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Submission on the consultation, Evolving multiple retailing and switching

Q1. Do you have any comments on our revised proposal for MTRs?

I strongly support the Authority's revised "simplified" MTR proposal. Shifting toward a standalone process in the registry for MTR-adopting ICPs directly addresses the "operational complexity" and implementation costs previously used by legacy participants to stall innovation.

However, there is a critical inconsistency in the Authority's current stance:

The Competition Gap: The Authority suggests that businesses can simply access peak rebates through their existing consumption retailer. This contradicts the Authority's goal to "promote competition" and "enable choice". Without MTR, a consumption retailer maintains a monopoly on the rebate transaction, allowing them to "bundle" it into uncompetitive contracts.

The "ISP-Model" Precedent: I propose the Authority adopt the structural model used in the New Zealand UFB rollout. Just as a single physical Fibre ONT supports multiple virtual channels for independent service providers, the "Virtual ICP" enabled by MTR should allow a Secondary Trader to operate without the primary retailer acting as a gatekeeper.

Virtual Meter Channels: I support the finding that this approach sets a foundation for virtual power plants (VPPs) and Vehicle-to-Grid (V2G) services. To be effective, this MUST support bi-directional trading (independent import and export) to allow Distributed Grid Assets (DGAs) to respond to peak demand signals.

Q2. Is there further information you can provide that may improve the evidence base for our assessment of (a) costs and/or (b) benefits?

Regarding (a) Costs:

Reduced Implementation Barriers: The Authority correctly identifies that a "targeted approach" significantly lowers costs for the 97% of households not currently participating in MTR.

Bypassing Hardware Expense: By utilising a Virtual ICP layer for "Shadow Settlement," innovators can deliver MTR benefits without requiring the 18-month overhaul originally identified, as participants can implement "manual or subsidiary systems in the near-term".

Regarding (b) Benefits:

National Security & GDP: The benefits are currently underestimated. The "Virtual ICP" model allows for the optimal deployment of battery capacity. This provides a distributed alternative to expensive, long-term LNG or fossil fuel peaking deals, which primarily benefit overseas companies rather than New Zealand consumers.

Economic Sovereignty: Energy innovation is the "fossil fuel" of the future. By hosting energy-intensive AI and multinational operations on a decentralised, high-tech grid, New Zealand can generate "royalties" through productivity and direct cost recover from multi billion dollar tech companies wanting to enter the market, rather than exporting wealth for fuel imports. The Authority's benefit assessment is too narrow. By enabling MTR and VPPs, we can attract massive overseas investment in AI Data Centres and High-Tech Manufacturing that require New Zealand's abundant renewable resources.

Exporting Energy via Contracts: Currently, generators focus on domestic "choke-point" pricing. If they embraced MTR/VPP infrastructure, they could sign firm, long-term export contracts with global multinationals.

The "AI Tax": Under this model, the "world pays our bills." Large multinationals pay a premium for firm, green energy, effectively subsidising the infrastructure for New Zealanders.

Increased Profitability: If generators "got out of their own way," they would be more profitable than they are today. They would transition from being domestic utilities to being global energy exporters via high-value data, while NZ consumers reap the rewards of a decentralised, subsidised grid.

Rural and Community Wealth: This model allows schools, churches, and farms to monetise under utilised assets, turning them into grid-positive participants.

Q3. Do you agree the benefits of the proposed Code amendments are likely to outweigh the costs? If not, please explain why not.

Yes. I agree that the benefits likely outweigh the costs.

The independent CBA confirms net economic benefits can be achieved if even a small percentage (0.36% to 1.77%) of residential battery installations contribute to reducing peak consumption. The Sapere CBA is fundamentally short-sighted because it focuses on a 0.36%–1.77% uptake in residential batteries. This ignores the significantly higher impact of Distributed Grid Assets (DGA) in the rural and community sectors:

Schools & Churches: There are approximately 2,500 schools and thousands of community buildings across New Zealand. These sites often have massive unutilised roof space and are vacant during peak evening demand. A school with a 100kW solar/battery system provides the grid support of 20–30 homes but requires only one virtual ICP.

