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Keston Ruxton
Manager, Input Methodologies Review
Regulation Branch
WELLINGTON

By email: im.review@comcom.govt.nz

Dear Keston,

TRUSTPOWER SUBMISSION ON THE INPUT METHODOLOGIES REVIEW DRAFT DECISIONS

1 Introduction

1.1.1 Trustpower welcomes the opportunity to provide comment to the Commerce Commission (**the Commission**) on its Input Methodologies (**IMs**) Review draft decisions.

1.1.2 Due to time constraints arising from multiple, overlapping regulatory demands on our time since the release of the draft decisions, we have not had sufficient time to fully consider the material provided by the Commission.

1.1.3 Our comments are therefore very narrow in focus, and are associated with only the cost allocation IM relating to emerging technology. This is of particular interest to us as an existing provider of network support services.

1.2 Summary of submission

1.2.1 Our key points of submission are as follows:

a) Numerous deployments of technologies exist in New Zealand already that have the potential and capability to provide the same network support (and/or network substitute) services as batteries, and are therefore natural competitors to network-owned batteries. These deployments will only continue to increase in number in future;

b) Markets for the provision of network support services must be allowed to develop and flourish, as this will lead to the best long-term outcomes for consumers;

c) Third-party providers of network-supporting technology, especially owners of assets that have already been invested in, must be able to achieve the same economies of scope as a network company considering investing in the technology itself;

d) We are not convinced that the incentives in the current Part 4 regime are sufficient to encourage network companies to contract with, and adequately compensate, third-party providers of network support services; and, therefore

e) The Commission has a role to play in ensuring that market-based solutions for the provision of network support services are given the best possible chance of flourishing.

2 Trustpower

2.1.1 Trustpower is engaged in a range of business activities in New Zealand, including as a generator and seller of electricity from 38 hydro power stations (across 19 hydroelectric power schemes), two wind farms, and a small diesel peaking station.

2.1.2 Trustpower is also an active participant in Transpower's Demand Side Management programme.

2.1.3 The vast majority of our generation stations in New Zealand are embedded in distribution networks. These stations are otherwise known as "distributed" generation, or DG. Trustpower owns DG assets connected into the networks of ten different electricity distribution businesses (**EDBs**) across New Zealand.

2.1.4 Almost all of our DG assets are capable of providing network support services of various kinds to those EDBs.

2.2 Interest in the IMs review

2.2.1 Our primary interest in the IMs review is in the allocation of costs for emerging technologies.

2.2.2 As a DG owner and operator, and a retailer, we also have a strong interest in the overarching regulatory frameworks that apply to emerging technology, particular around ownership and access to revenue streams.

2.2.3 We want to ensure that, wherever possible, markets for the provision of network support services are able to develop and flourish, which, in our view, will lead to the best long-term outcomes for consumers.

2.3 ERANZ submission

2.3.1 As an electricity retailer, Trustpower is a member of the Electricity Retailers' Association of New Zealand (**ERANZ**). We have provided input into and endorse the ERANZ submission to the Commission.

3 Key points of submission

3.1 The focus should be on the function, not the technology

3.1.1 The focus of the cost allocation IMs should be on the *function* that a technology performs, not the technology itself.

3.1.2 While the increased cost-effectiveness of batteries leads to them being classed as an "emerging technology", the functions that they perform are not new.

3.1.3 As discussed above, many of our DG stations are also able to perform the same network support functions as batteries, including (but not limited to):

a) energy peaking (or load management);

b) frequency keeping;

c) voltage support;

d) providing instantaneous reserves; and

e) islanded running and other services.

3.1.4 Our assets have provided these services for a number of years. Therefore, there are already "battery-like" technologies deployed in many of the distribution networks around New Zealand, and there are already potential competitors for the provision of the network support (and/or network substitute) services that batteries could provide.

3.2 Key requirement must be to provide a level playing field

3.2.1 We note the Commission's comment on the economies of scope that batteries are able to achieve.

3.2.2 We agree that there are multiple value streams that batteries and battery-like technologies (such as DG) can create. It is important that any potential economies of scope can be realised, by enabling technology owners to monetise the full and various values of these assets.

