMENT</i>	Value	Units
Transmission investment	100	\$m pa
Investment inefficiency under a Crown EGB	0.5 to 1	%
Additional capital expenditure under Crown EGB	0.5 to 1	\$m pa
Probability that Part F does not resolve transmission investments	33%	
Years where Arrangement is different to counterfactual	3-8	
TOTAL BENEFIT	0.6 to 1.2	\$m

447 NZIER also argued that the Commission was wrong to contend that even if there was an over-investment risk in the counterfactual, this would not have an influence on Transpower's status as a monopoly provider of transmission services, and hence it would be unlikely that any difference between the counterfactual and the Arrangement would affect productive or dynamic efficiency.

448 The Commission considers that in the event that the Part F rules differ over time in the Arrangement relative to the counterfactual, and in particular where there is a broadening of appeal rights which may allow Transpower a greater influence over the development of the transmission grid, there may be a small degree of crowding out of transmission service substitutes that would also lead to a lower rate of productivity in transmission services over time. Nevertheless, this would only occur where there are differences in timing of development of the Part F rules. The Commission estimates that this could lead to a small benefit for the Arrangement of \$2 million to \$4 million NPV, as detailed in Table 6.

<i>Table 6: Reduced competition in transmission services</i>		
<i>PRODUCTIVE EFFICIENCY –OPERATING COSTS</i>	Value	Units
Annual transmission costs	440	\$m/yr
Percentage operating costs	32	%
Annual transmission network operating costs	140.8	\$m
Transmission inefficiency under a Crown EGB	0.35 to 0.7	%
Probability that Part F does not resolve transmission investments	33%	
Years where Arrangement is different to counterfactual	3-8	
NPV gain relative to the counterfactual	0.7 to 1.4	\$m
<i>DYNAMIC EFFICIENCY</i>		
Productivity gain under the Arrangement	1	% pa
Productivity gain under a Crown EGB	0.9 to 0.95	% pa
Transmission costs	440	\$m/yr
NPV GAIN RELATIVE TO COUNTERFACTUAL	1 to 2	\$m
TOTAL BENEFIT	2 to 4	\$m

Under-investment in the grid

- 449 In its Draft Determination, the Commission assessed a detriment arising from the Arrangement, resulting from under-investment causing higher nodal prices, increased likelihood that new generation would be located inappropriately, greater likelihood of transmission outages, and reduced generator productivity over time. The Commission was concerned that agency difficulties would make it difficult for coalitions to form to adequately address some security and constraint issues, because voting participant's interests are not necessarily aligned with consumer interests.
- 450 The Applicant stated that the Commission should assign a zero detriment arising from under-investment in the grid. It considered that the agency difficulties would likely be overcome in the Arrangement by the threshold for veto of transmission investments, the likely adoption of a transmission hedge product and pre-commitment in the Part F contractual arrangements.
- 451 In contrast, Transpower, NZIER, and MEUG argued that the Commission's estimate of detriments arising from under-investment would be significantly higher than the Commission estimated in its Draft Determination.
- 452 NZIER argued that the Commission had substantially under-estimated the costs of under-investment, because of structural characteristics in the industry:
- the mark-up on price with weaker competition would lie between 10-30% given the structure of the industry, with vertical integration between generation and retail along regional lines;
 - managerial slack would be much greater than the Commission had estimated, and would be more likely in the order of 3-5%; and
 - the likelihood of under-investment would be much closer to 100% given the structural and behavioural characteristics in the industry.
- 453 The Commission recognises that the structure of the industry is likely to have a bearing on competitive outcomes. However, industry structure is likely to be largely independent of market rules. Furthermore, there does not appear to be significant rule-based barriers to new-entrant generation within the proposed Rulebook. The Commission does not consider that structural deficiencies, to the extent that they exist, would be addressed differently under either the Arrangement or counterfactual.
- 454 Overall, the Commission does not accept that the risk of under-investment is as small as Murray and Hansen, nor is likely to be as large as NZIER, have suggested. As noted in the earlier discussion, Part F is an untested approach to transmission investment. There is a risk that some efficient transmission investments would not be made, in particular resolution of constraint problems. However, as both the counterfactual and Arrangement are likely to involve the Part F arrangements, at least initially, the Commission considers that in both the Arrangement and the counterfactual there would be some risk of failing to resolve transmission investment problems.

- 455 The Commission does, however, consider that the Crown EGB would be superior in its monitoring of investment decisions and the effectiveness of coalition forming. The Minister and Crown EGB, as publicly accountable bodies would take an active interest in ensuring that mechanisms for agreeing transmission solutions are effective. As a result, if Part F fails to adequately resolve transmission investment problems there is a possibility that those problems would take longer to resolve under the Arrangement.
- 456 The Commission considers it likely that in the counterfactual the Minister and Crown EGB would let the Part F arrangements proceed for a short period of time, and, if it fails to deliver reasonably efficient outcomes the Minister/Crown EGB would put in place an alternative arrangement. In contrast, the Commission considers that rule changes to rectify any deficiencies in Part F would not be forthcoming in the Arrangement as quickly as in the Crown EGB. The Commission estimates a detriment arising from the Arrangement of \$11 million to \$20 million NPV due to the possibility of delay in the introduction of the rule changes.
- 457 To evaluate the potential costs of under-investment in the Arrangement relative to the counterfactual, the Commission has assessed the likely consequences of higher energy prices arising from under-investment, the costs of increased risk of transmission outages, productive efficiency losses as a result of distortions in locational price signals, and productive and dynamic efficiency losses arising through reduced competitive pressure in the wholesale electricity market.
- 458 These impacts are quantified as differences relating to timing of appropriate changes to the rules which address any potential deficiencies in Part F. The Commission considers that if Part F is deficient the Minister and Crown EGB would determine appropriate amendments to Part F within three years of the rules coming into effect, whereas it would be likely under the industry arrangement for it to take a further five years to agree on suitable alternative arrangements and implement necessary investments. Clearly the estimates of the timing of rule changes under either arrangement are an assumption, however, the estimated detriments are not overly sensitive to reasonable variation of timing differences.

<i>Table 7: Under-investment in the grid</i>		
<i>ALLOCATIVE EFFICIENCY (GENERATOR MARKET POWER)</i>	Value	Units
Average price under strong competition	50	\$/MWh
Average volumes under strong competition	39,900	GWh pa
Mark-up on price under weak competition	2.75 to 5.5	%
Probability of under-investment	33	%
Years where transmission system differs between Arrangement and counterfactual	3 to 8	
NPV of DWL from higher price	1 to 4	\$M
<i>ALLOCATIVE EFFICIENCY (INCREASED RISK OF TRANSMISSION OUTAGES)</i>		
Probability of transmission outage	2	%
Cost of non-supply	12,000	\$/MWH
Volume of electricity lost	8,000	MWH
Probability that appropriate grid security is not achieved	10	%

Years where transmission system differs between Arrangement and counterfactual	3 to 8	
NPV transmission outages under Arrangement	\$0.5	\$m
<i>PRODUCTIVE EFFICIENCY (MANAGERIAL SLACK)</i>		
Cost of electricity output	784 to 851	\$m
Average efficiency loss under weaker competition	0.275 to 0.55	%
Probability of under-investment	33	%
Years where transmission system differs between Arrangement and counterfactual	3 to 8	
NPV of value loss under weaker competition	3 to 5	\$m
<i>PRODUCTIVE EFFICIENCY (CHOICE OF LOCATION FOR NEW INVESTMENT)</i>		
Production cost of new generation	175	\$m
Additional production cost if investment is inefficiently located	10	%
Likelihood that new investment is inefficiently located under Arrangement	5%	
Years where new transmission investment is required	3 and 7	
NPV of efficiency loss	\$5.4	\$m
<i>DYNAMIC EFFICIENCY</i>		
Cost of electricity output	784 to 851	\$m
Productivity gain under Arrangement	0.9 to 0.95	%
Productivity gain under counterfactual	1	%
Probability of under-investment in transmission	33	%
Years where transmission system differs between Arrangement and counterfactual	3 to 8	
NPV of dynamic efficiency loss under Arrangement	3 to 5	\$m
TOTAL DETRIMENT	13 to 20	\$m

Applicant's 'Wait and See' Approach

459 The Applicant argued that the Commission ought to take into account that any potential detriments arising from the Arrangement would be limited by the fact that the Minister would likely put in place a Crown EGB if it became apparent that pro-competitive and public benefit enhancing rules were being struck down. In weighing up the benefits and detriments, the Applicant argues that it is necessary to consider the influence of the Minister's attitude to competition in the assessment of benefits and detriments:

Because the proposed arrangement would not prevent regulatory action at a later date, and the propensity for strike down is highly uncertain, it makes sense for the Commission to authorise the proposed arrangement so that it becomes possible to observe whether a problem does exist under the new arrangement. Alternatively, if the Commission declines the Authorisation, the risk is that pro-competitive rule changes are thwarted by the transmission provider and system operator and that reversing out of the Crown EGB model would be much more difficult and potentially could be delayed indefinitely.⁹¹

⁹¹ Above n 59, 66-67.