Dairy & Agriculture: New Zealand has roughly 11,000 dairy farms. A typical dairy shed peak coincides with the morning grid peak. By enabling MTR, a farmer can trade their battery capacity independently, providing high-volume "firming" to the local lines company that a cluster of residential batteries cannot match in reliability or scale.

Commercial Load Shifting: One rural business or school acting as a DGA provides a huge benefit to the grid. The CBA fails to account for the fact that MTR allows these large-site owners to bypass the primary retailer's margin, which currently makes these large-scale installs commercially unviable.

The "Anode Boiler Absurdity": A National Efficiency Failure

There is a profound absurdity in the current market structure that the Authority's CBA ignores: The Fonterra/Huntly Paradox.

It is an economic absurdity that New Zealand's largest consumer is installing massive Anode Boilers to replace coal, while the lack of a decentralised Distributed Grid Asset (DGA) network forces Huntly to stockpile coal to manage the resulting peaks. Every household in New Zealand currently pays an "invisible coal tax" through inflated hedging costs to subsidise this industrial electrification. Load shifting is not the answer; on-site orchestration is. Our model proves that every Fonterra site should have its own utility-scale battery, which the grid can signal to stabilise the grid and to firm its own demand without taxing the public.

The Tiwai Point HVDC Failure

The current grid architecture for Tiwai Point is inefficient. We are losing significant energy through multiple AC-to-DC conversions. The modern solution is a direct HVDC link from generation straight to an on-site battery array at Tiwai. This removes the conversion losses and provides the grid with a massive, high-speed reserve.

By ignoring the rural and community sectors, the Authority is underestimating the potential "avoided transmission/distribution cost" by at least 300-500%. However, to reach these targets, the Authority must ensure:

Prudential Waivers: The "Secondary Trader" should be treated as a Service Provider (ISP model), bypassing the prohibitive retail cash bonds that currently protect incumbent margins.

Accountability: The Authority must not let "the tail wag the dog." Legacy participants' claims of "complexity" must be benchmarked against the objective third-party technical solutions now available.

By confirming these Code amendments, the Authority will help "reshape New Zealand's power system to be more decentralised and consumer focused" and prevent the country from being "suckered" into a high-cost, fossil-fuel-dependent future.

Addendum: Statutory Obligations under the Electricity Industry Act 2010

1. Failure of the Section 15 Mandate

Under Section 15 of the Act, the Authority has a mandatory statutory objective to promote competition and efficient operation for the long-term benefit of consumers. By allowing legacy industry "complexity" to stall MTR, the Authority is permitting market capture. A market cannot exist where the primary retailer acts as a sole gatekeeper for peak export rebates (Taskforce 2A/2C); without MTR, there is no second buyer, which is a fundamental requirement for the "competition" the Act mandates.

2. Breach of Economic Efficiency (Section 15(1)(a))

The Act requires the promotion of an "efficiently operating" industry. Relying on high-cost, carbon-intensive fossil fuel peaking (LNG/Coal) while blocking the deployment of Distributed Grid Assets (DGA) via Virtual ICPs is a direct failure of economic efficiency. The "ISP-style" settlement model—mirroring the successful NZ UFB rollout—proves that independent multi-provider billing on a single physical connection is a solved technical problem. Continued delay to protect legacy billing systems is economically inefficient and contrary to the Act.

3. National Interest and the "AI Royalty"

Under its broader remit to ensure reliable supply, the Authority must consider the impact of the global AI arms race on New Zealand's GDP. By operationalising bi-directional virtual meter channels, the Authority enables New Zealand to attract global AI investment through firm, long-term energy contracts. This effectively places an "AI Tax" on multinationals to fund our national grid infrastructure, rather than exporting New Zealand wealth to overseas fuel providers for LNG imports.

Conclusion: The Authority must now choose between the protection of legacy margins or fulfilling its legal duty under Section 15 to enable a decentralised, competitive, and sovereign energy future for all New Zealanders.