3.2.3 However, we disagree with the view that it is only EDBs or Transpower (**network companies**) who are able (or alternatively, are best-placed) to achieve these economies of scope. In our view, third-party providers of technology, especially if their assets have already been invested in, should be enabled to achieve the same economies of scope as a network company investing in technology itself.

3.2.4 In other words, the economies of scope should be able to be achieved by any party that invests in a network-supporting technology – including consumers, or third-party aggregators. Consumers are likely to invest in technologies such as batteries without complete understanding of how to fully monetise their value, therefore there must be a way for them (or aggregators, on their behalf) to achieve this.

3.2.5 If that is not the case, then there may be unnecessary barriers to competition that must be addressed. For example, if information asymmetries or access to revenue streams are providing network companies with competitive advantages that risk foreclosing markets to other participants, then the Commission and/or other policy makers must determine whether greater controls or limitations may be required.

3.3 Existing incentives under Part 4 may not be sufficient to facilitate competition

3.3.1 The Electricity Authority (**Authority**) recently consulted on a review of the Distributed Generation Pricing Principles (**DGPPs**).

3.3.2 In response to the Authority's proposal, we asked a range of independent experts for their views on whether the incentives in the current Part 4 regime were sufficient to encourage network companies to contract with, and adequately compensate, third-party providers of network support (and network substitute) services, such as DG owners.

3.3.3 The reports written for Trustpower by HoustonKemp and Allan Carvell as part of that review have been appended to this paper. While they were written for a different context, we believe they are also relevant to this discussion, as highlighted below (with references to the relevant sections in the reports).

3.3.4 The Authority claimed in its DGPPs consultation paper that a relative lack of payments by EDBs to DG owners for support services to distribution networks (which was determined following a survey of only the EDBs) was evidence that little service was actually being provided by those DG stations.

3.3.5 It is our understanding that the Commission believes that incentives under the current Part 4 regime are sufficient to ensure that EDBs (and Transpower) will contract with existing third-party providers of network support services, in preference to investing in their own solutions, provided that this is indeed the profit-maximising solution.

3.3.6 However, the expert advice we have received from both Allan Carvell and HoustonKemp suggests that this may not be the case.

Allan Carvell

3.3.7 In his report, Allan outlines several areas where the current IMs incentivise network companies to invest in network assets in preference to alternatives:

a) Inefficient pricing:

"The price-quality control regime introduces several incentives that may encourage EDBs to allocate common costs to DG at inefficient levels, potentially at or above the DG owner's ability or willingness to pay. In short, ***EDB's cannot be relied upon to price DG connection services efficiently*** *(hence the existence of schedule 6.4 of the Code), just as they cannot be relied upon to avoid exploiting their monopoly position when pricing electricity lines services (and hence the existence of Part 4 of the Commerce Act 1986)."*[1] (emphasis added)

b) Cost allocation:

"An EDB may generate revenue from the provision of network connection and distribution services to DG at prices above the incremental cost of providing that service without there being any reduction in the EDB's regulated revenue. This is possible because, within certain constraints, the EDB can allocate costs between regulated and unregulated activities using the Avoidable Cost Allocation Methodology (ACAM).

ACAM based allocations would not require the allocation of common costs away from the regulated activity and towards the unregulated activity (i.e. connection and distribution services to DG). These common costs, by definition, would not be avoided if the unregulated activity was not entered into or was discontinued.