- 460 The Commission notes that if it were to authorise the Arrangement, the threat of regulation remains. However, the Commission remains concerned that the threat of regulation, and the process and time within which regulation can come into effect, means that there is likely to be scope for incumbent generator/retailers to block pro-competitive and public benefit enhancing rule changes. Thus there could be a significant delay before the Crown EGB is put in place and in those circumstances, there may be an over-reaction by the Crown.
- 461 In order to grant an authorisation the Commission must be satisfied that the arrangement will in all the circumstances result, or be likely to result, in a benefit to the public which would outweigh the lessening in competition that would result, or would be likely to result. Although, authorisation on a ‘wait and see’ basis *may* result in a net benefit, the Commission must be *satisfied* that any Authorisation *will in all the circumstances result, or be likely to result, in a benefit to the public*. Hence, the Commission may only adopt a ‘wait and see’ approach where it is satisfied that under the various scenarios there is likely to be a benefit to the public which would outweigh the lessening in competition.

Balancing

- 462 In determining whether to grant the authorisation sought, the Commission must be satisfied that the Arrangement will, in all the circumstances result, or be likely to result, in a benefit to the public which would outweigh the lessening in competition which would result, or would be likely to result or is deemed to result therefrom.
- 463 A summary of the Commission’s views as to likely detriments and benefits if the Arrangement is put in place is shown in Table 8.

<i>Table 8: Summary of public benefits under the Arrangement</i>	
	NPV (\$ million)
Comparative advantage of Industry decision making	28 to 57
Lower lobbying costs	4 to 7
Avoidance of over-investment in transmission / crowding out of transmission substitutes	3 to 5
Competition in service provision	3 to 5
TOTAL BENEFIT	38 to 74
<i>Summary of public detriments under the Arrangement</i>	
	NPV (\$ million)
Under-investment in transmission	13 to 20

Strike-down of pro-competitive and public benefit enhancing rules	33 to 72
TOTAL DETRIMENT ⁹²	46 to 92

464 On the basis of the Commission’s analysis the impact of the Arrangement could range from a net benefit of \$28 million NPV to a net detriment of \$54 million NPV.⁹³ The Commission recognises that the analysis is based on a large number of assumptions about potential efficiency gains and losses. The Commission considers that it is inappropriate to rely completely on the quantitative estimates. However the Commission is mindful of the comment of the Court of Appeal where Richardson J stated:

“there is in my view a responsibility on a regulatory body to attempt so far as possible to quantify detriments and benefits rather than rely on purely intuitive judgement to justify a conclusion that detriments in fact exceed quantified benefits”.⁹⁴

465 On the evidence before it, the Commission is satisfied that there is a wide scope for the quantification of, and a conclusion on, both benefits and detriments. In this instance the Commission cannot be satisfied that there is a clear likelihood of a net benefit arising from the Arrangement.

466 The extent of the range of benefits and detriments is based on offsetting strengths and weaknesses of the Arrangement relative to the counterfactual. The Commission has considered the Arrangement as a whole. On the one hand, the industry is likely to have a comparative advantage in assessing the benefits of changes to the rules and in prioritising development of new rules that is more independent from the political process. On the other hand, the proposed voting entitlements provide the vertically integrated generator/retailers collectively with effective veto rights on pro-competitive and public benefit enhancing rule changes. The Part F arrangements may also lead to under-investment in the grid, which may lead to reduced competition in the generation market, resulting from transmission constraints.

467 On the basis of the Arrangement as presently formulated the Commission cannot be satisfied that the Arrangement would, in all the circumstances, result or be likely to result, in a benefit to the public that would outweigh the lessening in competition that would result, or would be likely to result or is deemed to result there from. The potential for conditions on an authorisation to alter the balance of detriments and benefits is considered below.

⁹² Figures have been rounded and may not sum exactly.

⁹³ Benefit and detriment ranges are calculated as follows: Net benefit = \$74 million – \$46 million; net detriment = \$92 million - \$38 million.

⁹⁴ *Telecom Corporation of New Zealand Limited v Commerce Commission* [1992] 3 NZLR 429, 447.

CONDITIONS

Introduction

468 Section 61(2) of the Act states:

“Any authorisation granted pursuant to section 58 of this Act may be granted subject to such conditions not inconsistent with this Act and for such period as the Commission thinks fit.”

469 In the Draft Determination the Commission signalled that it was considering whether, if it chose to authorise the Arrangement, it might be possible to impose conditions on the authorisation which would address concerns about any loss of competition, or any detriment, arising from the Arrangement. The Commission sought submissions from the parties on any such conditions.

470 On 6 June 2002, immediately prior to the Conference, the Applicant proposed certain conditions. The Commission circulated the Applicant's proposed conditions to interested parties, and a number of interested parties made submissions on them at the Conference.

471 Following the Conference, the Commission wrote to interested parties outlining a number of proposed conditions the Commission was considering, together with a proposal to grant an authorisation for a limited period of time. The Commission sought comment from the Applicant and interested parties. The Commission received eighteen responses and the Commission has taken these into account in this Determination.

472 The Commission is not satisfied that the benefits of the Arrangement as it stands outweigh the lessening of competition likely to result from the Arrangement. There are four areas where the Commission remains concerned that potential benefits of the Arrangement could be placed at risk. The areas for concern are:

- the process for achieving rule changes creates the opportunity for pro-competitive and public benefit enhancing rule changes to be blocked or delayed significantly;
- proposals for pro-competitive and public benefit enhancing rule changes could be voted down by the members;
- Part B is intended to address consumer interests but has not yet been drafted; and
- Part F creates a new and untested regime plus there is a risk of under-investment in transmission and grid security.

473 The Commission considers that these risks and the associated detriments can be significantly reduced by limiting the period of authorisation, and by the imposition of certain conditions. These are discussed separately below.

Condition One – rule changes

- 474 A number of parties submitted that under the rule making process in the Arrangement, proposed changes to the Rulebook which enhance competition and public benefits could be delayed or blocked by persons on working groups with vested interests. Those parties cited the experience of pro-competitive and public benefit enhancing rule changes being delayed in NZEM working groups and suggested that similar delays could arise under the Rulebook. Those parties indicated that they are in favour of a condition being attached to any authorisation which lessens the ability of working groups to obfuscate or block rule change proposals.
- 475 The Applicant, and parties in favour of the Application, submitted that, to the extent that there is potential for working groups to block rule changes without good reason, this can be addressed by the Industry EGB using its power to replace the working group. Those parties suggested that there would be a risk of inappropriate outcomes if rules are put to a vote without full consideration by an expert working group.
- 476 The Commission accepts that it would be generally desirable for proposed rule changes to be the subject of a full analysis by a working group. The Commission considers that it is also desirable, in the interests of competition and consumer welfare, for an additional check to be provided to deter the possibility of pro-competitive and public benefit enhancing rule changes being blocked or delayed. The Commission considers that this check can be achieved by providing the Industry EGB with a discretionary power to intervene to have the rule change put to a vote without the working group completing its consideration where this would avoid unnecessary delay.
- 477 The Commission envisages that in the great majority of cases the working group process will work as intended or, when it does not, the Industry EGB's ability to appoint a new working group will address most potential problems. Nevertheless, the Commission considers that the discretionary power given to the Industry EGB would provide a valuable additional check on the risk of undue delay or blockage.
- 478 As with the other conditions discussed below, the condition adopted by the Commission giving the Industry EGB this discretion is expressed in general terms. It remains for the industry to determine the wording of the rules to give effect to the condition and for the industry to determine the appropriate processes. The Commission anticipates that it will be advised on these details, and will provide assistance if clarification is sought. The Commission expects the Industry EGB to have unfettered discretion to put to a vote a rule change proposal which it considers is pro-competitive and public benefit enhancing and which it considers has been unduly delayed in the working group process. Further any processes adopted should not impede the expeditious consideration of a proposed rule change.

