

**Grey Power**

NEW ZEALAND FEDERATION INCORPORATED



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**GREY POWER SUBMISSION ON**  
**GOVERNMENT POLICY STATEMENT ON**  
**ELECTRICITY GOVERNANCE**

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To

**MINISTRY OF ECONOMIC DEVELOPMENT**

**March 2009**

**This submission has been prepared by members of the Grey Power Energy Portfolio.**  
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## **INTRODUCTION**

This submission is made on behalf of the Grey Power Federation of New Zealand which currently has over 90,000 members. We are also supported in our endeavors on behalf of domestic consumers by Age Concern, The Royal New Zealand Returned Services Association and The Consumer's Institute. In this regard it is estimated that this group represents over 300,000 domestic consumers directly and also indirectly the views of many others. We must emphasise that domestic sector accounts for over 34% of the electricity used in New Zealand and provides 46% of the revenue. Therefore as such they are entitled to full consideration as substantial stakeholders in the electricity market.

# GOVERNMENT POLICY STATEMENT ON ELECTRICITY GOVERNANCE

February 2009

## Foreword

The Government established the Electricity Commission in 2003 with the principal objectives of ensuring that electricity is produced and delivered to all classes of consumers in an efficient, fair, reliable and environmentally sustainable manner and promoting and facilitating the efficient use of electricity.

The Electricity Act 1992 (s172N) sets the principal objectives for the Electricity Commission and the specific outcomes that the Commission must seek to achieve. An extract of s172N is attached as an appendix to the GPS.

This Government Policy Statement sets out the objectives and outcomes the Government wants the Commission to give effect to. It is made pursuant to s172ZK of the Electricity Act 1992 and replaces all previous Government Policy Statements on Electricity Governance.

For the avoidance of doubt, the Government Policy Statement does not include the Foreword.

Hon Gerry Brownlee  
Minister of Energy

## Minister of Energy and Resources

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## 1. Commission's powers and approach

1. The Commission should work with stakeholders including consumers, market participants and Government agencies to achieve its objectives.

How does it propose to work with domestic consumers to achieve its objectives which stress "fairness", "environmentally sustainable" maintaining downward pressure on prices, and "promoting efficient use of electricity"? Suppliers and major electricity users cannot provide that input on behalf of domestic consumers.

2. In particular, whenever possible, the Commission should use its powers of persuasion and promotion, and provision of information, guidelines and model arrangements, to achieve its objectives rather than recommending regulations and rules.

Does it persuade and promote to Market Participants only?

The "regulation and rules" referred to are mainly about electricity market design. These rules determine the degree to which suppliers can compete (or cooperate) with each other, and also the degree to which energy efficiency and alternative fuels can find a place in the market. The market design has, to date, been modified over successive years to effectively exclude small players in the market (Bertram 2006).

Deregulation does not work as has been demonstrated in America and which is currently under close scrutiny by recognized specialists. Deregulation has resulted in price increases rising faster and in excess of regulated areas. The [Electricity](#) Commission must be made into a regulating body with the power and expertise to regulate the market firmly and fairly without Government interference. (Trebing H M "A Critical Assessment of Electricity and Natural Deregulation") More comment needed here about the time and cost of the present system whereby the Commission has to exhaust all possibilities before RECOMMENDING regulation.

The

Commission should monitor compliance with these guidelines and model arrangements and recommend regulations or rules if voluntary arrangements prove unsatisfactory.

3. The Government recognises that clear and effective regulations and rules are required in many key parts of the market. Accordingly, the Commission has powers under the Electricity Act 1992 to make recommendations to the Minister of Energy concerning new or amended regulations and rules. The Commission should be prepared to use these powers fully where required to achieve the Government's policy objectives.

**Consultation:** @The old "fair" consultation processes were deficient; consultation according to the new GPS will be empty from the perspective of domestic consumers, as they will have no engagement in policy formation.

4. Where the Commission proposes guidelines or model arrangements, new regulations or rules, or substantial changes to existing regulations or rules, it should follow good processes. This includes identification of the main options, assessment of costs and

benefits, and consultation with and exposure of its analyses to affected parties.

*To date, consultation with domestic consumers has not influenced what matters most to them, the levels of electricity prices.*

*In a new Commission, without advisory groups, @domestic consumers will have no forewarning of policy changes, nor means of engaging with industry on policies, industry and other*

**When recommending regulations or rules it is required by the Act to satisfy itself – but how?**

*Only from the perspective of Market Participants, in whose interests the Commission has acted to date - that other options (such as information, education and voluntary arrangements) are unlikely to satisfactorily achieve the Government's objectives.*

5. The Government expects the Commission to maintain a protocol on its consultation processes.

6. The Commission should actively consult with the Ministry of Consumer Affairs when pursuing outcomes which directly impact on small consumers.

*The Ministry of Consumer Affairs has no relevant expertise in electricity market rules. It is important to consult them on terms and conditions of consumer contracts, but the matters of greatest relevance are about prices, not contract conditions. Where will Consumer Affairs get impartial advice in regard to domestic consumers?*

~~() Suggest delete PDR~~

## ~~Advisory groups~~

~~7. The Commission should make extensive use of advisory groups wherever possible to develop industry arrangements and make recommendations concerning regulations and rules. These advisory groups should have the necessary expertise and be appropriately representative of affected parties, including consumers. The Commission should consider providing limited funding assistance for consumer representatives where it considers that this may improve the quality of decisionmaking.~~

## Innovation

7. The Commission should keep in mind the importance of encouraging innovation. It should therefore consider, when deciding how best to deliver on its objectives, any trade-offs between certainty and clarity on the one hand and encouraging and allowing scope for innovation on the other. ~~Don't include this comment in submission~~

## Information

8. High quality information is essential for efficient markets. The Commission should give high priority to ensuring that relevant information is made available to market participants **and to the public at large on matters relating to the electricity sector.**

*“Note the public at large” is retained. We agree information must be available to the public at large, but how will the new Commission find what domestic consumers want or need?*

## Administration of regulations and rules

9. The Commission has responsibility for monitoring compliance, investigating alleged breaches and if necessary, taking enforcement action in relation to regulations and rules, particularly:

- Electricity Governance Regulations 2003
- Electricity Governance Rules 2003
- Electricity (Low Fixed Charge Tariff Option for Domestic Consumers) Regulations 2004
- Electricity Governance (Connection of Distributed Generation) Regulations 2007 and for any subsequent amendments to these regulations and rules.