As a result of the allocation rules under the price-quality control regime there is a clear potential gain to the EDB, with no reduction in the prices levied on consumers through regulated line charges. This means ***that there will be a wealth transfer from the DG owner to the EDB****, rather than a wealth transfer from the DG owner to consumers."*[2] (emphasis added).

c) Capex vs opex:

"In addition to the potential impact of the profit incentive on EDB price setting, the choice between investment in assets or the acquisition of services is also important. Notwithstanding some measures within the price-quality control regime to provide balanced incentives between operating expenditure and capital expenditure, EDB's continue to favour capital expenditure over operating expenditure. At a recent industry workshop an EDB spokesperson, discussing the choice between purchasing a service (i.e. incurring an operating cost) or building network assets (i.e. incurring capital expenditure), described this bias:

> "The thing about a service in the current regulatory environment is we're on a five year price reset and anything we put into a service which becomes opex, it's just a cost, it disappears, ,,, If we can put it on our RAB … we actually at least get that money back …"[3]

This bias means that ***EDBs may prefer to build assets to reinforce and grow their networks*** *rather than rely on DG connecting and providing network support services to achieve similar outcomes."*[4] *(emphasis added)*

HoustonKemp

3.3.8 HoustonKemp agree with Carvell and add several further reasons why New Zealand network companies are unlikely to consider non-network solutions:

"The EA's contention that the regulatory regime provides incentives for Transpower to make efficient choices as between non-transmission solutions and network augmentations is predicated on the

[1] Pg 8 para. 3. Report by Allan Carvell: Electricity Authority Review of Distributed Generation Pricing Principles, 24 July 2016

[2] Pg 9 para. 2. Report by Allan Carvell: Electricity Authority Review of Distributed Generation Pricing Principles, 24 July 2016

[3] Transcript; Emerging Technologies Workshop; Commerce Commission; 14 December, 2015 Page 89, lines 3-5, 7-8 & 10

[4] Pg 9 last para. Report by Allan Carvell: Electricity Authority Review of Distributed Generation Pricing Principles, 24 July 2016

assumption that the regulatory WACC matches Transpower's actual cost of capital. However, there are a number of reasons to suggest that this assumption may not necessary hold …"[5]

a) HoustonKemp illustrates their point through examples[6] and further notes that:

"the capex IM does not explicitly require Transpower to consider distributed generation or any other non-network solutions as possible alternatives to undertaking that base capex when preparing its proposal. For example, Transpower is under no obligation to consider non-network options in determining whether to replace an existing transmission network asset, where the replacement does not materially improve the original service potential beyond that attributable to using modern equivalent assets…"[7]

b) HoustonKemp also provides example of how regulators in Australia require network companies to explicitly consider non-network alternatives:

"As a consequence, the National Electricity Rules (NER) in Australia include additional arrangements intended to ensure that network support payments to non-network providers are actively considered by the network businesses as part of its investment evaluation process."[8]

3.4 More structure is required to promote markets for network support services

3.4.1 We believe that the Commission has a role to play in ensuring that market-based solutions for the provision of network support services are given the best possible chance of flourishing.

3.4.2 We refer the Commission to examples, provided by HoustonKemp, of regulation designed to deliver the level playing field where non-network solutions can compete with network solutions to deliver the most efficient and cost effective outcome for consumers. In this example:

"The NER require distributors to examine non-network alternatives when proposing major network investments, with such decisions being made by reference to either the regulatory investment test for distribution (RIT-D) or the regulatory investment test for transmission (RIT-T). In general terms, the RIT-D and RIT-T are economic cost-benefit analyses that require network businesses to engage in an open process of assessing and ranking alternatives to major network investments, including transparent consideration of non-network alternatives."

"Both the RIT-D and the RIT-T require network businesses to consider non-network options as part of this assessment framework, and establish an open and transparent process for engaging with stakeholders on credible non-network solutions. Specifically, network businesses are required to publish the technical characteristics that a non-network solution would be required to deliver to address an emerging investment need, such as the number of times a year that the non-network alternative would be expected to be called, the size and duration of the load reduction or additional supply required, the location, and so on."[9]

"The Australian Energy Regulator (AER) has said of these arrangements:

> *The RIT-D requires distribution network businesses to consult with stakeholders on the need for new capex projects and consider all credible network and non-network options as part of their planning processes. Its aim is to create a level playing field for the assessment of non-network options, such as demand-side management, against network options.*

[5] Sect 4.2.1. pg 15. Assessment of the Electricity Authority's proposal to remove the distributed generation pricing principles. HoustonKemp, 26 July 2016.