479 The Commission will impose the following condition to address this concern:

Prior to the Rulebook coming into effect, the Rulebook must be amended to include rules that provide that where the Electricity Governance Board established under the Rulebook (“the EGB”), in its discretion, considers that a proposal for a pro-competitive and public benefit enhancing rule change is being blocked or unduly delayed, the EGB may require that the proposal for such a rule change be put to a vote, notwithstanding that a working group has not completed its consideration of the proposed rule change.

Condition Two – EGB over-ride of industry vote

480 The Commission considers that the Arrangement as it stands allows for pro-competitive and public benefit enhancing rule changes being voted down by the members. This may occur when members that consider the proposed rule change is against their interests have the requisite majority share of the votes. The Commission attributes a significant detriment to this risk.

481 The Commission considers that an important safeguard against this risk is a discretion for the Industry EGB to over-ride the outcome of such votes. Accordingly the Commission will impose a condition to the authorisation which gives the Industry EGB discretion to over-ride a vote which rejects a pro-competitive and public benefit enhancing rule change.

482 The Commission recognises that there is a risk that if this discretion is used inappropriately it may lead to deficient rules and could undermine the standing of the governance arrangements. The Commission has confidence that processes can be introduced with sufficient checks to limit the possibility of the unwise use of this over-ride power.

483 The Applicant and others submitted that the body which determines whether the rule change proposal was pro-competitive and efficiency enhancing should be the Rulings Panel. The Commission has not included this in the condition. It considers that there may be a risk of the standing and independence of the Rulings Panel, in fulfilling its primary function, being adversely affected if it is also given that role. Ultimately it is a matter for the industry to effectively operationalise the conditions.

484 As with the first condition, the responsibility for drafting the requisite rules lies with the industry. The Commission would consider the condition not met if the rules precluded the expeditious consideration by the EGB of the use of its over-ride discretion. For example, a rule requiring a mandatory second vote before the discretionary power could be exercised would be unlikely to satisfy the condition.

485 The Commission will impose the following condition:

Prior to the Rulebook coming into effect, the Rulebook must be amended to include rules that provide that the EGB has the discretion to implement a pro-competitive and public benefit enhancing rule change when such a rule change has been rejected by a vote and an independent body chosen by the EGB considers that such a proposed rule change is pro-competitive and public benefit enhancing.

Condition Three - drafting of Part B

486 Part B of the Rulebook entitled “Consumer Issues” has not yet been drafted. Consumer groups have expressed concerns about the consumer section not being given a greater priority.

487 The Applicant has noted that an important purpose of Part B was to incorporate matters relating to the Electricity Complaints Commission scheme. All parties, including the Electricity Complaints Commissioner and consumer groups, now agree that the Electricity Complaints Commission scheme is operating satisfactorily and that it would be inappropriate to bring it within the ambit of the Rulebook. The Commission accepts this position.

488 The Commission considers, however, that there is potential for Part B to provide greater protection to consumers. The GPS refers to consumer issues where rules should be developed, including retailer insolvency, prepayment meters, and model contracts for domestic consumers. The Applicant accepts that rules could be developed in these areas that would have a net public benefit. The Commission notes that consumer groups also advocate that it is important for Part B to be completed.

489 In adopting the following condition, the Commission is not pre-determining the matters which should be covered by Part B. This is for the industry and consumer groups to determine. However, the Commission accepts that it is likely that there will be benefits from rules which deal with consumer issues and which are drafted in consultation with industry groups.

490 The Commission will impose the following condition:

That within 12 months from the date of authorisation the Rulebook must be amended to include in Part B of the Rulebook rules drafted in consultation with consumer groups to address consumer issues.

Condition Four - review of Part F

- 491 The Commission recognises that Part F is generally accepted as potentially providing valuable means to resolve difficult transmission investment problems. The Commission has identified some risk of under-investment in transmission and has attributed a significant detriment to this risk. The Commission also recognises that the Part F process is new and therefore untested in practice. There is a risk that difficulties may arise following implementation which the Commission has not currently identified.
- 492 The Commission considers that the risk of significant on-going detriment from Part F provisions are likely to be ameliorated if the effectiveness of Part F was subject to a review aimed at identifying any deficiencies in the Part F process. The Commission recognises that new transmission investments decisions are often slow to have effect and short-term reviews may not always identify long-term effects. The Commission considers that a review after one year may not allow adequate time for the processes to have had an effect. Three years risks too long a delay. The Commission considers a review after two years is desirable and is likely to be able to identify deficiencies.
- 493 The Commission will impose the following condition:

Prior to the Rulebook coming into effect, the Rulebook must be amended to include rules that require the EGB to commission an independent review on the efficacy of Part F, and to publish that review publicly within 2 years from the Rulebook commencement date.

Limited Period of Authorisation

- 494 The Commission considers that the untested nature of important elements of the Arrangement increases the risk associated with their implementation. Detriments may arise in a way that cannot be predicted in advance. The Commission has recognised this risk in its assessment of public benefits and detriments.
- 495 Should unforeseen detriments arise, or if identified detriments are greater than anticipated, the extent of the additional detriment can be limited by the Commission placing a finite period on the authorisation. For the Arrangement to continue beyond the period of authorisation, the Commission will need to be satisfied on a future application that the benefit to the public from the continuation of the arrangements would outweigh the detriments. When it considers such a future application, the Commission will have the benefit of having seen the Arrangement in practice.
- 496 The Commission recognises that if the period of authorisation is too long, there is a possibility of electricity consumers having to bear a significant cost from any defects in the Arrangement. On the other hand, too short a period could give rise to industry uncertainty and could invite strategic gaming as parties seek to obtain their preferred outcome following the Commission's consideration of the new application. Both could lessen efficiency and increase costs to consumers.

497 Having considered the submissions and various points of view on this matter, the Commission considers that the risk of detriments from the Arrangement is minimised by limiting the period of authorisation. This Authorisation expires:

- (a) on the fourth anniversary of the Rulebook commencement date; or
- (b) on 31 March 2007;

whichever is the earlier.

Conclusion on Impact of Conditions and Time Period

498 The Commission considers that the conditions and time period discussed above are likely to significantly reduce the risk of substantial detriments arising from the Arrangement. The Commission is satisfied that this reduction in risk shifts the balance of benefits and detriments to the extent that the Commission can be satisfied that the arrangements, with the conditions and limited time period, would result, or would be likely to result, in public benefits that would outweigh the competitive detriments.

OVERALL CONCLUSION

499 The Commission is satisfied that, with the imposition of the above conditions, the entering into, or the giving effect to the primary and secondary provisions of the Arrangement to which the Application relates, will in all the circumstances result, or be likely to result, in a benefit to the public which would outweigh the lessening in competition that would result, or is likely to result or is deemed to result therefrom.

DETERMINATION

500 Pursuant to s 61(1)(a) of the Act, the Commission grants authorisation for those persons who will become parties to the Arrangement (“the Parties”) to enter into the Arrangement and for the Parties to give effect to the primary and secondary provisions of the Arrangement set out in the attached Schedules 1 through to 7 subject to the conditions and for the period set out below.