Commission [should have autonomous power on these issues](#)

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**Omits section on NZES, NZEECS**  
**(previously section 6)**

## Background

10. A key priority of the Government is to maintain security of electricity supply. Shortage risks and periods of high spot prices need to be well managed to ensure that businesses and the wider community have confidence in ongoing security of supply. In the Government's view, security of supply is vital to achieving its objective of sustainable economic development.

**Transpower should be the central capacity planning authority calling tenders for new generation and planning its own capacity requirements**

## Key requirements of security of supply

11. Key requirements for security of supply, and confidence in security of supply, are that:

- sufficient generation capacity is built or energy efficiency improvements made to meet ongoing demand **growth [growth of generation and transmission unconstrained by efficiency investment will be funded by mainly mass-market consumers, while offering “competitive” (cheap) electricity to competitive consumers – exacerbating the present cross-subsidy.**
- hydro and thermal generating capacity and fuels are appropriately managed, to deal with the risk of shortages, including extended dry hydro periods
- the system has sufficient capacity (plant and fuel and/or **demand response**) to cope with extreme dry sequences, periods of low wind speed and other unexpected supply disruptions.

**–Analyses in the past (Concept, 2004) have said that demand response from the domestic sector has the lowest economic cost – this has been confirmed in discussions at Transpower briefings on the demand bidding for security of supply last year. But the industry has made no attempt to “acquire” this cost-effective demand response – they are happy with “conservation campaigns” begging consumers to save electricity, with no financial reward.**

**A paper given by Jonathan Lermitt to the Otago University’s Wellington School of Medicine and Health Sciences, 18 February 2009, finds that domestic consumers saved an estimated 7% of their normal electricity**

use during June and July 2008, while the savings from all consumers were approximately 3-4%.

- quality information and forecasts of thermal fuel availability, the hydro system (including lake levels and spill), wind flows and generation capacity are available
- the national grid and distribution lines meet specified reliability objectives. (Transmission and distribution issues are covered in separate sections)
- opportunity exists for electricity consumers to manage exposure to high spot prices. (Hedge market transparency and liquidity are covered in separate sections.)

## **Security of supply objective for the Electricity Commission**

12. A function of the Commission under the Electricity Act 1992 (s172O) is to use reasonable ~~endeavours~~endeavors to ensure security of supply, without assuming any demand

reduction from emergency conservation campaigns, while minimising distortions to the normal operation of the electricity market.

13. To provide a measure of security of supply, to date government policy has been to assess security of energy supply against a “1 in 60 dry year” standard. Following a substantive review of the reserve energy policy in 2007, the “1 in 60 dry year” is replaced by a standard expressed in terms of “winter energy margin” (the margin between forecast capacity to supply in a mean hydro year and forecast demand).

~~I believe Brownlee has stated he intends to modify these standards: will Will the GPS be subsequently changed to include the new standards?~~

14. Accordingly, to meet the security of supply objective, the Commission should use reasonable endeavours to ensure that the generation and transmission system is capable of maintaining a mean winter energy margin of 17 percent for New Zealand overall, and 30 percent for the South Island. This new standard will provide a level of security similar to the 1 in 60 standard, but provides a measure that is clearer, and easier to calculate and understand.

15. The Commission should also develop and set security standards for adequacy of capacity to meet peak demand.

16. The Commission should work with stakeholders to identify industry contingencies, and develop strategies consistent with the operation of the electricity market to manage supply and demand during such contingencies.

~~Domestic consumers are the ones who get cut off when “AUFLS events happen. They must be part of the security DESIGN, not just left to “consult” on pre-determined options.~~

## **Security of supply policy**

17. The Commission should have, and publish, a security of supply policy. The security of supply policy should include:

- the information and forecasts to be made available
- details of how the Commission will monitor energy margins during the year and whether the market will deliver adequate new capacity

- the procurement and utilisation policies for reserve energy
- the steps that the Commission will take at various stages during a contingent event such as an extended dry sequence, and the emergence of risks relating to peak capacity.

18. The objective of publishing the policy is to provide a high degree of certainty to market participants about how the Commission intends to meet its security of supply objectives.

*The present security of supply policy is basically flawed; it assumes water will be managed according to merit-order principles (to maximize the national interest, as was done by ECNZ – the “Minzone” model is based on the ECNZ/ NZED model.*

*In fact, the generators are evidently managing the resources to maximize profitability – as their shareholders will require. This is acting in the commercial interest of each generator - it creates less security and higher spot prices than would be the case if the national interest criteria were followed.*

*Any new rules for security of supply must be based on real, observed behaviourbehavior, or else behaviourbehavior must be modified through regulation to require actions that do promote the national interest.*

19. The Commission should have, and publish, protocols to manage potential conflicts between its roles as a contractor for reserve energy and as a regulator.

### **Information, forecasting and monitoring**

20. The Commission should undertake and publish detailed supply and demand ~~modelling~~ modeling and forecasting at least annually. The objective is to provide well researched

information on both short-term and long-term security of supply, including the likely availabilities of fuels and new generation options under various scenarios.

