PowerNet Limited
taking a positive line in the south

251 Racecourse Road, PO Box 1642, Invercargill 9840, New Zealand
Tele: +64 3 211 1899 Fax: +64 3 211 1880

4 September 2009

Kate Hudson
Electricity Commission
Level 7, ASB Bank Tower
2 Hunter Street, PO Box 10041
Wellington 6143

Email: submissions@electricitycommission.govt.nz

SUBMISSION TO ELECTRICITY COMMISSION ON PROPERTY RIGHTS FOR LOAD MANAGEMENT DISCUSSION PAPER ON BEHALF OF POWERNET LIMITED, ELECTRICITY INVERCARGILL LIMITED, THE POWER COMPANY LIMITED AND OTAGONET JOINT VENTURE

1. INTRODUCTION

1.1 This response is prepared on behalf of PowerNet and two of the networks PowerNet manages being Electricity Invercargill Limited (EIL) and The Power Company Limited (TPCL).

1.2 PowerNet is a network management company with its head office in Invercargill. PowerNet was established in 1994 as an incorporated joint venture to manage the electricity assets of its owners Electricity Invercargill Limited (EIL) and The Power Company Limited (TPCL).

1.3 The networks currently under PowerNet's management have an ODV in excess of $350 million and convey over 1,350GWh through 13,500 km of lines and cables to 65,000 consumers. The large networks under PowerNet's management are EIL, TPCL and OtagoNet Joint Venture.

1.4 You will also be receiving submissions from PricewaterhouseCoopers (PwC) on behalf of a group of line companies of which we are also signatories. In addition there is a submission from the Electricity Networks Association (ENA) of which PowerNet is also a member.

1.5 The main purpose of this submission is to affirm our agreement with and support for both of the above submissions referred to in 1.4.

1.6 We recognise the importance and relevance of this issue, particularly in view of the impending changes resulting from major advances in metering, control technology and communications (AMI).

1.7 Although the paper focuses on the property rights derived from load control asset ownership, it is important to consider the objectives, priorities and beneficiaries of load management.

Load management, currently in the form of ripple control in New Zealand, was introduced in the 1950's primarily to overcome generation and transmission capacity constraints. It was developed in Switzerland, another country with mainly hydro electric generation with its high capital cost per MW. The introduction of ripple control reduced the capital investment in hydro generation.

Other countries, such as the UK, with predominantly thermal generation with lower capital costs did not invest in ripple control.

In New Zealand, the benefits of ripple control in reducing capital investment have historically been passed on to consumers through lower tariffs.

1.8 Although New Zealand is still mainly hydro generation, more recent generation capacity has been lower capital cost thermal, geothermal or wind. This has addressed most recent generation capacity deficiencies. In recent years New Zealand generation has been mainly energy constrained rather than capacity constrained and hence short-term load management is relatively ineffective in addressing this situation. Capacity costs have mainly been associated with transmission and network investment with the former being reflected in Transpower's charges to the Distributors. Distributors have and continue to respond to these signals.

1.9 In the last 20 years, the main incentive for the continuation of ripple control has been to offset transmission and distribution network investment. The historic investment in the ripple control infrastructure and the strength of transmission pricing signals have contributed to providing justification for Distributors to retain and maintain their ripple control systems.

1.10 Load management has also become an important tool to expedite the restoration of supply after a lengthy supply interruption (both local network and grid) and again defers capital expenditure that would be required to achieve an equivalent service. In addition, the current form of load management equipment is used to switch street lights and provide value added services for consumers.

1.11 Although I am unaware of existing ripple infrastructure falling into disrepair in some areas, (Cl.2.3.3), two issues are influencing Distributors' investment in load management systems. The first is the inability to guarantee that price signals will be passed by the Retailers on to consumers through the bundling of charges and secondly, the introduction of AMI in New Zealand.

The impact of the former issue is mainly being experienced by Distributors through new connections not including ripple controlled water heating etc. The impact of the latter issue is the uncertainty surrounding an ad hoc market driven roll out of AMI.