501 The Commission declines to grant authorisation for the Parties to give effect to the ancillary provisions to the extent the ancillary provisions breach or might breach Part II of the Act.

CONDITIONS

502 This Authorisation is subject to the following four conditions imposed under s 61(2) of the Act:

Condition 1

Prior to the Rulebook coming into effect, the Rulebook must be amended to include rules that provide that where the Electricity Governance Board established under the Rulebook (“the EGB”), in its discretion, considers that a proposal for a pro-competitive and public benefit enhancing rule change is being blocked or unduly delayed, the EGB may require that the proposal for such a rule change be put to a vote, notwithstanding that a working group has not completed its consideration of the proposed rule change.

Condition 2

Prior to the Rulebook coming into effect, the Rulebook must be amended to include rules that provide that the EGB has the discretion to implement a pro-competitive and public benefit enhancing rule change when such a rule change has been rejected by a vote and an independent body chosen by the EGB considers that such a proposed rule change is pro-competitive and public benefit enhancing.

Condition 3

That within 12 months from the date of authorisation the Rulebook must be amended to include in Part B of the Rulebook rules drafted in consultation with consumer groups to address consumer issues.

Condition 4

Prior to the Rulebook coming into effect, the Rulebook must be amended to include rules that require the EGB to commission an independent review on the efficacy of Part F, and to publish that review publicly within 2 years from the Rulebook commencement date.

503 Pursuant to s 61(2) of the Act, this Authorisation expires:

- (a) on the fourth anniversary of the Rulebook commencement date; or
- (b) on 31 March 2007,

whichever is the earlier.

Dated 30 September 2002

MJ Belgrave
Chair

SCHEDULE 1**COMPREHENSIVE COVERAGE PROVISIONS**

The Comprehensive Coverage Provisions comprise the following primary provisions and secondary provisions:

Primary Provisions:

Rule	Subject matter
Part A, section IX	Rules for the provision of services to non-members
Part C, section III, rule 7	Equivalence arrangements and dispensations
Schedule C1	Approval of equivalence arrangements or grants of dispensation
Schedule C2	Approval of alternative ancillary services arrangements
Part G, section I, rule 3	Exemptions from full compliance for purchasers or generators
Part I, section II, rule 5	Transitional exemptions
Part I, section III, rule 2	Transitional dispensations

Secondary Provisions:

Rule	Subject matter
Part A, section I, rule 2	Every person who is a member of any other part or section of the Rulebook is also a member of part A.
Part A, section I, rule 7.4	Effective date for other rules
Part A, section I, rule 8	Participants must observe the rules
Part A, section III, rule 1	Admission rules
Part A, section III, rule 2	Resignation rules
Part A, section III, rule 3	Automatic suspension of trading
Part A, section V	Suspension
Part C, section II, rule 5	System operator will not contract contrary to the Arrangement
Part H, rule 15	Reporting obligations of clearing manager
Part I, rule 2	All persons who are members of part A are also members of part I

SCHEDULE 2**PRICE DETERMINATION PROCESS PROVISIONS**

The Price Determination Process Provisions comprise the following primary provisions and secondary provisions:

Primary Provisions:

Rule	Subject matter
Part A, section IX	Rules for the provision of services to non-members
Part F, section III	Rules for pricing transmission services
Part G, section IV	Pricing
Part H, rule 6.3	Setting price and quantity

Secondary Provisions:

Rule	Subject matter
Part A, section I, rule 8	Participants must observe the rules
Part A, section III, rule 3	Automatic suspension of trading
Part A, section V	Suspension
Part G, section II	Bids and offers
Part G, section III	Scheduling and dispatch
Part G, section V	Reconciliation
Part H, rule 10	Default
Part H, rule 15	Reporting obligations of clearing manager

SCHEDULE 3**UNIFORM STANDARDS PROVISIONS**

The Uniform Standards Provisions comprise the following primary provisions and secondary provisions:

Primary Provisions:

Rule	Subject matter
Part C, section II	Performance objectives of the system operator
Part C, section III	Asset owner performance obligations and technical standards
Part C, section IV	Arrangements concerning ancillary services
Schedule C1	Approval of equivalence arrangement or grant of dispensation
Schedule C2	Approval of ancillary services arrangement
Schedule C3	Technical codes
Part D	Metering arrangements
Part I, section II, rule 5	Transitional exemptions
Part I, section III, rule 2	Transitional dispensations

Secondary Provisions:

Rule	Subject matter
Part A, section I, rule 8	Participants must observe the rules
Part A, section III, rule 3	Automatic suspension of trading
Part A, section V	Suspension
Part H, rule 15	Reporting obligations of clearing manager

SCHEDULE 4**PERFORMANCE ASSURANCES PROVISIONS**

The Performance Assurances Provisions comprise the following primary provisions and secondary provisions:

Primary Provisions:

Rule	Subject matter
Part A, section III, rule 1	Admission rules
Part A, section III, rule 2	Resignation
Part A, section III, rule 3	Automatic suspension of trading
Part H, rule 2	Prudential requirements
Part H, rule 5	Additional security
Part H, rule 10	Default

Secondary Provisions:

Rule	Subject matter
Part A, section I, rule 8	Participants must observe the rules
Part A, section III, rule 3	Automatic suspension of trading
Part A, section V	Suspension
Part H, rule 15	Reporting obligations of clearing manager

SCHEDULE 5**TRANSMISSION SERVICE DEFINITION AND TRANSMISSION INVESTMENT PROVISIONS**

The Transmission Service Definition and Transmission Investment Provisions comprise the following primary provisions and secondary provisions:

Primary Provisions:

Rule	Subject matter
Part F, section I	Developing the service component of transmission contracts
Part F, section I, rule 6	Transpower to develop service delivery plan
Part F, section II	Service changes

Secondary Provisions:

Rule	Subject matter
Part A, section I, rule 8	Participants must observe the rules
Part A, section III, rule 3	Automatic suspension of trading
Part A, section V	Suspension
Part H, rule 15	Reporting obligations of clearing manager

SCHEDULE 6**COST ALLOCATION PROVISIONS**

The Cost Allocation Provisions comprise the following primary provisions and secondary provisions:

Primary Provisions:

Rule	Subject matter
Part A, section I, rule 3	Fees for rules
Part A, section II, rule 1.20	Members indemnify EGB
Part A, section II, rule 1.21	EGB's initial fees, annual business plan and budget
Part A, section II, rule 1.24	Payment of budgets by members
Part A, section IX, rule 3.2	Payment for assignment
Part A, section IX, rule 3.3	Levy
Part A, section IX, rule 4.3	Initial costs of claim
Part A, section IX, rule 4.4	Ongoing costs of claim
Part A, section IX, rule 6.3	Recovery of costs
Schedule A7	Schedule of fees payable by members
Part C, section I, rule 3	Fees for part C
Part C, section IV, rule 6	Allocating ancillary services costs
Part D, section II, rule 3	Fees for section II of part D
Part D, section III, rule 3	Fees for section III of part D
Part E, rule 1.4	Fees for part E
Part F, section I, rule 1.6	Fees for part F
Part G, section I, rule 5	Fees for part G
Part H, rule 1.3	Fees for part H
Part H, rule 13	Payment of fees, invoicing to be undertaken by clearing

	manager
Part I, section III, rule 1	Cost recovery for MACQS fees
Part I, section III, rule 2.5.4	Costs of transitional dispensations allocated amongst all asset owners
Part I, section IV, rule 4	Cost recovery for MARIA fees
Part I, section V, rule 4	Cost recovery for NZEM fees

Secondary Provisions:

Rule	Subject matter
Part A, section I, rule 8	Participants must observe the rules
Part A, section III, rule 3	Automatic suspension of trading
Part A, section V	Suspension
Part H, rule 10	Default
Part H, rule 15	Reporting obligations of clearing manager

SCHEDULE 7**INFORMATION DISCLOSURE PROVISIONS**

The Information Disclosure Provisions comprise the following primary provisions and secondary provisions:

Primary Provisions:

Rule	Subject matter
Part A, section VII	Information disclosure

Secondary Provisions:

