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Electricity Authority
PO Box 10041
Wellington
By email: submissions@ea.govt.nz

Avoided cost of transmission (ACOT) payments for distributed generation

Dear Sir/Madam,

Clearwater Hydro owns and operates three hydro stations in the Lower North Island with an installed capacity of 5.8 MW's. Clearwater has developed this portfolio over a period of 6 years and access to ACOT payments, which accounts for approximately 10% of the revenue of each station, was a major factor to proceeding with these developments. Clearwater Hydro strongly opposed the Electricity Authorities attempts to dilute the ACOT payments for Distributed Generation (DG).

The ACOT regime has been in place for over 50 years and a lot of investment in DG has been made on the back of this regime. To radically change the basics for ACOT at this stage would:

- Destroy confidence in the market.
- Retard future investment in DG.
- Create inconsistencies within the market.
- Transfer value.
- Place the reliability of the transmission system at risk.

The working paper appears not to have the evidence to justify its claims that DG has had little impact of transmission investment and no other economic benefits. The burden of proof should be on those proposing the changes and not the reverse. These claims appear to be based on philosophy rather than evidence and are not serving the market well.

Summary of the Clearwater Hydro's submission

In response:

- DG is closer to the point of consumption that grid connected generation and therefore must result in lower losses. The wholesale market, via location factors, can't account for these losses as this generation is not visible to the market. Reduced losses is therefore a real benefit of DG

- DG represents diversity in the system. Diversity improves reliability.

- ACOT payments allow DG to capture some of the benefits they bring to the electricity system. Without an adequate ACOT regime networks with existing DG would reduce their transmission costs compared to networks with no DG. This reduction would be off the back of existing generators who are already suffering due to a fall in wholesale prices. This is a wealth transfer.

- Certainty and Predictability form part of any best practice regime. A radical change of this nature is anything but Certain or Predictable with ACOT forming part of the New Zealand Electricity Market since the 1950s.

- DG in its various forms including Photovoltaic, has contributed to the flattening of the national demand for electricity. Despite this Transpower has just completed a period of major capital expenditure which at best as been built well in advance of when it is needed. IF DG hasn't differed capital investment it is due more to regulatory failure than the failure of DG

- The working paper is inconsistent with other positions taken by the EA and current regulation. For example

    - DG is the equivalent of negative load. Negative Load can avoid transmission charges. Under the current regime DG can avoid transmission charges through Part 6.4 of the Rules. The Working Paper proposed to change this part of the Regulation so embedded generation behind a load will avoid transmission but DG will not. This will create an inconsistency in the treatment of load and uneconomic incentives to build infrastructure that embeds DG behind loads.

    - The EA proposal to discriminate against older DG plant is completely against market principals and is inconsistent with the rest of the market. Older generators are not discriminated against in the wholesale market nor should old DG.

- There are factual errors and misleading statements in the Working Paper. The Working Paper concludes that ACOT-funded DG appears to have quite limited impact on Transpower's peak demand forecasts, and hence limited ability to defer the assessed need for transmission investment. Transpower were surprised at this conclusion when raised with them and there are have numerous examples that show significant deferral of transmission investments.

- The current regime encourages DG's to be generating during period of high demand. Without this DG at this time the demand would increase and the spot price would increase placing a greater cost on consumers. This effect hasn't been quantified in the Working Paper as a benefit of DG.

We believe ACOT payments represent good value for the industry and provide and simple, efficient and easily understood mechanism for the entire industry to work in a co-ordinated manner in the best interests of the industry. DG's are rewarding being available due period of high demand and get nothing if they aren't available.

Proposed changes to Part 6 or the transmission pricing methodology that increase the complexity of calculating ACOT payments or reduce the amount paid to DG risk inhibiting investment in DG that will be to the long term detriment of consumers.

The Electricity Authority seems to be philosophically weeded reducing ACOT payments. In an effort to avoid the negative consequences of implementing what is being proposed I would like to propose a compromise.

In the last 4 year the ACOT payments for the lower North Island have increased from $76/kw to $115/KW, a 51% growth in 4 years. This is off the back of premature upgrades to the transmission systems. While I support the current regime I do find it hard to justify why DG's should be the beneficiary of poor investment decision by Transpower and the regulators.

Clearwater made its investment in generation expecting to get approximately $76/kw in real terms for the life of the project. Most investments in generation would be made on a similar basis and would have occurred prior to the last 4 years and the period of rapid growth in Transpower demand chargers. This rapid growth in Transpower demand charges has brought unwarranted focus on the ACOT regime.

As a compromise I propose ACOT is set a fixed value in real terms (say $84 for LNI) and reset every five years. The benefits of this would be:

- The simple but positive charging structure would be retained.
- Existing owner of DG's value would not suffer a loss in value over what they invested on.
- Windfall benefits from Transpowers over investment are removed.
- Incentives to place DG behind load to capture transmission benefits are greatly reduced.
- The overall cost to the consumer is reduced with a massive wealth transfer.
- The potentially dangerous risk of implementing the EA's proposed changes are avoided.

Yours sincerely

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Gordon Cameron

Clearwater Hydro