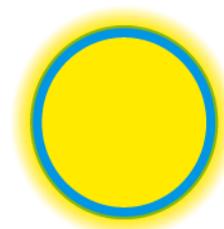


24 June 2014

Submissions
Electricity Authority
PO Box 10041
WELLINGTON 6143

POWERCO



Dear Sir/Madam

Re: Transmission Pricing Methodology: Connection charges

This is Powerco Limited's submission on the Electricity Authority's (EA's) consultation paper *Transmission Pricing Methodology: Connection charges* ("discussion paper").

Powerco has seen and agrees with the submission made by the Electricity Networks Association (ENA). In particular, we endorse the ENA's observation that the Authority's transmission pricing methodology (TPM) review appears to be proceeding in a rather piecemeal and heterodox fashion. The latest consultation exemplifies this problem, as the Authority states that the concepts canvassed by the consultation should be assessed against the current TPM (see para. 6.24), even though the Authority is in the process of developing a fundamentally different approach to the recovery of transmission revenue which could alter every element of transmission charging.

The discussion paper identifies several concerns that the Authority has about the current connection charge, viz.:

- The potential for new investments to change the definition of assets from connection to interconnection if loops are created in the grid;
- The potential for assets that will ultimately be interconnection assets to be classified temporarily as connection assets during the staged commissioning of new investments;
- Whether the asset-based charge for "pool" connection assets should be averaged across all assets in the pool, as at present, or reflect the actual financial depreciation of individual assets;
- Whether or not the current allocation of operating and maintenance costs to connection represents an unacceptable cross subsidy.

We comment on these points below.

Potential for connection assets to be redefined as interconnection via the creation of loops

In principle, it is possible for a new investment in the grid which connects two nodes to create a loop which would have the effect of redefining some connection assets as interconnection assets. However, in practice this outcome has never occurred. The only instance we are aware of where this issue could have become a problem in practice is

the investment currently being made to join Hangatiki and Te Awamutu substations. The problem of the potential redefinition of assets was averted by Waipa Networks agreeing to a contract with Transpower, which effectively preserves the original charging arrangements.

We think this example demonstrates that instances where a potential redefinition of grid assets could occur are actually inadvertent and can be dealt with by common sense contractual means. Consequently, we believe this potential problem can be easily remedied if it should arise and no amendment to the current TPM definitions is required.

Connection assets that will ultimately be interconnection assets classified as connection during staged commissioning

When major interconnection investments (such as the North Auckland and Northland or NAaN project) are commissioned incrementally, some of the new assets may be defined as connection assets until the whole project is completed and commissioned. The Authority considers this to be efficient but, in our view, assets that will ultimately be interconnection assets should be able to be treated as interconnection assets whenever they are commissioned, and this should be able to be achieved by way of exemptions on a case by case basis. Not to grant exemptions in these circumstances simply encourages major interconnection assets not to be commissioned until the whole project is completed, which is not in the best interests of end consumers.

The Authority appears to be concerned that the staged commissioning of some assets may enable electricity distribution businesses (EDBs) to avoid the need to invest in some assets of their own. We believe this would only rarely be the case, but, if this situation were to arise, it would be in the interests of end consumers and overall economic efficiency if the EDB's investment were avoided (or deferred). A contractual arrangement could share the benefits of this outcome between the EDB and Transpower and, ultimately, their customers.

Whether the asset-based charge for “pool” connection assets should be averaged or asset specific

Under the current TPM, the asset return rate on “pool” connection assets is effectively averaged across the depreciated value of the pool. In the Authority's view it would be better for the asset return rate to reflect the degree to which individual assets are financially depreciated.

We support retaining the current approach, because we believe there is not a close relationship between the financial depreciation of connection assets and their physical depreciation. In our view, it is not correct to suggest that a connection asset that is 90 per cent financially depreciated is providing only 10 per cent of the service of a new asset. In reality, the service provided by the heavily depreciated asset will be little different from that provided by the new asset – there may be a little more maintenance required, but typically not much.

We also note that, in competitive markets, the prices charged for goods and services reflect the value of the good or the service to the consumer, not the accounting value of the equipment used to produce the good or service, e.g. cornflakes produced using old machinery typically sell for the same price as cornflakes produced using new machinery.

In support of its view, the Authority has also suggested that basing the asset return of individual connection assets on the financially depreciated value of those assets would make it more feasible for connected customers to compete with Transpower to provide replacement or augmented connection assets to meet the Grid Reliability Standards, and this would promote efficiency. We think this proposal suggests a misunderstanding by the Authority of how regulated EDBs go about funding significant capital expenditure.

