Thanks for the opportunity to comment further on new ways to empower electricity consumers.

Cross-Submission 1:

Response to Rewiring Aotearoa on Symmetrical Export Tariffs (SET)

I acknowledge and support Rewiring Aotearoa's fundamental concern that principles-based pricing, while ideal in theory, risks being unenforceable in practice without specific mechanisms embedded in the Code. Their argument for mandatory Symmetrical Export Tariffs (SET) provides a structured and equitable alternative that rewards consumers for the network value they provide when exporting energy at peak times.

However, Rewiring Aotearoa appears to position SET as a more defined and potentially rigid pricing mechanism. In the absence of specific clarification, I propose an interpretation of SET that supports its **dynamic** application while ensuring enforceability:

- If SET were calculated on the basis of 30-minute market settlement periods, using inputs such as spot price and published long-run marginal cost (LRMC) for each distribution area, a clear and transparent **export rate could be derived for every interval**.
- This approach would ensure that the resulting rebates or payments are grounded in both market conditions and infrastructure deferral value, making them both economically meaningful and technically verifiable.
- Because both the spot price and LRMC are published or publishable values, this model of SET would be **enforceable** by the Electricity Authority (EA) and consistent with the intent of cost-reflective, non-discriminatory pricing.

However, one critical refinement must be considered: **spot price inputs should not be treated as a single national average.** To ensure true alignment with actual network conditions, SET calculations should reflect **regional or even local variations** in spot prices and network congestion. For example:

- A cold snap in Southland may create a completely different stress profile than a cloudy afternoon in Auckland.
- Similarly, high solar generation in the East Cape during midday might warrant a different export incentive (spot price) compared to overcast Wellington.

This **locational** (nodal) dimension is essential to avoid distortionary incentives and to reflect the true marginal value of export to the network.

In summary:

- I support the intent of SET as a tool for enforcing fair, symmetrical treatment of export and consumption.
- I advocate for a version of SET that is dynamic, interval-based, and enforceable via published pricing inputs. Through price signals directly related to **local** voltage/frequency. Higher the voltage, lower the electricity price.
- I strongly urge the EA to require that SETs be locationally refined rather than based on a flat national spot price. The more delivery assets required, the greater the Electricity Distribution Business (EDB) charge.

By integrating these refinements, the EA can implement a system that upholds the strengths of both principles-based flexibility pricing and the structured clarity of SET, ultimately benefiting consumers, prosumers, and the network.

Cross-Submission 2:

Unlocking Consumer Value Through a Distribution System Operator (DSO) Model

Most EDBs operate under a traditional model: build infrastructure, earn regulated returns, and pass costs to consumers. Retailers profit through flat pricing and margin, with little incentive to enable consumer participation or reflect network costs.

The EA's proposal challenges this by introducing dynamic, cost-reflective pricing that values consumer exports during peak demand. This disrupts the current passive model by recognising the real-time value of distributed energy.

The response from many EDBs suggests resistance. For example, Horizon Energy states:

"Horizon Networks supports the principle that users of the network should be fairly rewarded... **but** is concerned that the proposed timeframes do not appreciate the work required to implement and [are] conflicting with regulator priorities."

This is "delay" and reflects a reluctance to shift business models. But there is an alternative.

Adopt a DSO Model: Enable EDBs to Orchestrate Flexibility

EDBs should be rewarded for coordinating demand and generation behind the meter, not just building assets. This means:

- Allowing EDBs to earn returns for **orchestrating consumers** to reduce local peak load
- Enabling mechanisms like **MTR (multiple trading relationships)** where prosumers export excess solar directly to neighbours (e.g. into hot water cylinders)
- EDBs can **clip the ticket** by delivering the electricity through their network

However, EDBs cannot manage what they cannot see. Currently, metering companies and retailers hold a monopoly on consumer half-hourly (HHR) data. EDBs receive delayed or aggregated data, if any, and have no access to real-time consumption or export trends on their own network. This is a critical barrier to enabling coordination.

If EDBs are to take on orchestration, they must have:

- **Timely access to HHR data** from all meters on their network
- **Standardised data feeds** to support transformer-level planning and load balancing
- **Regulatory direction** that breaks the retailer–metering stranglehold over data and makes it operationally available to EDBs

I strongly support the EA and the Commerce Commission breaking the smart meter monopolies. Consumers should have the right to own regulated smart meters that comply with national standards and integrate with orchestration platforms. Metering should be a neutral enabler of system coordination, not a private bottleneck.

A smart meter should be treated as a **regulated financial measurement device**, akin to a fuel pump or supermarket scale. It should be certified to a national measurement standard for energy traded, not owned or controlled by parties with a financial interest in the readings. Like all tools of measurement used in commercial transactions, it must be accurate, auditable, and trusted by all market participants.

Internationally, this principle is already recognised:

- In **Germany**, smart meters must comply with *Mess- und Eichrecht* (measurement and calibration law), ensuring the meter is treated as a legal measuring instrument.
- In **the United Kingdom**, smart meters are regulated under *Ofgem* and *National Measurement Office* standards, with functionality and interoperability mandated across suppliers.
- In **Australia**, under the *National Electricity Rules*, metering providers are accredited, and meters must be approved by the Australian Energy Market Operator (AEMO), ensuring consistent consumer protections.

New Zealand should adopt a similar approach, positioning the smart meter as a certified, neutral instrument essential for a flexible, prosumer-driven electricity system. Its role is not to serve a retailer or metering business—it is to **certify the value of energy flows**, especially as consumers become energy sellers as well as buyers.

The EA should proceed with its reforms and support the transition by:

1. Mandating dynamic, export-reflective pricing via Code
2. Developing a regulated incentive framework for orchestration and avoided capex
3. Supporting local peer-to-peer trading through network billing models
4. Ensuring EDBs and consumers have real-time visibility by mandating HHR data access using Consumer Data Right (CDR) legislation
5. Enabling consumer ownership of smart meters, subject to certified performance standards
6. Recognising the smart meter as a national financial measurement standard, separate from retailer interests

This shifts their role from passive asset managers to **DSOs** who actively manage grid stability with consumer-side flexibility.

The current system cannot deliver affordable, stable energy if it continues to ignore the value consumers can provide. It's time to pay them, **and EDBs**, to work together.

Graeme Weston

6 April 2025

[redacted]