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Submissions
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SUBMISSION ON TPM WORKING PAPER – CONNECTION CHARGES

1 Orion New Zealand Limited (**Orion**) welcomes the opportunity to comment on the "Transmission pricing methodology: Connection charges" working paper (the **paper**) released by the Electricity Authority (Authority) in May 2014.

Introduction

2 The paper is the latest in a series of working papers on the Authority's TPM reform proposals. It covers *relatively* limited aspects of the proposal, and as such our comments are relatively brief.

3 The paper discusses three key aspects of the current TPM approach to connection charges and examines:

- Whether there is potential for connection assets to be inefficiently classified as interconnection assets,
- Whether the asset component of the connection pool charge, which is based on applying average depreciation to all connection pool assets is efficient, and
- Whether the connection pool cost allocation methodologies for the recovery of maintenance, operating and overhead costs, are efficient.

4 We do not consider that any of these is very important, especially in the light of the much more radical aspects of the Authority's proposed changes to the TPM. The third strikes as a particularly minor issue and we make no further comment on it. We also believe that any beneficial changes with respect to the first two could be achieved by Transpower without direct involvement by the Authority.

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5 As with the previous TPM papers, the paper identifies possible problems, but does not clearly articulate them or establish that they are material. We note that the Authority recently added a "problem definition" working paper to its TPM workstream and we are hopeful that this will provide much needed context for the on-going TPM consultation.

6 The Electricity Network Association (ENA) has also prepared a submission on the paper. Orion supports the ENA submission.

Interconnection versus connection

7 As we stated in our March 2013 submission, we do have some concerns about the way assets are classified as connection and interconnection:

> "We believe there are still material boundary issues regarding whether assets are classified as connection or interconnection. In Orion's network we have in the past faced what we consider to be perverse incentives regarding electrically very similar solutions at Bromley and Islington. Investments at Bromley would be treated as connection investments - we would bear the full cost - while those at Islington would be treated as interconnection - we would bear about 10% of the cost. Some of these connection / interconnection distinctions seem to reflect little more than whether there are multiple counterparties that might benefit from an asset, and it would be odd if, for example, distributor mergers lead to a change in the classification of an asset. Within a broad "beneficiaries-pay" context there would be value in revisiting the way the connection / interconnection boundary is established."[1], and

> "The way that Transpower carries out allocation of shared connections costs could be improved. For example at Coleridge the assets are clearly largely there to support the connection of the local generation. Yet, because most of the assets are classified as interconnection, and because Orion happens to supply a few small customers, the connecting generator picks up only around 10% of the cost of what are very specific local assets."[2]

8 However, the theoretical possibility of inappropriate investment needs to be set against the actual opportunities, and the other processes that might limit the chance of this happening. In our view engineering concerns appropriately dominate decision-making, which makes it much less likely that investments will be inefficient ones. To the extent there is a potential problem here, it must be recognised that no perfect connection asset boundary exists in all situations and the resolution is more likely to emanate from an improvement to decision making processes including greater clarity, transparency and consistency of the process by which Transpower makes the decision about how to connect. Transpower's acceptance of new connections to interconnection assets should only proceed where the outcome can be shown to be more efficient than connection to connection assets.

9 In summary we think that the dynamic efficiency problem is small but could be enhanced by process rather than asset classification changes. However, allocative efficiency could be improved through better interconnection/connection asset

[1] Response to question 3, page 14.

[2] Response to question 6, page 15.

boundaries. This we submit could be progressed by Transpower separately from the wider TPM review.

Average replacement cost (flat) pricing

10 In short we do not consider there are any material problems with Transpower's current approach insofar as prices are smoothed over time. We think this is entirely consistent with an approach where it is the connection service that is being provided rather than specific assets. We accept that Transpower has a "fleet" to manage, and that the service we receive will be provided by fleet assets of varying ages.

11 The service provided by assets is largely a function of condition and configuration (N, or N-1), not age as implied in the paper. An asset's degradation of performance is not linear over its life. The whole point of condition based replacement is to avoid the high failure risk period of an asset at the end of its life.

12 We are not sure why the paper uses bank fees as an example of a comparable service charge. We would have thought that there are far more relevant examples of where the price of a service (from a particular provider) is the same irrespective of the age of the asset used to provide it, such as the fares for aeroplanes, buses, taxis and trains.

13 We also note that the saw-tooth pattern of costs that emerges from application of an alternative depreciated replacement cost (DRC) approach does not necessarily mean that prices should reflect this, for the following reasons:

- Pricing and costing are not the same. If pricing more appropriately reflects value, then the value of the service we would judge is flat over time (regardless of the assets used).

- The physical nature of the assets in question probably lends itself better to an approach where depreciation is very low for most of the assets life, and then accelerates dramatically towards the end of that life. This is actually consistent with flat pricing. Straight line depreciation is a convenient and dominant accounting convention, but that does not make it the best economic approach.[3] In any case this would seem to be a matter more appropriately considered by Transpower in conjunction with the Commerce Commission.

- As the paper notes, if the fleet is big enough then the combination of individual saw-tooth depreciation profiles will make the result quite flat anyway. So a customer with a representative fleet will see flat charges overall.

[3] In relation to depreciation, we doubt that under Transpower's current approach assets are in fact depreciated more than 100% as stated in para 1.19 (g) of the paper.

14 We face the same issue with aspects of our delivery service, and in particular where we provide dedicated equipment, such as transformers, to customers. We consider this is a service not the lease of a specific asset and as such we average the prices across customers and years, and provide the service with equipment from our fleet that ranges in age from quite old to new. We note that as part of the service we have the responsibility to maintain the equipment including replacing it (though not necessarily with a new asset) at the end of its useful life.

