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14 June 2016

Keston Ruxton
Manager, EAD Regulation Development
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Commerce Commission
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By email: regulation.branch@comcom.govt.nz

Dear Keston,

RE: Commerce Commission review of Transpower Capital Expenditure Input Methodology

The Independent Electricity Generators Association (IEGA) welcomes the opportunity to make this submission on the focus areas identified by the Commerce Commission (Commission) for its review of the Transpower Capital Expenditure Input Methodology.

The IEGA comprises about 40 members who are either directly or indirectly associated with predominantly small scale power schemes connected to local networks throughout New Zealand for the purpose of commercial electricity production.¹

Distributed generation competes with transmission (and distribution) infrastructure to deliver electricity to end consumers. The plant of some of our members was in place prior to the transmission grid; in other areas our distributed generation has deferred or avoided the need for transmission investment.

Our interest in the Capex IM review relates to the role of distributed generation as a transmission alternatives /non-transmission solution. We agree with the focus areas identified by the Commission and the following comments highlight the importance of focus area 1 about the changing landscape.

Focus area 1 – changing landscape

In our view the 'changing landscape' is not just about the impact of new technologies. The Electricity Authority's (Authority) December 2016 decision about the Distributed Generation Pricing Principles² (DGPPs) and future decision about the guidelines for development of a revised transmission pricing methodology will have a significant and currently unknown impact on the use of the transmission grid.

¹ The Committee has signed off this submission on behalf of members.

² Part 6.4 of the Electricity Industry Participation Code

We refer to the proposal to remove any signal in transmission charges that encourages managing peak demand volumes on the transmission grid. This is currently the interconnection charge based on 100 Regional Coincident Peak Demand periods. The RCPD charge and previous DGPPs incentivised distributed generation to maximise output during peak demand periods (to receive avoided cost of transmission payments). Network companies are also incentivised to offer tariffs that enable control of load in peak demand periods to reduce their transmission charges.

Transpower estimated, in its submissions on the DGPPs³, that peak demand management (DG plus network company load control) is 9-22% above net load currently transported by transmission assets.

The December 2016 DGPP decision introduces a new 'test' for existing distributed generation. Transpower must assess whether existing distributed generation contributes to Transpower achieving its Grid Reliability Standards (GRS) and report to the Authority. The Authority can ask Transpower to amend its report and has the right to 'approve' existing distributed generation to be eligible for ongoing avoided cost of transmission payments if generating during peak demand periods. There are two issues with this process:

- the GRS were not designed for this purpose
- the Authority assumes some existing distributed generators will not be on this approved list and so will not be incentivised to generate during peak demand periods.

The Authority assumed that distributed generators will still be incentivised to generate during periods of peak demand because that is when the spot price is high. Our members are price takers in the electricity spot market (ie have no influence on the level of the spot price). More importantly, there is no proven correlation between high spot price and high demand⁴.

IEGA submits it is imperative that Transpower has the flexibility to cope with the uncertain impact on the grid of removing the peak demand price signal and the consequences of lower distributed generation volumes during peak demand periods. One option we suggest is that Transpower be encouraged / able to contract with existing (as well as new) distributed generation to manage demand on the grid. These assets are already available and have been performing this task. This would be a no-regrets option to manage changing demand for the grid over time.

Transmission alternatives

IEGA understands that Commission's regime for regulating Transpower's revenue requirement and major capital investment includes requiring investigation of transmission alternative options. We submit consideration of transmission alternatives should have equal weight in both base capex and major capex processes.

Transmission alternatives, such as investment by third parties in distributed generation, provides Transpower with flexibility to manage uncertainty about the future need, or timing of transmission investment. This is particularly important as the industry faces change due to emerging technologies and consumer decisions.

In this context, IEGA supports a staged approach to reviewing / approving transmission investment. Distributed generation, as an alternative to transmission investment, is relevant and should be considered at each stage. Creating or maintaining options is valuable and a no-regrets approach.

³ See Transpower's submission at <https://www.ea.govt.nz/dmsdocument/21112> and Scentia's report at <https://www.ea.govt.nz/dmsdocument/21165>

⁴ In general spot prices are higher during autumn as generators manage hydrology leading into winter (we can provide more information on this if desired)

As emerging technologies grow, transmission alternatives may become the 'baseline' investment with actual transmission assets being the 'alternative'. This could already be the case if Transpower contracts existing distributed generation and load control to delay or avoid investment that may be required without a peak demand price signal in transmission charges. In our view, Transpower has acknowledged this possible future in its *Transmission Tomorrow* report.

There is most likely to be a significant difference in scale between the step change in capacity provided by investment in transmission infrastructure (reflecting economies of scale) and the capacity provided by distributed generation – this ratio could be 10:1. The ability to aggregate is important as aggregation of a number of transmission alternatives may be a more efficient option for achieving a staged increase in transmission capacity than a one-off step change from investment in transmission assets.

IEGA members are small, innovative and entrepreneurial business people – essentially the SMEs of the electricity sector. They have limited resources to apply to complex negotiations with a large corporate entity with asymmetry of information. IEGA submits that the process of engaging with Transpower and the Commission on transmission alternatives, negotiating and signing a contract should be proportionate to the scale of the alternative provider or size of investment.

In some way the process of considering transmission alternatives must balance Transpower's probable bias towards what it knows best – actual transmission assets – and a viable alternative option. The issue of the required rate of return on an investment must also be addressed – the provider of an alternative is not going to face the same cost of capital as Transpower but a higher cost.

Once signed up as an alternative to investing in transmission infrastructure, the cost of this alternative must be recovered in the same way as Transpower's transmission assets and for the life of the investment. The alternative forms part of the integrated transmission grid. The value of the alternative is not eliminated when the next tranche of transmission assets are installed even if that tranche of investment results in excess capacity.

In summary, IEGA submits that the regulatory regime applying to both base and major capital expenditure should:

- require consideration of distributed generation as a transmission alternative / non-transmission solution
- allow for a staged approach to meeting and funding a perceived need to maintain flexibility
- enable consideration of aggregated transmission alternatives, such as aggregation of distributed generation plant, at each stage of an investment decision
- ensure that the process of engaging with Transpower and the Commission, and negotiating a signed contract, is manageable for smaller potential alternative providers
- ensure distributed generation contracted as an alternative to transmission investment is compensated on the same basis as Transpower's transmission assets for the life of the investment.

We would welcome the opportunity to discuss this submission with you.

Yours sincerely



Warren McNabb
Chair