

1 December 2021

Submissions  
Electricity Authority  
PO Box 10041  
Wellington 6143

By email: [TPM@ea.govt.nz](mailto:TPM@ea.govt.nz)

### **2021 Proposed Transmission Pricing Methodology**

Thank you for the opportunity to submit on the proposed TPM.

Mataura Valley Milk has a world-class dairy based nutritional facility located in the heart of Southland. The a2 Milk Company recently acquired a 75% stake in Mataura Valley Milk alongside China Animal Husbandry Group, which remains a 25% shareholder. The first major asset investment for the newly formed venture be the ambitious conversion of the Mataura Valley Milk site to full electrification.

With support from EECA's GIDI fund, Mataura Valley Milk has started the pre-engineering work and distribution connection agreement negotiations to enable replacement of our existing coal boiler with an electrode boiler for process steam.

This project is expected to reduce carbon emissions by 29,800 Tons CO<sub>2</sub>e per year.

Even with support from GIDI funding the business case is very challenging and in part, relies on the proposed TPM reducing costs to access existing transmission capacity with transmission charges for new process heat load being passed through by our local network on an incremental basis.

#### **Direction to electricity distribution businesses required**

We are concerned that the incentives provided under the TPM for getting off coal may be lost, and our project viability compromised, if our local lines companies simply average out transmission costs to new and existing customers, rather than passing through just the incremental transmission costs of new process heat load.

We strongly encourage the Electricity Authority to be clear that they expect local networks to reflect the lagged residual charge in the pass through of transmission charges to new customers.

Please do not hesitate to contact me if you require any further information.

Yours sincerely,



#### **Bernard May**

Chief Executive Officer

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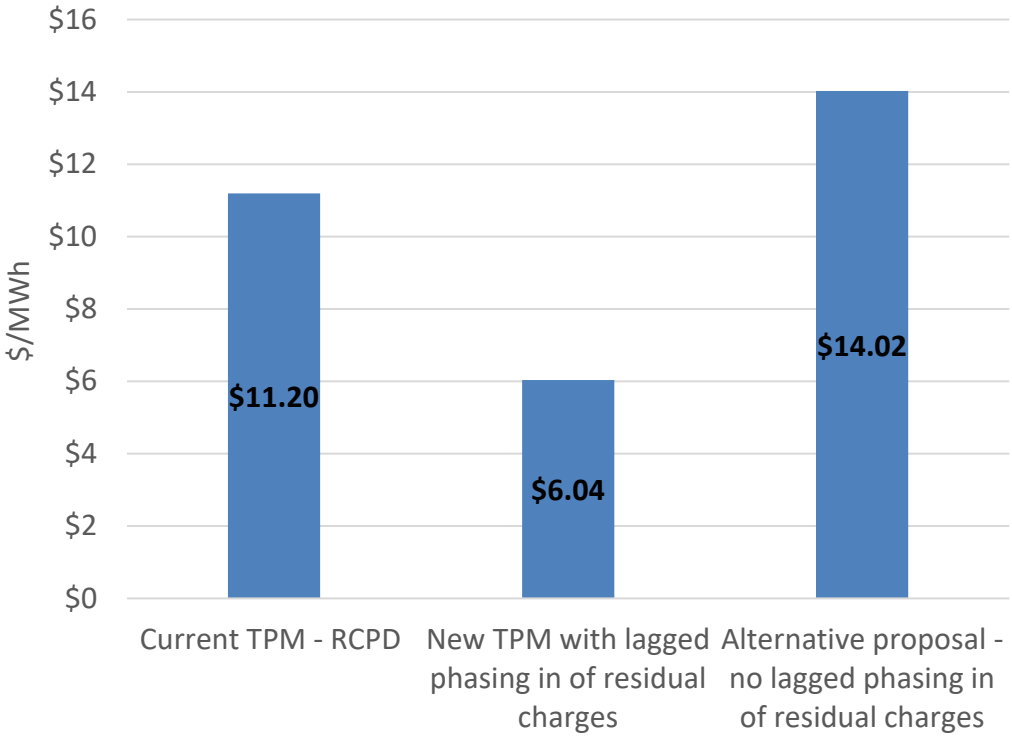
[www.mataura.com](http://www.mataura.com)

## Mataura Valley Milk TPM response

Our recommendations below will help deliver a TPM that better meets the Authority’s statutory objective.