Rule	Effect
Part A, section I, rule 8	Participants must observe the rules
Part A, section III, rule 3	Automatic suspension of trading
Part A, section V	Suspension
Part H, rule 15	Reporting obligations of clearing manager

APPENDIX 1: - INTERESTED PARTIES WHO MADE SUBMISSIONS AT CONFERENCE

- CC93
- Comalco New Zealand Limited
- Contact Energy
- Electricity Governance Board Limited
- Genesis Power Limited
- Market Surveillance Committee
- Meridian Energy Limited
- Major Electricity Users Group
- Mighty River Power Limited
- NZEM
- New Zealand Wind Energy Association
- Sustainable Energy Forum
- Todd Energy Limited
- Transpower New Zealand Limited
- WEL Networks Limited

APPENDIX 2 – GUIDING PRINCIPLES CONTAINED IN THE RULEBOOK

The Guiding Principles are that the rules should collectively:

FOSTER ECONOMIC WELFARE

Foster improvements in economic welfare by establishing market mechanisms and other processes for the supply and use of electricity and all related services that promote:

- the matching of supply to demand in all markets, in the sense that the quantity and quality (including reliability and security) of services in each market that purchasers in aggregate are willing to buy equals the amount that producers in aggregate are willing to sell at the specified price (and other agreed terms and conditions);
- individual decisions by entities on the purchase and supply of services that may be commercially or technically isolated to individual entities; collective decisions on price, quantity, quality, and other terms and conditions for services where transacting on a common basis would improve economic welfare; and Board decisions where this would improve economic welfare;
- the removal of all unjustifiable impediments to entry by new producers and users of services, to users switching between suppliers for services, and to the conduct of transactions between parties; and
- the allocation of controllable risk to those parties with the best abilities to balance off the relevant costs and benefits, and the allocation of residual uncontrollable risk in a manner that spreads risk at least cost overall.

PROMOTE EFFICIENT USE OF SCARCE RESOURCES

Promote efficient use of scarce resources in satisfying the electricity requirements of consumers through:

- the allocation of electricity, services related to the supply of electricity and resource inputs to their highest value uses consistent with sustainable development;
- processes that facilitate prices and charges trending toward the opportunity cost of resources; and
- the use of new technologies, renewable resources, distributed generation, and measures to enhance energy efficiency.

FOSTER COMPETITION

Where efficient, establish mechanisms and processes that foster competition in electricity services and services related to the supply of electricity and in particular foster competition:

- in the retail market by ensuring effective mechanisms exist for switching end-user consumers;
- in the wholesale market by ensuring that both buyers and sellers may interact effectively to establish market-clearing prices;
- between alternative trading arrangements; and
- for the provision of ancillary services and other services to the market.

FOSTER LEVELS OF PERFORMANCE DESIRED BY CONSUMERS

Foster levels of performance that the various classes of consumers desire and are prepared to pay for.

FAVOUR VOLUNTARY MEMBERSHIP

Ensure that membership of sections of the Rulebook is voluntary except where an improvement to economic welfare can be attained only from mandating membership. In particular, ensure that the scope of any mandatory sections:

- extends only so far as is necessary to achieve the identified improvements to economic welfare; and
- are reviewed regularly and evolve in a manner consistent with this principle.

FACILITATE DECISIONS ON COMMON SERVICES

Ensure that appropriate mechanisms and processes relating to common services are established and maintained to:

- enable collective agreement on the price, quantity, quality of supply, and other terms and conditions for the purchase of common services and the trade-offs between them;
- ensure that participants in collective decisions are those parties (or their representatives) who bear the costs and risks of such decisions; and
- reach agreement with suppliers of common services on the terms and conditions consistent with the objectives of users.

FACILITATE A ROBUST BUSINESS ENVIRONMENT

Ensure the rules are effective, transparent and commercially practical, in particular that actions are taken and information is made available and transferred in a timely and effective manner.

UNBIASED AND TRANSPARENT EVOLUTION

Ensure the process by which the rules evolve is transparent and not biased towards any person or practise, and in particular:

- limits the potential for any person to amend the rules in a manner that introduces unjustifiable bias; and
- balances the interests of all participants in the markets.

BE ROBUST AND ENFORCEABLE

Be robust and enforceable by providing for and maintaining a compliance regime that is neutral, independent and has sufficient authority to monitor and enforce the rules.

COMPLY WITH THE LAW

Comply with all relevant laws, and in particular the Act, the Electricity Act 1992 and both of those Act's amendments and successors.

APPENDIX 3 - ASSUMPTIONS AND DATA USED BY COMMISSION WHEN ASSESSING PUBLIC BENEFITS AND DETRIMENTS FROM THE ARRANGEMENT

Introduction

The Commission notes that there are considerable difficulties in measuring public benefits and detriments with any precision. That is particularly so in this case where there is a high degree of uncertainty about the evolution of the Rulebook under either the Arrangement or the counterfactual. Nevertheless the quantitative framework provides a basis for considering the magnitudes of various effects, even where there is a degree of uncertainty.

The Commission emphasises that this modelling exercise has been used to test a number of outcomes against possible and/or probable events and the assumptions made need to be considered in this light.

All calculations are net present value (NPV) based on an assumed discount rate of 10% over a time horizon of 10 years.

Strike down of pro-competitive rules

The Commission's assessment that the proposed arrangements could allow major vertically integrated generators to strike-down pro-competitive rules would be likely to lead to the following effects:

- Rules that enhance the ability of new generation to connect to the grid are not adopted. This leads to increased ability to raise electricity prices above costs over time (an allocative efficiency loss).
- Higher barriers to entry under the proposed arrangement lead to a one year delay in new investment. This leads to a small increase in the likelihood of generator market power in a dry year (allocative efficiency loss).
- Weaker competitive discipline places less pressure on generators to improve operating efficiency, this has a large cumulative effect over time (dynamic efficiency losses).

Higher electricity prices as a result of pro-competitive rules - assumptions and data

- average price of electricity \$50/MWh in the counterfactual;
- annual demand of 36,750 with 1.8% per annum demand growth;
- long run price elasticity of demand of -1.2, as per Murray and Hansen;
- long-run supply elasticity of 0.5, as per Murray and Hansen, for volumes less than 36,750 GWh. Supply costs for volumes in excess of 36,750 GWh are constant at \$50/MWh, implying a stepped supply curve; and

- prices rising by 0.5 – 1% in year one to 5 – 10% in year ten, relative to the counterfactual.

Delayed investment as a result of higher entry barriers for new generation relative to the counterfactual is modelled as a higher probability of supply short-falls in years 3 and 7, which in turn would lead to an increase in generator market power. This is assumed to lead to sustained increases in electricity prices over winter months. The deadweight-loss calculation is based on the following assumptions:

- in a dry winter prices increase to average \$250/MWh over winter, under the proposed arrangements, relative to \$80/MWh in the counterfactual;
- short-run demand elasticity of -0.05 , as per Murray and Hansen;
- marginal costs of \$80/MWh in a dry winter;
- a 5% probability of a dry winter; and
- new investments are required to maintain 1 in 60 year security of supply in years 3 and 7.

As a result of greater generator market power, productive and dynamic efficiency is likely to fall as a result of reduced competitive discipline. Calculation of the lower level of productive and dynamic efficiency in the proposed arrangements is based on the following data and assumptions:

- productive efficiency falls behind the efficient frontier, with efficiency declining linearly relative to the counterfactual. Inefficiency increases from 0.05 %-0.1% in year one to 0.5%-1.0% in year ten in the proposed arrangements;
- productivity growth in the counterfactual is assumed to be 1% per annum and falls to 0.9-0.95% per annum under the proposed arrangements; and
- inefficiency is assumed to affect the cost of generation output, which is based on volumes at the higher prices that would result from reduced competitive discipline. Supply costs are based on 65% of year one generation (36,750 GWh) being provided by low cost hydro at \$5/MWh. The remaining volume is provided by higher cost thermal at \$50/MWh.

