



Fonterra Co-operative Group  
1 October 2019

Submission to the Electricity Authority

Transmission Pricing Review: Consultation  
Paper 2019



**Dairy for life**

## Introduction and Overview

Fonterra thanks the Electricity Authority (EA) for the opportunity to provide feedback on the consultation paper, “Transmission pricing review, 2019 issues paper- 23<sup>rd</sup> July 2019”.

In New Zealand, Fonterra uses approximately 1,100 GWh of electricity, which includes the electricity from co-generation facilities.

Fonterra’s sites are located across New Zealand, resulting in Fonterra having relationships with 14 different electricity distribution businesses (EDB’s). Energy is a significant cost input into the manufacturing process and maintaining a cost-effective energy supply is essential for Fonterra to compete in the global dairy market.

The estimated impact of the proposals within the review vary across Fonterra’s sites and will depend upon the details of the different charging mechanisms that could be used within the Consultation Paper (the Paper).

Fonterra is a member of the Major Electricity User Group (MEUG) and supports the points raised in the MEUG submission regarding the Paper, except where they may differ by any points raised in this submission by Fonterra.

In this submission, Fonterra provides feedback to the EA in the following areas:

1. General feedback on the proposal
2. Area of Benefit Charge – Increased Investment Scrutiny
3. Area of Benefit Charge – Durability
4. Area of Benefit Charge – Penalises renewable energy
5. First mover disadvantage
6. Residual Charge – Allocation to Generation
7. Residual Charge – Co-generation
8. Residual Charge – Direction to Transpower on Residual Methodology

Fonterra looks forward to further engagement with the EA on this topic. If there are any questions regarding any of the points made in this submission, please contact me.

Yours sincerely,

Glenn Sullivan

Group Manager Electrical

[Glenn.Sullivan2@fonterra.com](mailto:Glenn.Sullivan2@fonterra.com)

## Fonterra's submission to the EA on the TPM Review: Consultation Paper 2019.

### 1. General Feedback on the Proposal

Changes to the current TPM must be guided by the overall goal of increased consumer benefit over time. The 2019 issues paper identifies four areas that need to be considered:

1. Changes in climate change policy
2. Rapidly changing technology
3. A growing transmission grids
4. Durability issues

We are not convinced that the proposed changes to the TPM are aligned with the delivery of the required outcomes.

There is a lot that is still unknown and uncertain regarding how Transpower will implement the proposed TPM which impacts the ability to provide meaningful feedback on the proposal. However, in this submission Fonterra has endeavoured to provide feedback on the EA's proposal. The positions we provide in this submission may change in the future once further detail is provided.

As noted in the MEUG submission and NZIER advice, there are concerns that Fonterra echoes regarding the durability of the cost benefit analysis (CBA) that has been undertaken.

#### Changes in Climate Change policy

Fonterra submits that the proposed Area of Benefit charge (AoB) will disincentivise the large-scale uptake of electricity to replace fossil fuels.

Fonterra notes that the New Zealand Energy Efficiency and Conservation Strategy (ECCA) identifies three core initiatives to support New Zealand's climate change commitments. One initiative is the "Renewable and efficient use of process heat".

Currently, Fonterra produces most of our process heat requirements from fossil fuels. We have a significant role to contribute to New Zealand's climate change commitments. Fonterra is committed to a target of net-zero emissions by 2050 and a key part of this transition will be the electrification of process heat across many of our manufacturing sites.

AoB charges related to grid augmentation under the proposed TPM will likely attract greater transmission charges to those parties seeking to transition process heat from fossil fuels to electricity.

Many of the participants who plan, or will, adopt electricity based thermal solutions are exporters, often competing in commodity markets. Attracting greater costs, through an AoB charge, for using more electricity will likely result in, deferral of electrification, reduction in product demand, carbon leakage or some combination thereof.

Fonterra submits that a TPM that burdens electrical load used to displace high carbon fuels is a disincentive to achieving New Zealand's climate change commitments and is not a benefit to consumers.

#### Durability

Fonterra submits that the proposed TPM will be no more durable than the existing TPM and risks being less durable.

Firstly, the current TPM is durable and has been in place since 2008. It has been extensively challenged, including through the court process, and it has not been materially changed as a result.

Fonterra supports the comments in MEUG's submission on this matter and add that any TPM will likely attract challenge from those participants that determine they have commercial gain to be made by a change to the TPM.

Fonterra submits that the EA draw a sharp difference between a TPM that is durable and challenges to the TPM.

### **Price cap to transition to new pricing methodology**

Fonterra will not get relief from price increases from the proposed price cap.

The price cap only benefits industrial customers with direct connection to the grid. Fonterra's manufacturing sites are all connected via distributors and could expect additional cost to meet the capped residual charge.

Although the charge is allocated to the distributor, they will look to recover this cost from customers. For some sites this may provide an incentive to move to direct connect to avoid this charge, which is not the intention of the proposal. The price cap should be a mechanism to provide an equivalent rate of relief for consumers whether they are direct-connect or not.

## **2. Area of Benefit Charge – Increased Investment Scrutiny**

The Paper proposes that greater scrutiny of transmission investment will result in more efficient outcomes. The Paper has not provided any analysis of past transmission investments to justify this problem; to show that a more efficient transmission option could be implemented; or that a different outcome would arise from the Commerce Commission's (the Commission) decision making process on the basis that there is an increased number of submissions on Transpower's proposal.

The Commission have a regulated process to go through to review Transpower's proposed investments and if Transpower's proposal meets those requirements, then it is likely to proceed.