21. To establish the need for additional reserve energy (see below), the Commission should look out 3 to 5 years (given consent and construction timelines for new capacity), collect information, develop a baseline that makes assumptions about which known projects are likely to proceed, and identify any "shortfalls" year by year.

22. The Commission is expected to be active in monitoring resource availability to meet demand and, in particular, determining whether the market is consistently failing to deliver new capacity sufficient for an adequate energy margin and to meet peak demand.

23. If the Commission determines that the market is consistently failing to deliver sufficient capacity, it should use the powers available to it to make recommendations to the Minister on any arrangements or policies that it considers necessary to provide better outcomes.

*Yes, arrangements and policies in which domestic consumers are treated as stakeholders.*

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### **Hydro storage guidelines**

24. To help ensure security of supply, the Commission should develop and publish a set of hydro storage guidelines providing its estimate of the hydro storage levels that reflect different levels of shortage risk. These guidelines should take into account the expected availability and use of thermal generation, transmission constraints and other factors that may impact upon security of supply.

25. As part of the hydro storage guidelines, the Commission should have an emergency storage guideline that would trigger a range of emergency response measures, including a conservation campaign. The emergency storage guideline should be set

on the basis that there is a significant probability that emergency blackouts may be required if other emergency response measures are not put in place.

**Reserve energy** see above under “security”

26. If the New Zealand or South Island mean year energy margin is unlikely to be met by market participants, the Commission should contract for, but not own, reserve energy (generation and contracted demand response) to maintain the desired energy margin. This is to be the Commission’s primary means of meeting its security of supply objective.

27. Any reserve energy procured to ensure security of supply should also be available to help cope with other unexpected supply contingencies, such as serious grid, plant or fuel supply disruptions.

28. In contracting for reserve energy the Commission should seek to:

- minimise the risk that reserve energy affects the incentives for market participants to:

- respond to higher prices
- construct new capacity
- enter into hedge and other contracts
- invest in demand-side management
- maximise static and dynamic efficiency.

29. Contracted demand response should form part of the Commission’s portfolio of reserve energy, provided this is practicable and the Commission is confident that the reduction in demand is additional to normal demand-side responses to higher prices.

30. Reserve energy should be offered to the system operator for dispatch at 20c/kWh or the contracted variable payment rate, whichever is the higher.

31. The Commission should determine, for each contracted form of reserve energy, a storage guideline level at which it would expect reserve energy to be operating. If storage falls below a particular storage guideline level, and the relevant reserve energy is not being dispatched, the Commission may choose to offer that reserve energy for dispatch at a lower price in order to preserve hydro storage and to reduce shortage risks.

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32. If the hydro storage guidelines are consistently breached and thermal generation is not being used appropriately to preserve hydro storage, the Commission should investigate the reasons and consider what action, if any, would be desirable.

### **Emergency management**

33. Although the Government wants the Commission to guide the electricity sector to ensure minimal risk of supply shortages, it recognises that there will be infrequent circumstances where there is a material risk of shortage. To manage such circumstances, the Commission should establish an emergency response plan that identifies and includes a range of measures to cover contingencies more severe than those allowed for within the mean winter energy margin. Such measures are to include conservation campaigns.

34. The Commission is also expected to put in place contingency arrangements to provide for the scheduling of outages, including rolling outages in the extreme event that blackouts are required to ensure a balance between supply and demand.

### **Levy**

35. The Commission should receive any spot price revenue arising from the dispatch of reserve energy. Net costs should be recovered by way of the levy on wholesale purchases.

36. Over time, the levy should recover the net costs that the Commission incurs for reserve energy (that is, operating and capital payments less any revenue received

from the sale of reserve energy).

## Review

37. The Commission should undertake a review, in consultation with interested parties, of the security standards and policies set out in this section, and make recommendations to the Minister of Energy on the outcome of that review by the end of 2012.

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## 3. Consumer protection

### Domestic consumer contracts

38. The Commission should ensure that the terms and conditions of contracts between domestic consumers and electricity retailers (and where applicable, contracts between domestic consumers and electricity distributors) reflect the reasonable expectations of consumers.

39. The Commission should ensure the following matters are addressed in contracts:

- transparency of charge components.

*This has been consistently rejected by retailers; how are domestic consumers going to have their interests protected? This is a case in point in regard to the time and money wasted trying to get co-operation without regulation. Transparency of charge components has been pressed @by domestic consumer representatives, without success, since the first attempts to derive model domestic contracts started in 1998*

- frequency of billing

- company-specific arrangements for dispute resolution
- arrangements for informing consumers about planned outages
- arrangements for the benefit of low-income domestic consumers as described below.

40. The Commission should have regard to any provision by the Commerce Commission requiring distribution businesses to engage with local communities on the trade-offs they wish to make concerning price, quality and reliability of supply.

41. The Commission should, in consultation with the Ministry of Consumer Affairs and other relevant interested parties, ensure that terms and conditions remain effective and up-to-date with current market issues.

### Low fixed charges

42. The Low Fixed Charge regulations were introduced in 2004 with the purpose of assisting low-use domestic consumers and encouraging energy efficiency. Prior to their introduction, low-use consumers in many areas faced unreasonably high fixed daily charges for their electricity usage. The introduction of the regulations provided these low-use consumers with a tariff option that was more equitable for low energy usage and compatible with the Government's energy efficiency objectives.

43. The Commission is charged with monitoring compliance and enforcing the Electricity (Low Fixed Charge Tariff Option for Domestic Consumers) Regulations 2004 and any subsequent amendments.