Comparative advantage of industry decision making over Crown EGB/Ministerial decision making

The likely comparative advantage of industry arrangements for rule making would result in higher productive and dynamic efficiency relative to the counterfactual. Productive and dynamic efficiency calculations are based on the following assumptions and data.

- generation of 36,750 GWh in year 1, rising 1.8% per annum⁹⁵;

⁹⁵ Forecast by Ministry of Commerce (2000) *Energy Outlook to 2020*.

- annual production costs of \$760 million in year one, rising to \$1,080 million in year 10. This is based on production costs⁹⁶ of \$5/MWh for 65% of year one generation (i.e. low production cost hydro) and \$50/MWh for thermal production. Additional generation beyond year one is assumed to be from additional gas-fired generation, costing \$50/MWh;
- productive efficiency falling behind the efficient frontier in the counterfactual, with inefficiency rising linearly relative to the proposed arrangements. The efficiency range is 0.05% – 0.1% in year one rising to 0.5% – 1.0% in year 10; and
- slower growth in productivity, falling from 1% per annum in the proposed arrangements to between 0.95% and 0.90% per annum in the counterfactual.

Lobby costs

The Commission considers that centralised decision-making in the Crown EGB is likely to invite a greater degree of lobbying than under the Arrangement. The additional costs are quantified as:

- additional employment in the energy sector of 5 – 10 people; and
- employment costs of \$120,000 per annum per additional employee.

Competition for service provider roles

The Commission considers that there may be less pressure on a Crown EGB to make the system operator role contestable than under the proposed arrangements. As a result the benefits of contestability would be less likely in the counterfactual. A lack of competition for the system operator role would result in productive and dynamic inefficiency in the provision of these services in the counterfactual. Calculations of the economic impacts are based on the following assumptions and data:

- annual system operator revenues of \$40 million per annum. Operating costs are 32% of this total, as per Murray and Hansen;
- additional system operator costs of 1-2% in year one, rising to 5-10% in years 5 and beyond without contestability;
- a reduction in productivity gains from 1% per annum with system operator contestability to 0.9-0.95% per annum without contestability; and
- a 50% probability of the system operator role being made contestable in the proposed arrangements and 10% in the counterfactual.

Over-investment in transmission

The Commission considers that potential for over-investment in the grid and potential crowding out of transmission substitutes may occur in the counterfactual if Part F rules place

⁹⁶ Rather than opportunity costs.

greater responsibility for investment decision-making in the hands of the EGB. This would likely result in productive inefficiency in investment and operation of the grid, and dynamic inefficiency in operation of the grid through over-investment and crowding out of transmission substitutes. The Commission's estimates of these effects are based on the following data and assumptions:

- Transpower spends approximately \$100 million per annum on grid investment, including replacement;
- Transpower receives approximately \$440 million per annum in transmission revenues;
- any potential over-investment would occur in years 3-8;
- a 33% probability that Part F rules change to place greater responsibility for investment decision-making in the hands of the EGB;
- productive inefficiency in transmission investment is assumed to be 0.5 – 1.0% per annum in years when transmission investment rules differ between the Arrangement and counterfactual;
- potential for productive inefficiency in transmission operating costs is assumed to be 0.1% – 0.2% in year three, rising to 0.6% – 1.2% in year eight then falling in years nine and ten as the rules in the arrangement and counterfactual converge; and
- potential for productivity gains in transmission operating costs is assumed to be 1% per annum and 0.9 to 0.95% in years where there is greater influence of the EGB in investment decisions.

Under-investment in the grid

The Commission considers that there is greater probability of under-investment in the grid under the Arrangement. This would arise through less timely changes to the Part F rules under the Arrangement compared with the counterfactual. As a result there would be greater likelihood of transmission constraints, which would make it more likely that generators achieve localised positions of market power. Accordingly, there would be an increase in electricity prices and less competitive pressure to minimise costs and improve productivity. The Commission also considers that there is a greater likelihood that investments to ensure appropriate security of supply would not be made under the proposed arrangements. The following detriments would arise:

- Higher electricity prices (allocative efficiency loss);
- Decrease in productive and dynamic efficiency in the generation market;
- Increased likelihood of transmission outages (allocative efficiency loss); and
- Increased likelihood of inefficient location of new investment (productive efficiency loss)

Higher electricity prices – assumptions and data

- average price of electricity \$50/MWh;
- annual demand of 36,750 with 1.8% per annum demand growth;
- long run price elasticity of demand of -1.2, as per Murray and Hansen;
- long-run supply elasticity of 0.5, as per Murray and Hansen, for volumes less than 36,750 GWh. Supply costs for volumes in excess of 36,750 GWh are constant at \$50/MWh, implying a stepped supply curve;
- 33% probability the Part F rules fail to provide adequate transmission investments to resolve constraints;
- prices rising by 0.5-1% in year one to 4-8% in year eight in the Arrangement if Part F is deficient in resolving transmission investment decisions; and
- prices rising by 0.5-1% in year one to 1-2% in year two in the Arrangement if initial arrangements for investment decision-making by the Crown EGB are deficient in resolving transmission investment decisions.

As a result of greater generator market power arising from transmission constraints, productive and dynamic efficiency are likely to fall as a result of reduced competitive discipline. The lower levels of productive and dynamic efficiency in the Arrangement are based on the following data and assumptions:

- should the initial rules for transmission investment decision-making prove deficient, productive efficiency falls behind the efficient frontier, with efficiency declining linearly. Inefficiency increases from 0.05 %-0.1% in year one to 0.4%-0.8% in year eight in the Arrangement and from 0.05 %-0.1% in year one to 0.1%-0.2% in year two in the counterfactual;
- the potential for productivity growth is assumed to be 1% per annum. If the transmission investment rules prove deficient productivity growth falls behind potential to 0.9-0.95% per annum in the Arrangement in years 1 to 8 and to 0.9% to 0.95% in the counterfactual in years 1 and 2;
- inefficiency is assumed to affect the cost of generation output, which is based on volumes at the higher prices that would result from reduced competitive discipline. Supply costs are based on 65% of year one generation (36,750 GWh) being provided by low cost hydro at \$5/MWh. The remaining volume is provided by higher cost thermal at \$50/MWh; and
- there is a 33% probability of initial rules for transmission investment proving deficient.

As a result of under-investment in grid security, there is a higher likelihood of transmission outages. This would result in allocative inefficiency, and is modelled on the following data and assumptions:

- a 2% increase in the probability of an outage, as a result of under-investment;
- assume total outages of 8,000 MWh;
- cost of non-supply is \$12,000/MWh;
- avoided supply costs of \$50/MWh; and
- 10% probability that the Part F rules would prove deficient in providing adequate security investment.

As a result of under-investment in the grid, the Commission considers that there would be a greater likelihood of inefficient location of new generation. This is modelled as a reduction in productive efficiency in the proposed arrangements according to the following data and assumptions:

- new investments are required in years 3 and 7. They are base-load generation and have a supply cost of \$50/MWh. Each plant is assumed to be 400MW capacity;
- a 10% locational inefficiency factor is assumed; and
- a 5% probability that an inefficient location is selected is assumed. The low probability reflects the constraints on potential sites for new generation, in particular access to fuel (e.g. hydro catchments, gas pipelines etc).

Appendix 3: Quantification of benefits and detriments

The tables below correspond to the summary tables in the public benefit and detriments analysis above. Each table sets out the annual efficiency gains and losses and the potential range of such benefits and detriments. Benefits and detriments have been calculated over ten years using a net present value basis with an assumed discount rate of 10%. Relevant formulae behind the calculations of allocative, productive and dynamic efficiency are set out in Murray and Hansen (2001), p68 to 81.

As in previous authorisations the Commission has expressed a potential range for benefits and detriments. These are nominally titled “low” and “high” in the following tables.