The Paper states in part 4.126 that:

*One of the main expected benefits of the proposal is more efficient grid investment due to the enhanced incentives on beneficiaries of transmission investments that pay benefit-based transmission charges to:*  
*(a) more closely scrutinise proposed transmission investments*

This incorrectly assumes that those that will face an increased cost from a proposed transmission investment, will have the ability (either knowledge or resources) to submit an alternative more efficient investment proposal to the Commission. The majority, if not all, users do not have core expertise regarding transmission investment, nor should they.

The Paper proposal appears to place a financial burden onto many users to employ resources to scrutinise Transpower's investments because they might bear an increased cost from the proposal. It has not quantified what this financial cost might be for users. This appears inefficient and as previously noted, unlikely to result in a different outcome from the Commission's decision-making process.

The EDB's will have more knowledge to be able to provide an alternative solution, but they are not financially incentivised to do so as they do not bear the cost, as the transmission charge is passed through to users.

Fonterra believes that it is unlikely that the proposed change to transmission pricing will result in more efficient transmission investments. We also do not believe that the EA have undertaken sufficient analysis of recent investments, nor of how increased submissions would alter the outcome of the application of the Commission regulatory regime to justify this assertion.

Fonterra therefore maintains that an AoB charge is unlikely to result in more efficient transmission investments.

### 3. Area of Benefit Charge – Durability

Fonterra has concerns about the vSPD method's ability to provide a robust methodology for determining Area of Benefit (AoB) charges. Any AoB charging mechanism must produce repeatable results for a similar set of circumstances. Excessive variation would undermine the durability of the AoB charge.

Fonterra submits that the vSPD methodology does not reliably produce consistent estimates of private benefit. This is evidenced by the significant difference in outcomes from previous EA models of the vSPD AoB methodology and subsequent models with a relatively small change in date range.

This was noted in Fonterra's Submission to the EA on 24 Feb 2017, *TPM: Second issues paper Supplementary consultation*. Also, at the EA CBA Workshop 10 September 2019 the EA noted that there is a significant difference in AoB outcomes dependent upon the direction of HVDC flows.

Fonterra submits that the EA advise Transpower to identify an AoB charging mechanism that is repeatable and durable, and that any such AoB method is transparent and widely consulted on. If such a mechanism cannot be found that the AoB approach is abandoned.

### 4. Area of Benefit Charge – Penalises renewable energy

Fonterra believes that the AoB charge penalizes renewable energy. Renewable generation, for example wind, future solar, hydro and must run hydro, typically sit close to 'zero' or 'low' in the offer stack. The vSPD producer surplus calculation will disadvantage these typically renewable generation sources.

When the second solve of vSPD is run the producer surplus for these generation types will be larger than for generation that was priced close to the margin. Renewable generation will therefore attract a greater portion of the AoB charge relative to say a thermal generator.

Fonterra submits that disincentivising renewable energy is a perverse outcome of the vSPD method of AoB calculation. We believe that the EA should give Transpower direction that an alternative AoB calculation method is found, widely consulted on and in the absence of a viable alternative the AoB charge be abandoned.

### 5. First mover disadvantage

Fonterra is supportive of a TPM that addresses the first mover disadvantage.

Fonterra is supportive of a variation to option B.29 (a) – backloading of costs to the residual. The allocation of the incremental capacity not required by the first mover should be allocated to the residual for any new customer connection, either generator or load.

An alternative method for managing the first mover disadvantage is allowing capacity rights for connection agreements. In this case legal right to the capacity that the customer is paying for passes to the customer. If / when a further customer wishes to connect to the grid the first move can then elect to sell or retain the capacity it owns.

### 6. Residual Charge – Allocation to Generation

Fonterra submits that the proposed treatment of the residual charge is inefficient relative to other less distortionary approaches. If the EA, as stated, wishes to treat the residual a non-avoidable 'tax like' charge then Fonterra submits that the residual should be wholly applied to generation.

Generation users of the grid will then pass on the residual to load customers to the extent that generators can. The incidence of the residual charge will sit with generators and load based on the

relative elasticities of supply and demand. This produces the most efficient, market like, outcome while still achieving the EA objective of an unavoidable 'tax like' charge.

The application of the residual charge to load serves no additional purpose. Consider Regional Coincident Peak Demand (RCPD) which is structured to incentivise peak reduction and therefore has to be applied to load only. Anytime Maximum Demand (AMD), or any tax like residual, does not have this purposeful function, beyond cost recovery, as a reason for application to load or generation.

There is a potential windfall benefit of applying residual charge to generation in that it will incentivise energy efficiency to reduce cost.

## 7. Residual Charge – Co-generation

The EA must ensure that industrial co-generation is not inappropriately allocated charges under the proposed TPM.

Inclusion of co-generation in Gross AMD will overstate the residual. For example, at Fonterra the primary reason for installing industrial co-generation is to efficiently generate steam for industrial processes at differing pressures. The focus here is doing this at highest efficiency, this is where co-generation performs very well. If the steam and electricity from the industrial co-generation ceases, then processing will also cease.

Co-generation is symbiotic with the processing electrical load (i.e. processing requires both steam and electricity, if no steam then electricity requirement will also cease). Co-generation's purpose is not to avoid transmission costs, and in fact, for Fonterra at least, the co-generation is often shut down at times of transmission peak demand (i.e. Winter). Attracting a higher proportion of residual charges to solve a problem that does not exist is a perverse outcome and would undermine the durability of the TPM.

## 8. Residual Charge – Direction to Transpower on Residual Methodology

Fonterra submits that the EA remove Gross AMD as a method of recovering residual.

Fonterra requests that analysis of the options for other residual charging methods are completed and consideration be given for methods of residual allocation including allocation of residual to generation as described above.

Please direct any queries regarding this submission to:

[Glenn.Sullivan2@fonterra.com](mailto:Glenn.Sullivan2@fonterra.com)