*DEUN Grey Power does not consider this regime to reflect the real differences in different regions – both climate and income – see Bob Lloyd's analysis of energy poverty by region. Inverse step tariffs would do far more than "low fixed charges" to reduce the burden of electricity prices on low-income consumers – while*

*retaining the marginal price signal that is needed to discourage excessive electricity use – use which is increasing most rapidly in the coldest regions.*

## **Arrangements for the benefit of low income and vulnerable domestic consumers**

44. The Commission should monitor compliance with the Guideline on arrangements to assist low income and vulnerable consumers<sup>6</sup> issued in July 2007, to ensure that:

<sup>6</sup><http://www.electricitycommission.govt.nz/pdfs/opdev/retail/lowincome/guidelines-low-income-2Jul07.pdf>  
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- consumers who may have difficulty paying their bills on time are advised by retailers of the budgeting and other advice and assistance available from Government agencies and community service organisations
- retailers are required to consult with the Ministry of Social Development about possible assistance for vulnerable consumers where, in spite of the retailer's assistance, the consumer is unable to pay, and that there is no disconnection while that consultation is occurring
- any consumer who is dependent on electricity for critical medical support will not be disconnected for reasons of non-payment
- clear guidelines or standards exist for disconnections following non-payment in order to avoid the costs of frequent disconnections and reconnections
- there is regular communication with all consumers on their payment options
- debt recovery is arranged in a time-frame that avoids an adverse credit situation for the retailer and minimises hardship for the consumer
- consumers enter into the most appropriate contracts for their needs
- consumers are given the opportunity to identify themselves as potentially vulnerable
- where the consumer has not responded to any of the notices sent by the retailer, and the retailer has been unable to contact the consumer, there is a visit to a consumer's home before disconnection for non-payment takes place.

45. The Commission should consider options such as pre-payment meters, alternative payment options (such as advance payments, more frequent payments or smoothed payments) and bonds. The Government considers that, in principle, bonds should not exceed the value of one month's electricity consumption by an average household.

## **Arrangements in the event of retailer insolvency**

46. The Commission should establish arrangements to ensure an orderly transition for consumers in the event that a retail company becomes insolvent.

## **Consumer complaints resolution system**

47. Section 158G(1) of the Electricity Act requires that every electricity distributor and every electricity retailer must participate in a complaints resolution system, provided that the Commission has approved one or more complaints resolution systems under that section.

48. The Government expects everyone (including potential consumers and owners and occupiers of land), in their capacity as producers or consumers of electricity, to have access to an independent and cost-effective system for resolving complaints about electricity distributors (including Transpower) and electricity retailers without charge to the user/applicant, whether or not they have a consumer contract with the retailer or distribution company.

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49. The Commission should, in consultation with the Ministry of Consumer Affairs, ensure

that any approved system adequately addresses consumers' interests.

50. The Government believes that consumers' best interests are more likely to be served by a single independent complaints resolution scheme that includes both electricity and gas. The reason for this is that a single dual-fuel scheme provides benefits such as ease of access, consistency of outcomes and efficiencies of scale. The size of the gas market does not justify a separate scheme and many of the same companies are involved in both sectors. Many customers buy electricity and gas from the same retailer.

51. The Commission should work closely with the Gas Industry Company and coordinate approaches to approval and governance of an electricity and gas consumer complaints scheme.

52. If the industry is unable to provide an acceptable scheme supported by membership from all retailers and all distributors (including Transpower) within a reasonable time, the Commission should recommend regulations to introduce a statutory scheme. Again, the Government expects the Commission to work closely with the Gas Industry Company in this regard.

53. The Government expects any approved complaints resolution system to include the following features:

- an independent complaints resolution scheme that is consistent with international best practice in the field of consumer complaints resolution systems (for example the Australian Benchmarks for Industry based Consumer Dispute Resolution Schemes<sup>7</sup> which were developed in consultation with the New Zealand Ministry of Consumer Affairs)
- a decision-making process and administration of the scheme that is independent of scheme members
- membership by all distributors (including Transpower) and retailers
- robust internal complaints-handling processes within all member companies
- a document that sets out the minimum standards of conduct for scheme members
- self-funding by the industry
- compensation for consumers where appropriate
- is practical and resolves disputes quickly and cost-effectively without unduly protracted or costly processes.

<sup>7</sup> The Australian benchmarks are: accessibility, independence, fairness, accountability, efficiency and effectiveness.

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## 4. Electricity efficiency

~~61. Maximising the contribution of cost-effective energy efficiency and conservation is a key~~

~~means to achieving the vision set out in the NZES for a reliable, resilient system delivering New Zealand sustainable, low-emissions energy services. A principle of the NZES is that investment in energy efficiency measures should occur where this is cheaper than the long-term costs of building extra generation and network capacity, including environmental costs. Energy efficiency measures are described in more detail in the NZEEGS which identifies the main measures, policy instruments and responsibility for implementation.~~

54. Electricity efficiency and demand side management help reduce demand for electricity, thereby reducing pressure on prices, scarce resources and the environment. The Commission should **ensure that it gives full consideration to the contribution of the demand side** as well as the supply side in meeting the Government's electricity objectives.

-No mechanism for doing so.

55. As part of its research and information activities, the Commission, in conjunction with EECA, has undertaken a comprehensive review of the potential of electricity efficiency to contribute cost-effectively to achievement of the Government's electricity objectives, including estimating the level of investment required to realise this potential. This work should continue.

*This section refers to the KEMA report, which was done entirely in-house with no consultation. The assumptions are generally unrealistic and the conclusion is that domestic electricity savings are generally too costly. This is out of step with conclusions in many overseas studies – see reports by ACEEE and Regulatory Assistance Project, @ as noted in DEUN's ETS submission.*

56. A number of Government agencies have responsibilities that support improved energy efficiency in the stationary energy demand sector. These include EECA, the Commission, MED, MfE, MAF, DBH and Housing New Zealand Corporation. It is the government's intention that EECA be the primary service delivery agency for energy efficiency programmes in this sector.