Detriments associated with strike-down of pro-competitive and public benefit enhancing rules

Increase in generator market power – allocative inefficiency (table 1)											
Year	1	2	3	4	5	6	7	8	9	10	
Average price under strong competition	50	50	50	50	50	50	50	50	50	50	\$/MWh
Average quantity under strong competition	36,750	37,412	38,085	38,770	39,468	40,179	40,902	41,638	42,388	43,151	GWh
price elasticity of demand LR	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	
Price elasticity of supply LR	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
Mark-up on price under weak competition (low)	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	%
Average quantity under weak competition (low)	36,530	36,963	37,399	37,840	38,284	38,732	39,184	39,640	40,099	40,562	GWh
Marginal cost at new quantity (low)	49.4	50	50	50	50	50	50	50	50	50	\$/MWh
DWL from higher price under weaker competition (low)	0.1	0.1	0.3	0.5	0.7	1.1	1.5	2.0	2.6	3.2	\$m
NPV (low)										5.8	\$m
Mark-up on price under weak competition (high)	1	2	3	4	5	6	7	8	9	10	%
Average quantity under weak competition (high)	36,309	36,514	36,714	36,909	37,100	37,286	37,466	37,641	37,810	37,973	GWh
Marginal cost at new quantity (high)	48.8	49.4	49.9	50	50	50	50	50	50	50	\$/MWh
DWL from higher price under weaker competition (high)	0.4	0.7	1.1	1.9	3.0	4.3	6.0	8.0	10.3	12.9	\$m
NPV (high)										23.5	\$m

Reduced competition in generation market - dynamic inefficiency (table 1)

Year	1	2	3	4	5	6	7	8	9	10	
Generation costs (low mark-up on price)	752	773	795	817	839	862	884	907	930	953	\$m
Productivity gain with industry supervision	1.00	2.01	3.03	4.06	5.10	6.15	7.21	8.29	9.37	10.46	%
Productivity gain under a Crown EGB (low)	0.95	1.91	2.88	3.85	4.84	5.84	6.84	7.86	8.88	9.92	%
Difference in productivity level (low)	0.05	0.10	0.15	0.21	0.26	0.31	0.37	0.43	0.49	0.55	%
Dynamic efficiency gain (low)	0.4	0.8	1.2	1.7	2.2	2.7	3.3	3.9	4.5	5.2	\$m
NPV (low)										13.4	\$m
Generation costs (high mark-up on price)	741	751	761	771	780	789	798	807	816	824	\$m
Productivity gain with industry supervision	1.00	2.01	3.03	4.06	5.10	6.15	7.21	8.29	9.37	10.46	%
Productivity gain under a Crown EGB (high)	0.90	1.81	0.0272	3.65	4.58	5.52	6.47	7.43	8.40	9.37	%
Difference in productivity level (high)	0.10	0.20	0.31	0.41	0.52	0.63	0.74	0.85	0.97	1.09	%
Dynamic efficiency gain (high)	0.7	1.5	2.3	3.2	4.1	5.0	5.9	6.9	7.9	9.0	\$m
NPV (high)										24.2	\$m

Comparative advantage of industry decision-making**Production efficiency - electricity generation market (Table 2)**

Year	1	2	3	4	5	6	7	8	9	10	
Generation costs	763	796	829	864	898	934	970	1,007	1,044	1,083	\$m
Productive efficiency (low)	0.05	0.1	0.15	0.2	0.25	0.3	0.35	0.4	0.45	0.5	%
Value (low)	0.4	0.8	1.2	1.7	2.2	2.8	3.4	4.0	4.7	5.4	\$m
NPV (low)										14	\$m
Productive efficiency (high)	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	%
Value (high)	0.8	1.6	2.5	3.5	4.5	5.6	6.8	8.1	9.4	10.8	\$m
NPV (high)										28	\$m

Dynamic efficiency - electricity generation market (Table 2)

Year	1	2	3	4	5	6	7	8	9	10		
Generation costs		763	796	829	864	898	934	970	1,007	1,044	1,083	\$m
Productivity gain under proposed arrangements	1.00	2.01	3.03	4.06	5.10	6.15	7.21	8.29	9.37	10.46		%
Productivity gain under a Crown EGB (low)	0.95	1.91	2.88	3.85	4.84	5.84	6.84	7.86	8.88	9.92		%
Difference in productivity level (low)	0.05	0.10	0.15	0.21	0.26	0.31	0.37	0.43	0.49	0.55		%
Dynamic efficiency gain(low)	0.4	0.8	1.3	1.8	2.3	2.9	3.6	4.3	5.1	5.9		\$m
NPV (low)											15	\$m
Productivity gain under proposed arrangements	1.00	2.01	3.03	4.06	5.10	6.15	7.21	8.29	9.37	10.46		%
Productivity gain under a Crown EGB (high)	0.90	1.81	2.72	3.65	4.58	5.52	6.47	7.43	8.40	9.37		%
Difference in productivity level (high)	0.10	0.20	0.31	0.41	0.52	0.63	0.74	0.85	0.97	1.09		%
Dynamic efficiency gain(high)	0.8	1.6	2.5	3.6	4.7	5.9	7.2	8.6	10.1	11.8		\$m
NPV (high)											29	\$m

Lobby costs (Table 3)

Year	1	2	3	4	5	6	7	8	9	10		
Lobby cost (low)	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6		\$m
NPV of lobby cost (low)											3.7	\$m
Lobby cost (high)	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2		\$m
NPV of lobby cost (high)											7.4	\$m

Contestable system operation role

Contestable contracts for system operator services – productive efficiency (table 4)

Year	1	2	3	4	5	6	7	8	9	10	
Annual cost of service without contestability	40	40	40	40	40	40	40	40	40	40	\$m
Operating costs as a percent of total costs	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	%
Reduced operating cost with contestability (low)	1	2	3	4	5	5	5	5	5	5	%
Efficiency gains (low)	0.3	0.5	0.8	1.1	1.3	1.3	1.3	1.3	1.3	1.3	\$m
NPV (low)										2.4	\$m
Reduced operating cost with contestability (high)	2	4	6	8	10	10	10	10	10	10	%
Efficiency gains (high)	0.5	1.1	1.6	2.1	2.6	2.6	2.6	2.6	2.6	2.6	\$m
Probability of contestability under proposal										50	%
Probability of contestability under counterfactual										10	%
NPV (high)										4.7	\$m

Contestable contracts for system operator services – dynamic efficiency (table 4)

Year	1	2	3	4	5	6	7	8	9	10	
Annual cost of service with contestability	40	40	40	40	40	40	40	40	40	40	\$m
Productivity gain with contestability (cumulative)	1.00	2.01	3.03	4.06	5.10	6.15	7.21	8.29	9.37	10.46	%
Productivity gain without contestability (cumulative) (low)	0.95	1.91	2.88	3.85	4.84	5.84	6.84	7.86	8.88	9.92	%
Difference in productivity level (low)	0.05	0.10	0.15	0.21	0.26	0.31	0.37	0.43	0.49	0.55	%
Dynamic efficiency gain (low)	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	\$m
NPV (low)										0.2	\$m
Productivity gain with contestability (cumulative) (high)	1.00	2.01	3.03	4.06	5.10	6.15	7.21	8.29	9.37	10.46	%
Productivity gain without contestability (cumulative) (high)	0.9	1.81	2.72	3.65	4.58	5.52	6.47	7.43	8.40	9.37	%
Difference in productivity level (high)	0.10	0.20	0.31	0.41	0.52	0.63	0.74	0.85	0.97	1.09	%
Dynamic efficiency gain (high)	0.0	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.4	0.4	\$m
Probability of contestability under proposal										50	%
Probability of contestability under counterfactual										10	%
NPV (high)										0.5	\$m

Over-investment in transmission, crowding out transmission substitutes

Over-investment in transmission – productive efficiency (table 5)

Year	1	2	3	4	5	6	7	8	9	10	
Annual investments (incl replacement)	100	100	100	100	100	100	100	100	100	100	\$m
Investment inefficiency (low)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	%
Capital over-expenditure under a Crown EGB (low)			0.5	0.5	0.5	0.5	0.5	0.5			\$m
Probability that transmission investment rules prove deficient										33	%
NPV (low)										0.6	\$m
Investment inefficiency (high)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	%
Capital over-expenditure under a Crown EGB (high)			1.0	1.0	1.0	1.0	1.0	1.0			\$m
Probability that transmission investment rules prove deficient										33	%
NPV (high)										1.2	\$m

