

As with previous submissions, I am a private individual working in IT. From time to time I am tasked with software modifications to support changes in the Code and surrounding processes. I have three comments on the proposal.

Wash-ups and correcting long-standing errors

The present wash-up cycle is 1-3-7-14. The proposal is to change this to 1-5-13. While I can see benefit from removing one wash-up from each month's processes so reducing the soon-to-be-considerable monthly data volumes by 25%, I do not see benefit from bringing the final wash-up cycle forward.

In fact, I see this as both detrimental and inefficient. If anything I would be moving the final cycle in the other direction.

My rationale is as follows:

1. The shortest meter installation inspection cycle is for category-5 metering; at 19 months (Code, Schedule 10.1). Lesser category installations have longer cycles but the basis of this discussion is Cat-5 metering where the largest errors are possible.
2. It is possible for a Cat-5 installation to have a metering issue (e.g. a transformer recorded with the wrong ratio), compromising the accuracy of volume readings.
3. By the time the inspection happens and the issue is discovered, up to 18 months of incorrect volume readings could have been processed. This isn't a theoretical problem; I know from a few years ago of a Cat-4 volume error arising from a CT ratio being recorded incorrectly that was found after 24 months.
4. Once an error has been detected, there will be a number of historical meter readings to be adjusted. This has potential to impact:
 - the retail bill
 - retailer's wash-up volume submissions to both the distributor and the reconciliation manager
 - reconciliation and settlement
 - the distributor's invoice to the retailer
 - the distributor's settlement residue allocation for affected periods
 - use of money adjustment for all distributor invoices that are affected
5. The Code limits how far back reconciliation and settlement can be adjusted. The last wash-up is presently at 14 months.
6. Outside the Limitation Act 2010 that sets a 6-year boundary, there is no limit on how far back a distribution volume invoice can be adjusted. The Default Distribution Agreement (Code, schedule 12A.4, Appendix A clause 9.8) states that use of money adjustments are capped at 18 months after the previous invoice. Assuming the distributor processes adjustment invoices at month 14 (volume changes and settlement residue) this shows the Code anticipating a tail of 32 months (14 + 18).

The issue relates to:

- (i) reduction of the extent to which volume corrections may be backdated for reconciliation and settlement; and
- (ii) increase in the number of months of undesirability where distribution invoices could be on a different volume basis than that used for reconciliation and settlement. If it is acceptable for a distributor to revise a volume-based invoice beyond 14 months based on revised metering data, then exactly the same argument holds for reconciliation and settlement.

Participants will still have to do a final wash-up. It makes no difference to participant workload, reconciliation data volumes etc. whether this final wash-up is at month 13 or 14. Or month 15. The proposal being consulted on here will reduce the ability of a retailer to correct reconciliation and settlement for a CT ratio or similar error in a high-category installation discovered during inspection, for no apparent benefit to be gained on the other side.

To maintain the *status quo*, the obvious mitigation for retailers is to ask their MEPs to bring forward the inspection cycle for high-category metering installations by one month. The proposed change therefore incentivises inefficient activity around the timing of meter installation inspections, particularly for higher category installations.

I suggest leaving month 14 where it is, or moving it backwards. I also suggest making it clear that the Authority is relaxed about distributor invoices being on a different volume basis to that used for reconciliation and settlement, or revising DDA clause 9.8 to impose the same backdating limitation on distributor volume invoice corrections to those for reconciliation and settlement.

The EIEP1 Regulation

EIEP1 clauses 40(d) and 40(e) reference the 1-3-7-14 wash-up cycle. The EIEP1 protocol is a regulation. It needs to match the requirements of the reconciliation timing in the Code, or everyone will be forced to either contract-out or produce month-3 files anyway:

"Unless a distributor has requested otherwise, and the trader agrees (and that agreement is recorded in writing), EIEP1 must be used..."

"as a minimum, files must be provided for revision month 3..."

Privacy Act

There is no reference in the consultation document regarding the Privacy Commissioner being consulted over the proposal to require retailers to hand over all HHR volume data in the country to the same private-sector organisation that runs the New Zealand stock exchange; all such data identifiable to the ICP.

The word 'privacy' does not even appear in the consultation document.

HHR granularity at an ICP level is not information the Reconciliation Manager needs. For reconciliation, they need to derive retailer volume in each direction, for each trading period, for each balancing area. Reconciliation can be performed starting from monthly totals and profiles (as now), or with more accuracy, from HHR aggregation.

What the provision of aggregated data would preclude is the assembly of a database of all HHR volume data in the country. At clause 3.50, the consultation document openly admits such a database is one of the intended outcomes:

"However, this alternative would not remove the siloing of metering information by reconciliation participants, which is one of the benefits of the Code amendment proposal"

But a benefit to whom? The Code (Schedule 12A.1, Appendix C) contains protocols, and privacy provisions, covering the process of retailers providing exactly this information to distributors, including provisions regarding the purpose of that data and how it is to be handed and secured, and a blockage preventing re-sell.

There are no similar provisions regarding the disaggregated HHR data about to be given to the Reconciliation Manager. Such a concentration of data has high value. Both the consultation document and Code are silent on who owns this database, how it can be used, and who can benefit from its re-sell.

Such a concentration of data also has privacy implications. There are research papers that describe using HHR data to identify the devices used by the household, computing the household occupancy, computing socio-economical metrics related to the household and even the unemployment status of the related individuals.

None of this has even the remotest relevance to the reconciliation process.

Even removing the ICP number from the data set is insufficient. There are published papers covering this topic e.g.

Voyez, A., Allard, T., Avoine, G. *et al.* The privacy cost of fine-grained electrical consumption data. *Sci Rep* **15**, 17391 (2025).
<https://doi.org/10.1038/s41598-024-78285-7>

which can be found online at

<https://www.nature.com/articles/s41598-024-78285-7>

Aggregating the HHR data for reconciliation would remove the most significant privacy concerns.

If the intention is to create a database of all HHR readings, then this should be a separate consultation, and handled within a framework that recognises its purpose, the use to which it will be put, who will benefit from the value of the intellectual property created by putting this data all in one place, and addressing the privacy implications