57. EECA and the Commission have a common objective: to promote the use of electricity in an efficient and environmentally sustainable manner. In undertaking its electricity efficiency activities, the Commission should work closely with EECA. It is important that the Commission's activities complement the work of EECA and that duplication of effort is avoided. Through its membership of the Senior Energy Officials Group, the Commission will work with the group to develop priority energy efficiency programmes and will reflect this in its work programme to promote the efficient use of electricity.

58. EECA has expertise in the management of energy efficiency programmes. The Commission should draw on this expertise in designing, administering and delivering its programmes, consistent with the principles of paragraph 33, and good procurement practice. This will promote concentration of expertise and coordination of effort. As EECA builds its capability in a wider range of areas, EECA will work as the delivery agent for more actions developed and funded by the Commission.

59. All purchases by the Commission of services from EECA should be formalised in contracts which should be made available on the Commission's website.

60. The Government notes that the two agencies have developed a Memorandum of Understanding outlining how they will work together. The Government requests that this memorandum be reviewed to clarify the respective roles of each agency and to reflect the arrangements above.

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## Discount rate

69. The Government has adopted a discount rate of 5 percent real per annum for cost benefit

analyses of energy efficiency and other measures under the NZES and NZEECS. This lower discount rate reflects the long-term nature of benefits, including those designed to address climate change and other environmental externalities.

70. The Commission should include an assessment using a 5 percent real per annum discount rate, and to advise how this has been taken into account, when assessing the cost-effectiveness of electricity efficiency programmes or arrangements.

*Removal of the section on discount rate 5% means the longer-term benefits of energy efficiency will be ignored.*

## **Other arrangements and programmes**

61. The Commission should also put in place arrangements and programmes to promote efficiency in the following components of the electricity sector:

### **Generation**

62. Hydro, thermal and other fuels resources should be used efficiently in the generation of electricity. Disclosure of information, such as the amount of and reason for hydro spill, is expected to help avoid unnecessary waste of resources.

### **Conveyance**

63. Electricity should be conveyed efficiently on the national grid and distribution lines. Transmission and distribution companies should have incentives to manage transmission and distribution losses and constraints. The Commission should promote pricing structures that provide appropriate signals to manage those losses and constraints.

### **End-use**

64. The Commission should promote and facilitate the efficient use of electricity by end users. It should pursue this objective in multiple and mutually-reinforcing ways, including:

- by providing financial incentives for investment in electricity efficiency where it is cost-effective to do so and in response to market failures and barriers
- by promoting cost-reflective pricing

*This is critical, and is consistently ignored, especially in transmission pricing, which promotes remote generation at the expense of local generation to local users.*

- by seeking innovative ways to enable residential and other consumers to respond to pricing incentives to use electricity more efficiently
- by facilitating the progressive introduction of advanced/smarter meters for consumers, through publishing technical guidelines, and reporting on the need for regulations by December 2009
- by encouraging and facilitating demand-side participation in the wholesale, distribution and retail markets
- by promoting the efficient use of load management.

*Load management is generally being used less. Rapid increase in MW and kWh demand from heat pumps in some locations (Christchurch is an exception because it had a lot of night-storage heating which is now being replaced by heat pumps) – this rapid increase in MW demand especially could be modified by thermostatically controlled appliances put under ripple control. There is greater use of night store South Canterbury and below*

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## **5. Renewable energy**

75. Encouraging the development of renewable energy resources is a key part of the Government's NZES for managing climate change and long-term energy security. A principle of the NZES is that for the foreseeable future it is preferable that all new electricity generation be renewable, except to the extent necessary to maintain security of supply. The Government has set a target for 90 per cent of electricity to be generated from renewable sources by 2025.

65. Investment co-ordination can be particularly problematic for renewable generation because such generation is often remote from existing load centres and major transmission lines, and individual renewable generation plant is typically small relative

to the size of the regional demand.

66. The Government's objectives in relation to renewable electrical energy are that:

- undue barriers to investment in renewables should be reduced or removed
- the efficient uptake of renewable generation should be promoted
- the national transmission grid should be planned and made available so as to facilitate the potential contribution of renewables to the electricity system
- the specification of the grid planning processes and approval criteria should allow grid upgrade plans to facilitate the efficient and timely development of renewable generation resources, taking into account any difference in lead times for transmission and generation investment.

### ***Integration issues***

*78. The Commission should investigate the extent to which hydro and other generation sources can be integrated fully with intermittent wind generation in order to ensure that the maximum economic potential of wind generation can be achieved. This work should also include consideration of the changing role of older thermal generation*

*plant. Integration issues has been deleted =*

*yet is still an important issue; how will it be integrated into the electricity market?*

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## **6. System operation and wholesale and related markets**

67. The Commission should promote and facilitate efficient and well-functioning markets and related arrangements for:

- common quality and real-time security
- dispatch and pool rules
- reconciliation and settlement
- information disclosure to improve market efficiency, including:
  - aggregate hedge and contract prices and volumes
  - offers by generators
- minimum prudential standards
- hedge market transparency and liquidity.

### **Transmission risk management**

68. The Commission should oversee the development of arrangements that will enable market participants to manage financial risk in respect of transmission losses and constraints.

69. The product developed should include the following broad principles:

- realistic long-term risk management mechanisms should be made available to all parties that face financial risks arising from spot price effects caused by transmission losses and constraints;
- economic efficiency, including the integrity of price signals, should be maintained or improved; and
- solutions should be pragmatic and not overly complex to use.

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## **7. Transmission Background**

70. The way in which transmission services are provided and priced impacts both directly and indirectly on all parts of the electricity industry, the economy and the environment.

Transmission has strong natural monopoly characteristics, which make it important that the Government sets out its policy expectations as to how transmission services should be provided and priced and how Transpower should operate.