TPM Proposal	MVM	Recommendation
<b>Benefit based charge (Sections 13 – 30 of the Guidelines)</b>		
Residual charge for a new entrant and expanding customer adjust with a lag and a gradual ramp-up	Strongly support	<p>We strongly support the Authority’s proposal that the residual charge for a new entrant customer ramp up gradually with a lag, such that a new entrant entering in year one begins to pay the residual charge in year 5 and pays a full-scale residual charge from year 8.</p> <p>We are facing an investment decision to replace process heat coal boiler with an electrode boiler plant. The following chart shows our modelling of the expected transmission charge (excluding connection charges) under the current TPM, the TPM with a lagged phasing in of residual charges, and Transpower’s alternative proposal with no lagged phasing in of residual charges.</p>



TPM Proposal	MVM	Recommendation								
		<p><b>Average TPM charges 2023 - 2030, \$/MWh</b></p>  <table border="1"><thead><tr><th>Scenario</th><th>Average TPM charges (\$/MWh)</th></tr></thead><tbody><tr><td>Current TPM - RCPD</td><td>\$11.20</td></tr><tr><td>New TPM with lagged phasing in of residual charges</td><td>\$6.04</td></tr><tr><td>Alternative proposal - no lagged phasing in of residual charges</td><td>\$14.02</td></tr></tbody></table> <p>The modelling work has highlighted that transmission charges under the proposed TPM for new process heat load will be materially lower in the early years than Transpower's alternative approach.</p>	Scenario	Average TPM charges (\$/MWh)	Current TPM - RCPD	\$11.20	New TPM with lagged phasing in of residual charges	\$6.04	Alternative proposal - no lagged phasing in of residual charges	\$14.02
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		<p>The following table shows the materiality of transmission costs relative to the fossil fuel alternative. The Authority’s proposal would see the benefit-based and residual charges accounting for 12% of the process heat costs from coal (with a carbon cost assumption of \$65/tCO<sub>2</sub>). This increases to 28% under the Transpower’s alternative.</p> <p><b>Transmission costs as a percentage of process heat costs of coal</b></p> <table border="1"> <thead> <tr> <th></th> <th colspan="2" style="text-align: center;">Transpower's alternative - no Lagged phase in lagged phasing in of residual of residual charge charge</th> </tr> </thead> <tbody> <tr> <td>Cost of process heat from Coal at \$65/Ton CO<sub>2</sub>e in \$/MWh</td> <td style="text-align: right;">\$ 50.0</td> <td style="text-align: right;">\$ 50.0</td> </tr> <tr> <td>Transmission costs (\$/MWh)</td> <td style="text-align: right;">\$ 6.0</td> <td style="text-align: right;">\$ 14.0</td> </tr> <tr> <td><b>Transmission costs as a percentage of heat costs</b></td> <td style="text-align: right;"><b>12%</b></td> <td style="text-align: right;"><b>28%</b></td> </tr> </tbody> </table> <p>Transmission costs at \$14/MWh will materially impact our project’s economics putting the overall project at risk. As such, we strongly support lagged application of the residual charge to new load.</p> <p><b><i>Pass through of transmission costs by distributors risks undermining the Authority’s intent</i></b></p> <p>A separate but related issue is how our local distribution company intends to pass through transmission charges to new process heat load. From our discussions it is not clear whether transmission charges to new load customers will be passed through on an incremental (i.e. the incremental transmission costs of new load to the network being passed through to the new load customer) or average basis (i.e. the average transmission costs across the network applied to the new load customer). We are concerned that our local network will pass through charges in a manner that is inconsistent with the proposed TPM. We strongly encourage the Electricity Authority to be clear that they expect local networks to reflect the lagged residual charge in the pass through of transmission charges to customers with new process heat load.</p>		Transpower's alternative - no Lagged phase in lagged phasing in of residual of residual charge charge		Cost of process heat from Coal at \$65/Ton CO <sub>2</sub> e in \$/MWh	\$ 50.0	\$ 50.0	Transmission costs (\$/MWh)	\$ 6.0	\$ 14.0	<b>Transmission costs as a percentage of heat costs</b>	<b>12%</b>	<b>28%</b>
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