15 Once connection is seen as a service provided by a fleet of assets, rather than a lease of specific assets, we believe most of the concerns disappear. For example we don't think the concept of cross-subsidy can be applied just because one customer receives a service with old assets while another receives the same service (at the same quality) via new assets.

16 We do not accept that the current arrangement leads to early replacement of assets. The decision to replace a connection asset is complex and takes account of asset condition, safety, overall fleet management, workflows, importance to service, spares availability, etc. To suggest that distributors should have a large say in this process is wrong. It is not appropriate for distributors to second guess or recreate Transpower business processes – this would be an inefficient use of resources.

17 It should also be recognised that deferring the replacement of an asset beyond its reliable life can lead to significant safety risks and increased costs to consumers through poor reliability outcomes. Changing pricing arrangements or processes to enable (ill informed) distributors to delay Transpower replacement works should be approached with caution. We also note that Transpower's IPP sets the revenue and quality requirements that Transpower must meet.

18 However, and expanding on the point above, it is only for existing assets that this service / fleet based pricing applies. Orion does have a concern about the way CIC's must be organised effectively as finance leases where investment in new or upgraded assets is required. It is unclear to us why the connection charges associated with the new or upgraded assets cannot just be treated the same as existing connection assets – as an extension to the pool? This would keep the assets, and the services they provide, under regulatory control.

19 There is also the considerable uncertainty of what happens when assets paid for under a CIC are replaced at the end of their life. It is here that there is scope for inconsistency between different sorts of connection assets and investments, and there might be incentives for parties to behave in ways that lead to perverse outcomes.

20 The existence of CICs creates incentives for 'status quo' i.e. a connecting customer is incentivised to avoid an upgrade and hence a CIC when assets can be replaced like for like without a CIC. Also the more new assets that are placed in CICs, the older the remaining asset pool becomes and the more the ARR drops accordingly which amplifies any effect the EA is concerned about.

21 In our view, and we believe contrary to the paper's view, CICs are not an example of a market-based approach under the Authority's economic and decision-making framework. We do not believe that we can realistically contract with a party other than Transpower to build connection assets.

22 We consider that, rather than ignoring CICs, this is the very area where the Authority should be looking. Effectively CICs are removing assets that should be part of the regulatory regime from any form of regulation.

- ***Efficiency***

23 Notwithstanding the previous point, we consider that much of the discussion of efficiency in the paper overstates the potential problems.

24 In relation to dynamic efficiency the question needs to be whether the various incentives in play make a material difference to actual decisions (for example to invest in A rather than B) and even if they do, whether the outcome of these different decisions is materially different overall. We can certainly see that there might be differences in which party pays depending on the investment decision, but that of itself has no material efficiency consequences. (This is similar to the concerns that Orion and many other submitters expressed with respect to the wider aspects of the Authority's October 2012 TPM proposal: we do not see how the proposal can improve investment decision-making and therefore deliver dynamic efficiency benefits.)

25 Likewise for allocative and productive efficiency: if broadly the same connecting customer outcome arises, and broadly similar assets are built to supply the service, it is difficult to see how inefficiency arises?

- ***Investment***

26 In our view much of the discussion in the paper confuses how parties pay for services (or assets) with how they make decisions about the investment needed to produce the service. We do not believe the two are necessarily or even commonly related. All investment requires the expenditure on something now that will provide benefits over time. The investment is normally seen as worthwhile so long as the stream of benefits is greater than the costs with both discounted at an appropriate rate. There are any number of ways that that this can be organised, but the fundamental economic test is the same.

27 In the case where Transpower invests and connecting customers pay (which is most clear cut with a CIC) Transpower works out how much it will need to earn to make the investment pay off, but it is (other things equal) indifferent to how the earnings come in so long as they are NPV the same (in fact Transpower allows customers to choose the number of years over which CIC payments can be made). The same can be said to apply in the case where the connecting customer itself invests: this inevitably involves an up-front capex cost and an ongoing steam of benefits and

costs. The decision will be driven by the NPV of the net benefits. Depreciation only effects NPV calculations via the depreciation tax shield, which will be the same no matter how the asset is paid for over time.[4]

28 Perhaps more importantly, we believe that most of the investments in question are, appropriately, engineering driven. By this we mean they will be driven by prudent considerations of what needs to be done and what is the best thing to do within the overall configuration of the network, and in the light of longer term asset management plans. This applies whether the investment decision-making is in the hands of the Commerce Commission (for GRS type investments) or in the hands of participants in conjunction with Transpower (for CICs). We doubt that the timing and structure of payment arrangements will ever materially change the decisions.

29 Finally we note that some distributors, including Orion, have been acquiring certain connection assets from Transpower – so called "spur" assets. While these acquisitions have a positive business case for Orion (a case which necessarily needs to consider the future capex and opex implications of ownership, not just the costs of the acquired assets), we also believe these assets are more appropriately and efficiently managed within the Orion fleet rather than in Transpower's fleet. The actual beneficiaries are consumers.

Concluding remarks

30 Thank you for the opportunity to make this submission. Orion does not consider that any part of this submission is confidential. If you have any questions please contact Bruce Rogers (Pricing Manager), DDI 03 363 9870, email bruce.rogers@oriongroup.co.nz.

Yours sincerely

Bruce Rogers
Pricing Manager

[4] We acknowledge that there is a somewhat different risk profile depending on the term of the CIC in that Transpower faces more stranding risk the longer the payment term. However we consider this to be negligible in most cases due to the nature of the likely counterparties (generators or distributors) who by definition themselves have long lived assets and a need for an on-going connection service. The paper does not provide any evidence that this risk is in fact material or leads to poor investments.