## **Objectives for the provision of transmission services**

71. The Government's objectives for the provision of transmission services are that:

- the services are provided in a manner consistent with the Government's policy objectives for electricity, and in particular, that grid reliability should be maintained at a level required by residential, commercial and industrial users and by the Government's economic development objectives
- the transmission grid should be adequately resilient against the effects of low probability but high impact events having regard to the load which could be disrupted and the duration of any disruption
- where practicable, the transmission grid should provide adequate supply diversity to larger load centres, having regard to the load which could otherwise be disrupted and the duration of any disruption
- efficient competition in generation and retail is facilitated and transmission constraints are minimised
- the national transmission grid should be planned and made available so as to facilitate the potential contribution of cost-effective renewables to the electricity system, and in a manner that is consistent with the Government's climate change and renewables policies
- the efficiency of transmission services should be continuously reviewed and improved so as to produce the services that grid users and consumers want at least cost
- the services are priced in a manner that:
  - is transparent
  - fully reflects their costs including risk
  - facilitates nationally efficient supply, delivery and use of electricity
  - promotes efficient investment in transmission or transmission alternatives
  - promotes nationally efficient use of transmission services by grid users and consumers
- stakeholders and the public are kept well informed about how agreed minimum levels of grid reliability are to be maintained throughout the development and consideration of any grid upgrade plans.

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## **Connection to and use of the national grid**

72. The national grid is essential to all connected parties, and should be maintained and operated to a common set of grid reliability standards. These common standards should be embodied in rules that recognise the interconnected nature of the network.

73. Grid reliability standards should apply to agreements between Transpower and its customers dealing with connection to and use of the grid, investment planning (including replacement), transmission system design and construction, and transmission system maintenance.

74. The common standards for the grid should be determined by the Commission, following consultation with Transpower and affected parties. The Commission should, from time to time, review the standards to ensure that they promote a secure and reliable grid and that the interests of end-customers are properly taken into account.

75. Transpower's customers should be permitted some flexibility over standards (which could be higher or lower than the norm), so long as the integrity of the core grid is not compromised. The Commission should ensure that arrangements are in place to protect the interests of third parties when Transpower and one of its customers agree

to a local variation from common standards.

76. All transmission customers should be required to have a transmission agreement with

Transpower, and the Commission-developed benchmark agreement is the default agreement if the parties are unable to agree.

## **Investment in and maintenance of the transmission network**

77. As part of its modeling and forecasting work, the Commission should provide for the development of statements of opportunities relating to transmission. These should:

- incorporate electricity demand and supply forecasts
- enable identification of potential opportunities for:
  - efficient management of Transpower's transmission network including investment in system expansions, replacements and upgrades
  - transmission alternatives (notably investment in local generation, [demandsidedemand side](#) management and distribution network augmentation)
- facilitate long-term planning for timely securing of easements and resource consents, including to facilitate the connection of renewables.
- be prepared at least every two years.

78. Transpower should develop and submit grid upgrade plans to the Commission for approval.

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79. Any grid upgrade plan submitted by Transpower should be as comprehensive as possible, ideally covering and identifying the relationships between short, medium and longer term proposals, except where urgency is required for individual projects. The [rigour](#) of analysis supporting projects should be reasonable given the size of the project. This will better enable consideration of the interrelationships between projects and the wider synergies of the grid, including facilitating renewables, least cost provision of new generation and increased competition between generators. It will also enable consideration of investment proposals for the grid as a whole within a longer term framework (for example, over five years).

80. Unless otherwise agreed by the Commission, grid upgrade plans should also be consistent with the statement of opportunity forecasts and wider Government energy policy, including applicable policies on renewable generation and climate change.

81. Grid upgrade plans should demonstrate the rationale for all expenditure (operational, maintenance and capital), taking into account the prescribed reliability standards and good industry practice for power system operation. The plans should demonstrate that the proposed expenditure is required to meet these standards and/or deliver the greatest net benefit after taking into account transmission alternatives and Government energy policy requirements to the extent achievable.

82. In the development of grid upgrade plans; the Government's objective is that:

- Transpower should undertake the detailed planning role (including the assessment of both transmission and transmission alternatives); and
- the Commission should, without undue delay, review and approve grid upgrade plans that meet the criteria set out in the Electricity Governance Rules, and reject applications that fail them.

83. The Commission should make available to Transpower and other stakeholders clear and specific policies and processes relating to how grid upgrade plans in general, and any particular plan specifically, will be developed, and then reviewed and approved or rejected. These criteria should be clearly explained so that the review process and linkages to other processes such as the statement of opportunities are transparent

and can be understood and the analysis can be replicated by stakeholders.

84. The Commission should ensure that affected parties are fully consulted on grid upgrade plans.

85. Transpower should be able to seek a determination from the Commission on updated

grid upgrade plans in response to events that significantly affect any capital investment already approved under a grid upgrade plan.

86. Where the Commission approves a grid upgrade plan, the full costs associated with implementing the grid upgrade plan should be recoverable by Transpower in accordance with the pricing methodology determined by the Commission.

### *Investment in minor transmission works*

*This section gives a free-ride for transmission projects worth less than \$20 million, meaning Transpower does not have to consider transmission alternatives. More transmission will be built than would be the case in more sophisticated overseas regimes that give more cognisance to network-driven demand side management. @Peter, I would retain this: "network-driven DSM is jargon but well understood by the industry."*

*87. The Government's objective in relation to the investment in and maintenance of the transmission network is to put in place a more streamlined process for the approval by*

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*the Electricity Commission of grid upgrades by Transpower where the total cost of a project is less than \$20M.*

*88. For all future small projects which cost less than \$20M the Government seeks the following outcomes:*

- Transpower should develop and submit upgrade plans to the Commission for approval.*
- Grid upgrade plans should demonstrate the rationale for all expenditure (operational, maintenance and capital), taking into account good industry practice for power system operation.*
- In developing grid upgrade plans Transpower should undertake the detailed planning role; it should consult with materially affected parties, and have regard to all submissions or objections received prior to submitting the grid upgrade plan to the Commission.*
- Once the Commission has received a grid upgrade plan the Commission should approve the plan without undue delay provided it is satisfied that Transpower has complied with the requirements above.*
- The Commission should not be required to assess and evaluate the merits of small investment plans of a value less than \$20 million.*
- If Transpower wants to amend an approved grid upgrade plan it should follow the same process unless the total project cost under the amended plan exceeds \$20M. In that case, the standard process, as outlined in paragraphs 78 to 86, should apply.*

### **Planning ahead**

89. The Government is concerned to ensure that the necessary planning and securing of consents (or designations) and land access rights for investments in the transmission

system will meet needs.