When the Commerce Commission resets a regulated EDB's prices at the start of a regulatory period, it forecasts costs, including network capital expenditure, over the regulatory period and then sets forecast revenues equal to forecast costs in order to determine the starting prices for each supplier. To date, the capital expenditure forecasts have mostly been based on disclosures in EDBs' Asset Management Plans. Hence, in practice, for a regulated EDB to invest in connection assets that had previously been owned and operated by Transpower, it would have to forecast in its Asset Management Plan that it intended to do so. Alternatively, the connection asset investment would have to displace other capital expenditure which had been forecast. Hence, in practice, it is not reasonable to expect a regulated EDB to opportunistically compete with Transpower to replace or upgrade connection assets, which is what the Authority appears to be envisaging¹.

However, the "saw-tooth" effect on charges that would result from basing the asset return on the depreciated value of replacement assets could be a real incentive for some connected customers to oppose the replacement of connection assets. The discussion paper notes that this sort of behaviour occurred in the 1990s before the current pooled charging method was introduced. We believe this incentive can result in inefficient grid asset management and it also makes Transpower's fleet approach to asset management more difficult to apply. Again, this supports retaining the status quo.

In addition to the above, we have the following comments on whether the asset-based charge for "pool" connection assets should be averaged or asset specific.

Over depreciation of pool connection assets

We have checked with Transpower and no connection assets are depreciated by more than 100 per cent. If the issue is that connection charges continue to apply even though particular assets are fully financially depreciated, the charges apply because the service is continuing to be provided. This is no different to a cornflakes manufacturer continuing to sell cornflakes at the full market price, even though its manufacturing machinery is fully financially depreciated. Consequently we see no problem with the current approach.

Stranding risk

With respect to the stranding risk point raised by the discussion paper, transmission customers that are at higher risk of stranding are subject to more stringent prudential requirements. Nevertheless, it is true that, if a transmission customer that has pool connection assets were to fail, the assets would be subject to accelerated depreciation and the costs would effectively be recovered from other pool customers. In practice, however, we believe this represents a very small risk.

Cross subsidy between connection pool customers

We do not believe that there is any material net cross subsidy between the connection pool charges for distribution customers, as most EDBs are served by a good mix of older and newer connection assets. If this issue exists at all, it would be limited to direct connect customers.

Cost of financing a flattened charged

As the discussion paper notes, Transpower financing a flattened charge on behalf of its customers is more cost effective than the customers doing this themselves. We also

¹ Note that investment in connection assets that Transpower is intending to upgrade or replace is quite a different scenario from purchasing connection assets from Transpower. If an EDB purchases assets from Transpower it is able to claim avoided transmission costs for a period of up to five years, under the provisions in clause 3.1.3(1)(e) of the Commerce Act (Electricity Distribution Services Input Methodologies) Determination 2010. This provides a meaningful incentive to purchase transmission assets.

note that, for most customer investment contracts (CICs), the charges are levelised, even though Transpower now offers alternative charging options. This tends to confirm the utility of flattened charges for most businesses.

Whether or not the current allocation of operating and maintenance costs to connection represents an unacceptable cross subsidy

Connection operating and maintenance costs are currently allocated to pool connection assets using allocators. Operating costs (which in this context essentially means switching costs) are allocated according to the number of switches at the connection asset, with an adjustment to reflect the operation of some switches by customers). In practice, most switch operation is done remotely, so, in reality, the common costs involved are always going to be allocated using proxy allocators, and it seems to us that the number of switches is a reasonable allocator to use. The idea that discrete switching costs can be applied to particular connection assets is illusory.

With respect to maintenance costs, connection line maintenance costs are allocated according to line length, with different line rates calculated for tower lines 220kV and above, other tower lines and pole lines, averaged over the previous four years. This seems to be reasonable to us. It may be possible to identify the expenditure on particular lines more precisely, at an administrative cost, but that would be likely to result in maintenance charges for particular assets that varied cyclically, with the variations providing no particular utility to customers.

Similarly, substation maintenance costs are allocated based on the replacement cost of substation connection assets and averaged over the previous four years. Again, this allocation seems reasonable to us and avoids undesirable cyclical variations in these charges. Allocating substation maintenance costs directly to the substations concerned (and then splitting the costs where the substation is shared by more than one customer) may be a little more practicable than trying to allocate switching costs and line maintenance costs directly to particular assets. However, we suspect that any benefits that might result would be negligible and unlikely to exceed the additional administrative costs that would be incurred.

On balance, we do not believe the Authority has demonstrated that there would be any net benefit from moving away from the current methodology for calculating pool connection asset charges.

Yours sincerely



Richard Fletcher
General Manager Regulation and Government Affairs