[6] Sect 4.2.2. pg 15. Assessment of the Electricity Authority's proposal to remove the distributed generation pricing principles. HoustonKemp, 26 July 2016.

[7] Sect 4.3.1. pg 20. Assessment of the Electricity Authority's proposal to remove the distributed generation pricing principles. HoustonKemp, 26 July 2016.

[8] Sect 4.3.1. pg 20. Assessment of the Electricity Authority's proposal to remove the distributed generation pricing principles. HoustonKemp, 26 July 2016.

[9] Sect 4.3.1. pg 21. Assessment of the Electricity Authority's proposal to remove the distributed generation pricing principles. HoustonKemp, 26 July 2016.

The AER has also recently submitted a proposed change to the regulatory arrangements that would require network businesses to also apply the regulatory investment tests to all replacement expenditure, as well augmentation expenditure.

> *Under the proposal, network businesses would be required to signal early potential opportunities for new technologies or demand-side options which arise out of decisions to retire an asset. This is particularly important given that there are now potentially a range of alternatives to 'like for like' replacement of network assets, given the pace of technological change we are seeing in electricity markets."*[10]

3.5 Further perspectives from Australia

3.5.1 In a recent presentation in Australia[11], a Senior Director of the Australian Energy Market Commission (**AEMC**) discussed some of the measures the AEMC is taking with the "*broader aim of facilitating the development of a competitive energy services market*".

3.5.2 One of the measures they are pursuing closely is "*effective ring-fencing that means that network businesses can't discriminate between their network business or related entities and third party service providers*". This is currently being implemented by the AER.

3.5.3 He continued:

> *"In addition to ring-fencing, the regulatory framework also needs to support this objective through a range of other measures including:*
>
> - *providing clarity around which services are regulated and which are not;*
> - *creating incentives for the efficient investment in, and use of, assets such as storage that can provide both regulated and non-regulated services, so that* ***the full value is obtained from those assets****;*
> - *having robust cost-allocation and shared asset regimes for circumstances where a network asset is used partly to deliver a regulated service and partly to deliver a non-regulated service; and*
> - ***having strong efficiency and investment tests that require and incentivise networks to procure services from the competitive market where it is more efficient to do so rather than investing in the assets to provide those services using regulated revenues and rolling them into the RAB****." (emphasis added)*

4 Summary

4.1.1 In summary, we believe there is a requirement for the Commission to examine whether current incentives on distributors and Transpower, and procurement rules, are sufficient to enable scope economies to be realised through contracting with third-party owners of existing assets capable of providing network support services, as opposed to network companies investing in their own, brand-new assets.

4.1.2 From the expert evidence we have been presented with to date, we do not believe that the incentives in the current regime are sufficient to enable this to occur.

4.1.3 We believe that the Commission must consider ways in which it can improve the existing incentives in the IMs to facilitate competition for efficient network support services, though any alternative/emerging technology.

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[10] Sect 4.3.1. pg 23. Assessment of the Electricity Authority's proposal to remove the distributed generation pricing principles. HoustonKemp, 26 July 2016

[11] We assume that the text of this presentation, given by Richard Owens on 3 August 2016 as part of the Australian ENA Regulation Seminar, will be posted on the AEMC's website in due course. However, it was unavailable at the time of submission.

4.1.4 Further, there is likely a role for the Commission and/or other policy makers to determine whether greater controls or limitations may be required in order to allow emerging network support markets to flourish.

4.1.5 For any questions relating to the material in this submission, please contact me on 07 572 9888.

Regards,

JAMES TIPPING
MANAGER STRATEGY AND REGULATION

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Appendix A – HoustonKemp report

HoustonKemp. *Assessment of the Electricity Authority's proposal to remove the distributed generation pricing principles.* 26 July 2016.

[appended]

Appendix B – Allan Carvell report

Allan Carvell. *Incentives Report*. 24 July 2016.

[appended]