1.12 Load management is inherently a Distributor's tool which can be used to respond to pricing signals or contractual agreements from both Gentailers and Transpower. Retaining load management with the Distributor enables the Distributor to utilize the equipment for supply security and effective local distribution network management and, through contractual agreements with the Gentailers, respond to future capacity constraints. It is important that the EC facilitates a process whereby all industry parties reach agreement on the principles relating to load management that not only apply to existing technology but more importantly ensure that the roll out of AMI achieves the best outcome for New Zealand.

2. Responses to Questions

1. **Do you agree that there is no single correct answer as to who should secure property rights to load management uses? If not, why not?**

We do not agree.

Security of supply is paramount and the final responsibility is with the Distributors.

Distributors can use the tool the most effectively on behalf of the industry and to the maximum benefit of the consumer.

2. **Do you agree that, while load management for network cost management use has a relatively high value, consumers and retailers will grant distributors rights to manage load for that network use, irrespective of who owns the load control assets? If not, why not?**

   Notwithstanding the above answer regarding security of supply, there should be no problems with Retailers and consumers agreeing to Distributors managing load for network cost management. It already occurs through the Use of System Agreements and historically consumers have granted those rights to the Distributors.

   Concerns have arisen over the past few years over the Retailers' bundling of the line and energy charges with minimal financial incentives for controlled tariffs. This is a separate issue relating to both line charge structures and Retailers' application of the charges and should not affect the principles relating to load management rights.

3. **Do you agree that irrespective of who owns the load control or metering assets, or who initially establishes a right to load management, there are sufficient mechanisms available to enable trading of rights between interested parties if the financial incentives support such trading? If not, why not?**

   In principle we agree there should be sufficient mechanisms providing financial incentives to support such trading.

   In practice it is again important that financial incentives do not over-rule supply security issues and again the Distributors are in the best position to make those judgement calls. In general the Distributors are closer to the consumers and are certainly more community responsive.

   With the introduction of AMI, safeguarding supply security through load management by the Distributors must be preserved and Distributors should be able to use load management for other network purposes.

4. **Do you agree that tradability of AUFLS obligations may provide for more efficient use of load management for all its uses? If not, why not?**

   No.
   AUFLS is a last resort system security measure and should be insulated from trading risks.

5. **Do you agree that weak price signals, transaction costs and Part 4A of the Commerce Act provide the main barriers to any under-utilisation of load management – overshadowing any effect from property rights? If not, why not?**

   There are indications that there is a degree of under-utilisation of load management in respect of new installations which reflects a weakness or dilution of Distributor pricing signals and a lack of marketing and promotion of off-peak tariffs by the Retailers.

6. **Do you agree with the above "AMI Functionality and Information' findings for use as guidance to the Commission's deliberations on the future of advanced metering guidelines and/or Rules? If not, why not?**

   No.
   There is too much risk of consumers not obtaining the full benefits of AMI, both directly and indirectly, in a rapid market driven roll out. The full benefits must be obtained for both Retailers and Distributors including load management.

7. **Do you agree with the commission's preference to not prescribe in Rules contractual terms that will re-distribute existing property rights for load management, but to provide guidance as necessary through protocols and guidelines? If not, why not?**

   We support a principle approach as outlined in the ENA and PwC submissions.

8. **Do you agree that the above options discussion on AMI functionality and information provides useful guidance to the Commission's deliberations on the future of advanced metering guidelines and/or Rules? If not, why not?**

   Response in accordance with the ENA and PwC responses.

9. **Do you agree with the Commission's preference to refrain from pursuing a redistribution of the ownership of load management assets? If not, why not?**

   Response in accordance with the ENA and PwC responses.

10. **Do you agree with the Commission's conclusion and intentions on market design as providing impetus for participants to provide better load management outcomes? If not, why not?**

    Notwithstanding previous responses, we believe there needs to be more consultation between the parties on these issues.

11. **Do you agree with the Commission's conclusion and intentions on facilitating industry contracts and arrangements? If not, why not?**

    Response in accordance with the ENA and PwC responses.

12. **Do you agree with the Commission's conclusions and intentions with regard to advanced metering functionality and information? If not, why not?**

    Response in accordance with the ENA and PwC responses particularly advocating the co-ordination of industry agreement across all interested parties.

Martin Walton
Chief Executive