

20 July 2007

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#### **SUBMISSION ON MARKET DESIGN**

- 1 Orion welcomes the opportunity to submit on the *Market Design Review* consultation paper (the *paper*) recently released by the Electricity Commission (the *Commission*).
- 2 We have limited our response to:
  - 2.1 the issues raised in relation to information on market performance – data source and limitations; and
  - 2.2 reliability of supply.
- 3 Our response to the Commission's questions raised in the paper is detailed below.

#### **Information on market performance – data sources and limitations**

- 4 The Commission has noted the following summary observations on market information:

*A range of data related issues make it challenging to analyse some aspects of electricity market performance in New Zealand;*

*The provision of accurate and reasonably accessible information on market performance would appear to be an important element in a well functioning market;  
and*

*There is a case for examining current arrangements to improve the coverage, consistency and accessibility of market information.*

- 5 The Commission raises several questions in relation to the above observations. We detail these questions and our response below.

***To what extent do you agree with these observations?***

- 5.1 Overall, Orion agrees with the Commission's observations.
- 5.2 We consider it challenging to try and compare data on an international basis. In general, the significant differences in overseas regulatory systems, together with the diversity of the markets involved, undermines the value that can be drawn from any international comparisons.
- 5.3 This is not to say that useful comparisons cannot be made in some instances. For example, each year Orion compares the reliability of the Christchurch central business district (*CBD*) to that of several Australian *CBDs*. However in doing this, we adjust for extreme events in accordance with Australian reporting standards.
- 5.4 We note that in relation to security of supply, it may be more meaningful for the Commission to consider the underlying drivers of quality and security of supply – that is, appropriate asset management planning based on best practice, rather than look at international comparisons.

***What issues would you regard as important in improving information quality and accessibility?***

- 5.5 Orion considers it important that participants take responsibility for providing accessible, quality information to their customers. We believe it is important to build open relationships with our community.
- 5.6 Our commitment to providing quality information is illustrated by our annual Network Quality Report (attached). We publish this report each year to let our customers, our owners and all of our stakeholders know how well we are doing at 'keeping the lights on'. It sets out what we do to measure and improve our network performance.
- 5.7 At a general level, consistent application of market performance measures between participants is required – that is, we need to

ensure an “apples with apples” comparison. This would be best achieved by the various industry sectors working together to develop agreed criteria for a range of specific measures.

- 5.8 We consider that industry-developed criteria are more likely to produce a superior outcome to that achieved through a regulated approach. However, while this may be achievable on a New Zealand wide basis, consistency of measures at an international level is unlikely to be achieved.
- 5.9 We understand that the Electrical Engineers’ Association (*EEA*) may develop international comparison reports in relation to reliability of supply. This may assist the Commission to access meaningful information. An entity like the *EEA* may be well-positioned to quantify the impact of different regulatory requirements on reported data.
- 5.10 We note that it is unclear whether the data in the paper for SAIDI and SAIFI in overseas jurisdictions includes or excludes extreme events. In New Zealand, SAIDI and SAIFI data currently includes extreme events (an issue that the Commerce Commission is consulting on).
- 5.11 As mentioned above, some international comparisons can be made. We include SAIDI and SAIFI comparisons between the Christchurch CBD and major Australian CBDs (excluding transmission outages and adjusted for extreme events in accordance with Australia reporting standards) in our Network Quality Report.

***To what extent do you consider information quality/accessibility issues will be adequately addressed under existing Commission work programmes?***

- 5.12 We consider that the Commission’s proposed service level standards for momentary interruptions (*MAIFI*) for Transpower may lead to better power quality/reliability information.

***To what extent should more detailed examination of information quality/accessibility issues be treated as a high priority in the next stage of the Market Design Review? If so, what aspects and why?***

- 5.13 We consider that more detailed examination of information quality/accessibility in relation to reliability of supply issues should be treated as a medium to low priority when compared to information needed to assist the Commission in other areas of the market.