90. The Commission should encourage Transpower to identify and secure appropriate interests in land, designations and resource consents required for transmission corridors well in advance of urgent needs. Transpower should be able to recover the reasonable net costs of doing this work.

91. The risks to maintaining grid reliability resulting from uncertainties in demand forecasting and easements should be conservatively managed.

92. This should help the essential process of maintaining stakeholder confidence in ongoing security of electricity supply even if, at times, there is some loss of flexibility around investment choices and some additional cost for electricity consumers.

**This section @is an important policy driver: it acknowledges that policy will improve security, and accepts the resulting increased financial cost. There will also be increased environmental costs.**

## Environmental effects

93. Final environmental requirements are determined by consenting authorities under the

Resource Management Act 1991 which provides the statutory framework for dealing with environmental effects.

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94. To the extent that the Commission considers the environmental effects of new lines proposed by Transpower in a grid upgrade plan, it should also take into account any longer term benefits that larger capacity lines may provide by avoiding multiple smaller lines. ~~That seems reasonable.~~

## Transmission alternatives

95. As part of the consideration of transmission investments *where the total cost of a project is more than \$20M*, the Commission should ensure that transmission alternatives are considered to the extent practicable subject to the following conditions: **Important! TX alternatives don't have to be considered for most TX investments, only the very largest ones.**

- only alternatives which have a high probability of proceeding, and where reliability can be maintained by contingency measures if the alternative is delayed or does not proceed, should be considered;
- alternatives which are only likely to proceed if they are assisted financially by the Government or relevant body should not be considered unless the Government or relevant body has agreed to provide such assistance.

96. As part of its consideration of transmission pricing, the Commission should consider whether there would be net benefits in providing for a mechanism whereby investments in transmission alternatives receive payments reflecting some or all of the value of avoided transmission investment. This is a complex subject, and the Commission will need to take into account, amongst other things, practicalities, effects on incentives to invest in alternatives, and the extent of assurance that grid reliability standards will be met.

## Pricing for connection to and use of the national grid

97. Transpower should determine its total revenue requirement (covering both sunk and new investments) subject to the constraints of the Commerce Act 1986. A transmission pricing methodology should determine how this total revenue is recovered from parties under the agreements for connection to and use of the grid.

## Cost recovery and pricing principles

98. The Government expects transmission services to be priced as efficiently as possible and, subject to the Commerce Act 1986, Transpower's charges to recover the full economic costs of its services.

99. The Commission should ensure that the following principles are applied by Transpower in developing any transmission pricing methodology, and by the Commission in approving it:

- the costs of connection should as far as possible be allocated on a user-pays Basis

- the pricing of new and replacement investments in the grid should provide beneficiaries with strong incentives to identify least-cost investment options, including distributed generation, energy efficiency and demand management options, and combinations of those options. This is retained, good. It appears to apply to small as well as large TX investments. But how will small players monitor and influence the implementation of this?

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- pricing for new generation and load should provide clear locational signals
- sunk costs should be allocated in a way that minimises distortions to production/consumption and investment decisions by grid users and consumers
- the overall pricing structure should include a variable element that reflects the marginal costs of supply in order to provide an incentive to minimise grid constraints.

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## 8. Distribution

### Pricing methodologies

This, as well as transmission pricing, is very important; domestic consumers need to have their interests represented by expert participation in these pricing design processes.

100. The Commission should develop, in consultation with interested parties, principles or

model approaches to distribution pricing and monitor their uptake. The Commission should recommend regulations if required to ensure compliance. As part of this work the Commission should investigate barriers to demand side participation.

101. The diversity and complexity of the terms and conditions offered by different lines companies for use of their lines is often cited as a significant barrier to expansion of retail competition. The Commission should consider whether standardisation and simplification of tariff schedules and contractual arrangements would facilitate market entry by retailers.

102. The Government expects distribution companies to keep any changes to rural line charges in line with changes to urban line charges. The Commission should monitor developments in rural charges.

### Use of system agreements

103. The Commission should ensure reasonable terms and conditions for use of system agreements for use of distribution lines, and ensure that they remain up-to-date with current market issues. Terms and conditions should take into account the interests of consumers, retailers and distributors and should be consistent with:

- arrangements for connecting distributed generation to distribution networks (described later)
- obligations imposed on retailers as a result of arrangements relating to contracts between retailers and consumers
- arrangements covering distribution pricing methodologies

- arrangements for the use of technologies for load management (including ripple control)
- any other regulations promulgated under the Electricity Act 1992.

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## 9. Interrelationship with the Commerce Commission

*This section is critical. The Commerce Commission is widely expected to report that generators have abused their market power. Generators are the winners, mass-market consumers are the losers.*

*The market design will need to be changed to reduce this abuse. How will these changes of market design be made so the losers have confidence in them?*

*This section will inevitably change as Government's policies are announced.*

*How will the CC be beefed up to cover this?*

104. This section sets out the Government's expectations and intentions regarding the interrelationship between the Commerce Commission and the Commission with regard to the regulation of Transpower and electricity lines businesses by the Commerce Commission under the Commerce Act 1986 and the Electricity Commission under the Electricity Act 1992.