Transmission costs – crowding out of transmission substitutes – productive inefficiency (table 6)

Year	1	2	3	4	5	6	7	8	9	10	
Current annual transmission costs	440	440	440	440	440	440	440	440	440	440	\$m
Operating costs as a percent of total costs	32	32	32	32	32	32	32	32	32	32	%
Operating efficiency under proposed arrangements (low)			0.1	0.2	0.3	0.4	0.5	0.6	0.5	0.4	%
Reduction in operating costs (low)	0.0	0.0	0.1	0.3	0.4	0.6	0.7	0.8	0.7	0.6	\$m
Probability that transmission investment rules prove deficient										33	%
NPV (low)										0.7	\$m
Operating efficiency under proposed arrangements (high)	0	0	0.2	0.4	0.6	0.8	1	1.2	1	0.8	%
Reduction in operating costs (high)	0.0	0.0	0.3	0.6	0.8	1.1	1.4	1.7	1.4	1.1	\$m
Probability that transmission investment rules prove deficient										33	%
NPV (high)										1.4	\$m

Transmission costs – crowding out of transmission substitutes - dynamic efficiency (table 6)

Year	1	2	3	4	5	6	7	8			
Current annual transmission costs	440	440	440	440	440	440	440	440	440	440	\$m
Potential for productivity gains	1.00	2.01	3.03	4.06	5.10	6.15	7.21	8.29	9.37	10.46	%
Productivity gain under a Crown EGB (low)	1.00	2.01	2.98	3.96	4.94	5.94	6.95	7.96	9.36	10.45	%
Productivity gain under a Arrangement (low)	1.00	2.01	3.03	4.06	5.10	6.15	7.21	8.29	9.04	10.13	%
Difference in productivity level (low)	0	0	0.05	0.10	0.16	0.21	0.27	0.32	0.32	0.33	%
Dynamic efficiency gain (low)			0.2	0.5	0.7	0.9	1.2	1.4	1.4	1.4	\$m
Probability that transmission investment rules prove deficient										33	%
NPV (low)										1.3	\$m
Productivity gain with industry supervision	1.00	2.01	3.03	4.06	5.10	6.15	7.21	8.29	9.36	10.44	%
Productivity gain under a Crown EGB (high)	1.00	2.01	2.93	3.85	4.79	5.73	6.68	7.64	8.71	9.79	%
Difference in productivity level (high)	0.10	0.20	0.10	0.21	0.31	0.42	0.53	0.64	0.65	0.65	%
Dynamic efficiency gain (high)			0.5	0.9	1.4	1.9	2.3	2.8	2.9	2.9	\$m
Probability that transmission investment rules prove deficient										33	%
NPV (high)										2.5	\$m

Under-investment in transmission**Reduced competition in the electricity market – allocative inefficiency (table 7)**

Year	1	2	3	4	5	6	7	8	9	10	Units
Average price under strong competition	50	50	50	50	50	50	50	50	50	50	\$/MWh
Average quantity under strong competition	36,750	37,412	38,085	38,770	39,468	40,179	40,902	41,638	42,388	43,151	GWh
Price elasticity of demand LR	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	
Price elasticity of supply LR	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
Average quantity under weak competition (low)	36,530	36,963	37,399	37,840	38,284	38,732	39,184	39,640	40,099	40,562	GWh
Mark-up on price under weak competition (low)	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	%
Marginal cost at new quantity (low)	49.4	50	50	50	50	50	50	50	50	50	\$/MWh
DWL from higher price under weaker competition where there are differences between the Arrangement and counterfactual (low)			0.3	0.5	0.7	1.1	1.5	2.0			\$m
Probability that Part F rules prove deficient										33	%
NPV (low)										1.1	\$m

Average quantity under weak competition (high)	36,309	36,514	36,714	36,909	37,100	37,286	37,466	37,641	37,810	37,973	GWh
Mark-up on price under weak competition (high)	1	2	3	4	5	6	7	8	9	10	%
Marginal cost at new quantity (high)	48.8	49.4	49.9	50	50	50	50	50	50	50	\$/MWh
DWL from higher price under weaker competition where there are differences between the Arrangement and counterfactual (high)			1.1	1.9	3.0	4.3	6.0	8.0			\$m
Probability of under-investment										33	%
NPV (high)										4.4	\$m

Reduced competition in the electricity market – productive inefficiency (table 7)

Year	1	2	3	4	5	6	7	8	9	10	
Value of electricity output under the proposal (with low mark up on price)	752	773	795	817	839	862	884	907	930	953	\$m
Efficiency losses under weaker competition (low)	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.45	0.50	%
Value loss under weaker competition where there are differences between Arrangement and counterfactual (low)			1.2	1.6	2.1	2.6	3.1	3.6			\$m
Probability of under-investment										33	%
NPV (low)										2.7	\$m
Value of electricity output under the proposal(with high mark up on price)	741	751	761	771	780	789	798	807	816	824	\$m
Efficiency losses under weaker competition (high)	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00	%
Value loss under weaker competition where there are differences between Arrangement and counterfactual (high)			2.3	3.1	3.9	4.7	5.6	6.5			\$m
Probability of under-investment										33	%
NPV (high)										4.9	\$m

Inefficient location of new generation (table 7)

Year	1	2	3	4	5	6	7	8	9	10	
Efficient production cost of new generation	-	-	175	175	175	175	350	350	350	350	\$m
Locational inefficiency											10 %
Probability that inefficient location is selected										5	%
Inefficiency of new generation	-	-	0.9	0.9	0.9	0.9	1.8	1.8	1.8	1.8	\$m
NPV										5.4	\$m

Greater risk of transmission outages – allocative inefficiency (table 7)

Year	1	2	3	4	5	6	7	8	9	10	
Probability of transmission outage										2	%
Cost of non-supply										12,000	per MWh
Avoided generation cost										50	Per MWh
Volume of electricity lost										8,000	per day
Cost of non-supply			1.5	1.5	1.5	1.5	1.5	1.5			\$m
Probability of transmission outages resulting from deficient Part F rules										10	%
NPV of transmission outage										0.5	\$m

Reduced competition in generation market - dynamic efficiency (table 7)

Year	1	2	3	4	5	6	7	8	9	10	
Probability that Part F rules prove deficient										33	%
Generation costs (with low mark-up on price)	752	773	795	817	839	862	884	907	930	953	\$m
Potential for productivity gains	1.00	2.01	3.03	4.06	5.10	6.15	7.21	8.29	9.37	10.46	%
Productivity gain with weak competition in generation market under arrangement(low)	0.95	1.91	2.88	3.85	4.84	5.84	6.84	7.86	9.37	10.46	%
Productivity gain with weak competition in generation market under counterfactual (low)	0.95	1.91	3.03	4.06	5.10	6.15	7.21	8.29	9.37	10.46	%
Difference in productivity level (low)			0.15	0.21	0.26	0.31	0.37	0.43	0	0	%
Dynamic efficiency gain (low)			1.2	1.7	2.2	2.7	3.3	3.9			\$m
NPV (low)										2.8	\$m
Probability that Part F rules prove deficient										33	%
Generation costs (with high mark-up on price)	741	751	761	771	780	789	798	807	816	824	\$m
Productivity gain with strong competition in generation market	1.00	2.01	3.03	4.06	5.10	6.15	7.21	8.29	9.37	10.46	%
Productivity gain with weak competition in generation market under arrangement(high)	0.90	1.81	2.72	3.65	4.58	5.52	6.47	7.43	9.37	10.46	%
Productivity gain with weak competition in generation market under counterfactual (high)	0.90	1.81	3.03	4.06	5.10	6.15	7.21	8.29	9.37	10.46	%
Difference in productivity level (high)			0.31	0.41	0.52	0.63	0.74	0.85			%
Dynamic efficiency gain (high)			2.3	3.2	4.1	5.0	5.9	6.9			\$m
NPV (high)										5.1	\$m