## Reliability of supply

- 6 The Commission has noted the following summary observations on reliability of supply:

*Average reliability experienced by customers has been fairly stable through the 1995-2005 period. If anything, the data indicates an improvement in terms of reduced frequency and lost time from interruptions. New Zealand's performance also appears to be within the range of international experience – though more like that in Australia than Europe or North America;*

*The frequency of 'voluntary demand restraint' sought to address unusually dry conditions appears to be within the range of historical norms;*

*Most (if not all) developed countries appear to have experienced at least one major outage affecting a large number of customers at some point in the 1995-2007 period.*

- 7 In relation to the above observations, the Commission raises the following questions:

### ***To what extent do you agree with these observations?***

7.1 Orion does not agree with the first observation – “*that the average reliability by consumers has been fairly stable through the 1995-2005 period*”. The data shows a significant improvement in both SAIDI and SAIFI with an obvious downward trend over the years. Figure 4 shows SAIDI has trended down from around 225 (average minutes) to around 150 (average minutes). Figure 5 shows that the average number of interruptions (SAIFI) has dropped significantly from around 3.5 in 1995 to 2 in 2005. This is a significant improvement that the Commission should recognise.

7.2 We agree with the Commission's other observations.

### ***What other issues would you regard as important in analysing end user reliability of supply?***

7.3 No single method will provide meaningful and accurate results in analysing end user reliability of supply.

7.4 An underlying level of failure will always exist if electricity infrastructure is supplied at an economic cost. This fact is implicit in

the grid reliability standards<sup>1</sup> and also applies to distribution networks. This needs to be explicitly acknowledged in any analysis.

- 7.5 We consider that several important issues can assist in analysing and informing on end user reliability of supply as it is influenced by the network performance. These are:
- (a) SAIDI and SAIFI;
  - (b) reliability performance by area;
  - (c) causes of supply interruptions;
  - (d) planned interruptions;
  - (e) unplanned faults;
  - (f) faults per 100km of circuit;
  - (g) worst feeders;
  - (h) energy delivery performance;
  - (i) reducing fault numbers;
  - (j) risk management; and
  - (k) enhancement initiatives.
- 7.6 We have appended our Network Quality Report to this submission as an example of the information that we make available. This report addresses all of the issues listed above.
- 7.7 Consumer consultation is also an important tool that network companies should utilise to determine whether or not they are providing appropriate reliability, at a reasonable price, to the end customer.
- 7.8 However, consumer consultation about electricity supply, as recognised by regulatory bodies both in New Zealand and overseas, is fraught with difficulties due to the complexity of issues and the fact that network pricing is only one element of the customer's final

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<sup>1</sup> EGRs Part F Section III schedule F3

electricity bill. Therefore, consumer consultation should be combined with tools such as reliability comparison between networks.

- 7.9 In relation to international comparisons of reliability, we consider that the difference in network topology (European distributors have significantly more underground reticulation than in Australia and New Zealand) accounts for the obvious higher level of reliability indicated in the paper. We suggest that it would be more appropriate to compare the reliability for CBD areas which are more likely to have a similar architecture.
- 7.10 A further issue to consider is that for large capital expenditure projects, to ensure the price/quality trade off is being correctly made by the network, a sample of affected customers should be consulted with a view to determining whether the additional cost incurred for greater reliability is acceptable.
- 7.11 However, the provision of information is not without cost and any mandatory requirements should be kept to the minimum required to allow the Commission to meet its statutory obligations. The Commission should work closely with the Commerce Commission and other regulatory bodies to ensure that there is no duplication of reporting requirements.
- 8 Thank you for the opportunity to make this submission. If you have any questions, please contact Dennis Jones (Industry Developments Manager), DDI 03 363 9526, email [dennis.jones@oriongroup.co.nz](mailto:dennis.jones@oriongroup.co.nz).

Yours sincerely



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