105. The Government expects the Commerce Commission and the Electricity Commission

to work together closely to ensure that their respective roles are well coordinated, and to minimise any scope for uncertainties regarding jurisdictional issues.

106. The Government notes that the two Commissions have developed and published a Memorandum of Understanding on their respective roles.

107. The Government's economic policy is that investment and other costs in relation to approved grid upgrade plans should be recoverable by Transpower. The Government also wishes to ensure that interested parties have certainty and clarity on how the two Commissions will operationalise the coordination of their respective roles.

108. Accordingly the Government requests that the Memorandum of Understanding between the Commerce Commission and the Electricity Commission continues to address the following matters in relation to transmission:

- the methodology for determining how each relevant expenditure component in relation to approved grid upgrade plans will be treated over time under the Commerce Act 1986
- how price setting as regulated by the Commerce Commission interacts operationally with the pricing methodology approved by the Electricity Commission
- how issues relating to valuation methodologies, pricing and pricing methodologies, quality and information disclosure will be coordinated and harmonised where possible between the two Commissions.

109. In addition, the Government requests that the Commerce Commission and the Electricity Commission review their Memorandum of Understanding by 30 November 2008 to specifically address the following matters in relation to improving incentives for electricity lines businesses in respect of:

- managing distribution losses
- facilitating uptake of advanced metering infrastructure and more efficient distribution pricing
- ensuring target security levels for distribution networks are met at least cost
- facilitating investment in energy efficiency (including consumer end-use efficiency), demand side management and distributed generation.

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## 10. Distributed generation

110. Distributed generation is expected to play an increasingly important role in meeting electricity demand as the cost of smaller-scale and new renewable technologies continues to decline. Distributed generation can improve security of supply by creating diversity of fuel types, locations and technologies, and, where appropriately sited, helps reduce the need for transmission and distribution upgrades. Accordingly, it is important that there are no unnecessary barriers to its development.

*So far this section has been consistently honoured in the breach.*

### Access to lines

111. The Commission should investigate the provision of guidelines or standards for domestic scale distributed generation to reduce regulatory compliance costs.

### Purchase of surplus generation by retailers

112. The Commission should ensure reasonable terms and conditions in contracts for purchase of small electricity surpluses by local retailers from generators with generation units capable of generating up to 40,000kWh over a year. The Commission should investigate and make recommendations:

- on whether contracts should meet specified pricing principles; and
- on how contracts should require itemised billing (showing imports and exports) by 2009.

113. The Commission should review contracts from time to time to ensure that they remain up-to-date with current market issues.

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## 11. Retail

114. The Government considers that competition between electricity retailers should, over time, help ensure that retailing costs are minimised, service quality is improved and downward pressure is placed on generation costs. Most consumers, especially in larger centres, have a choice of retailers, and the processes for consumers to change suppliers have steadily improved. The Government considers, however, that retail competition is not as vigorous as it could be, and looks to the Commission to promote and facilitate retail competition.

115. The Commission should take primary responsibility to promote and facilitate efficient

and well-functioning markets and related arrangements for:

- Terms and conditions for access to end-use electricity meters by retailers
- Processes and procedures to ensure that consumers are able to switch retailers with a minimum of inconvenience and cost
- Enabling retailers to effectively manage price risk e.g. through hedging.

*Domestic consumers do not have faith in retail competition because in the present system ~~@there is none~~ The Powerswitch system is not supported by consumers, - yet consumers pay for the complexity needed to allow Powerswitch.*

### The reconciliation of, and payment for, distribution line losses

116. Current methods for calculating, reconciling and arranging payment for distribution line losses by competing retailers are often raised as a concern by retailers. The Commission should develop model approaches to improve distribution loss factor calculation and should investigate and make recommendations for the management, minimisation and allocation of distribution losses.

*This is an important issue; feet have been dragged on it. Where are discussions at, at present – we have no idea. Smart metering should resolve most of these problems so long as the hackers are kept at bay.*

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## **12. Accountability requirements**

117. The Government expects the Commission to prioritise work on the objectives and outcomes set out in this Government Policy Statement.

118. In addition to the reporting requirements set out in legislation, the Commission should

report at least quarterly to the Minister of Energy on progress against the Government's expectations in this Government Policy Statement.

## **Status of existing Government Policy and Section 26 Statements**

119. For the avoidance of doubt, all other previous Government Policy Statements on Electricity Governance are supplanted by this Policy Statement.

120. A new section 26 Statement will be issued advising the Commerce Commission that

this Government Policy Statement is a statement of the Government's economic policies within the meaning of that section.

Hon Gerry Brownlee

**Minister of Energy and Resources**

Date: \_\_\_\_\_

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## **Appendix 1: s172N Electricity Act 1992**

### **Principal objectives and specific outcomes -**

1. The principal objectives of the Commission in relation to electricity are -
  - a. to ensure that electricity is produced and delivered to all classes of consumers in an efficient, fair, reliable, and environmentally sustainable manner; and
  - b. to promote and facilitate the efficient use of electricity.
2. Consistent with those principal objectives, the Commission must seek to achieve, in relation to electricity, the following specific outcomes:
  - a. energy and other resources are used efficiently:
  - b. risks (including price risks) relating to security of supply are properly and efficiently managed:
  - c. barriers to competition in electricity are minimised for the long-term benefit of end-users:
  - d. incentives for investment in generation, transmission, lines, energy efficiency, and demand-side management are maintained or enhanced and do not discriminate between public and private investment:
  - e. the full costs of producing and transporting each additional unit of electricity are signalled:
  - f. delivered electricity costs and prices are subject to sustained downward pressure:
  - g. the electricity sector contributes to achieving the Government's climate change objectives by minimising hydro spill, efficiently managing transmission and distribution losses and constraints, promoting demand-side management and energy efficiency, and removing barriers to investment in new generation technologies, renewables and distributed generation.