Wellington Multiple Trading Trial Report #2
July to December 2024

Introduction

1. A detailed report has been provided to the Electricity Authority for the period 1 July to 31 December 2024, as a condition to the Code exemptions that allow the Wellington Multiple Trading trial to go ahead. This document provides a summary version of that report for general distribution.

Progress Update

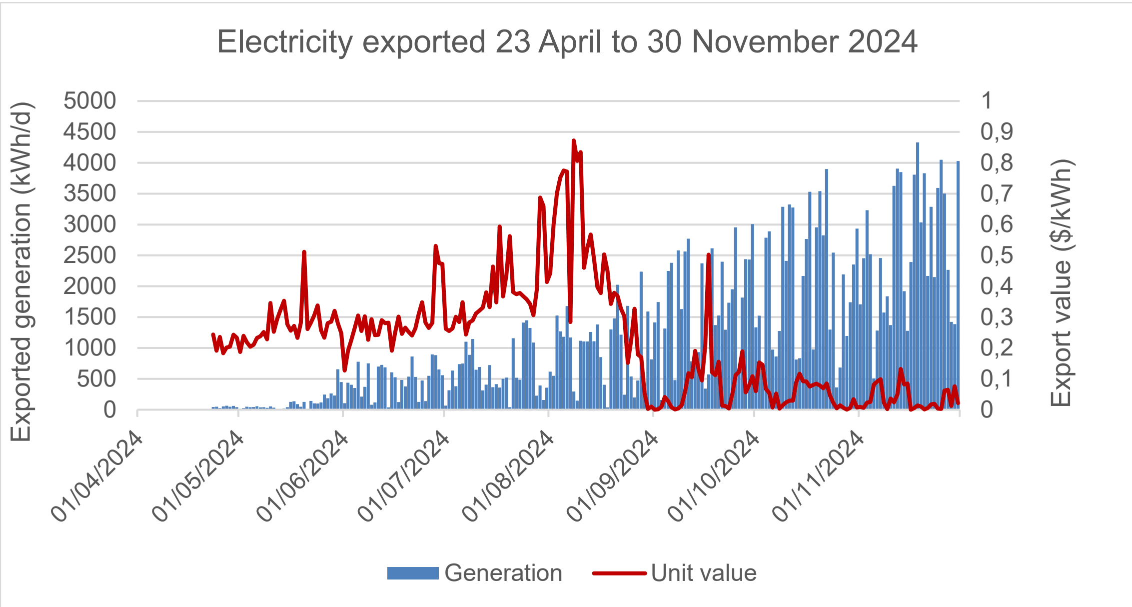
2. As at the end of November 2024 a total of 174 sites are live in the trial. Participants were brought into the trial environment in tranches.
3. A further six sites are available to be included but ongoing delays in getting import/export meters installed at the sites mean that they cannot be included at this time. We do not expect to add any further participants to the trial.
4. No sites have been removed from the trial and Paua to the People reports that there have been no attempts to switch any of the secondary (generation) ICPs.

Generation update

5. As of 30 November 2024, the Wellington Multiple Trading trial has been live for seven months. It has generated a total of 263 MWh and raised $34,926 in revenue (from the sale of exported solar generation at wholesale (spot) electricity prices).

	Units (kWh)	*Revenue ($)*	*No. of participants*
Apr	386	83.10	5
May	3,535	986.53	25
Jun	14,081	4,159.76	85
Jul	19,564	6,835.67	126
Aug	30,806	13,066.30	169
Sep	51,407	3,888.74	169
Oct	64,182	3,377.55	174
Nov	78,822	2,530.38	174
Grand Total	**262,784**	**34,926.85**	

6. July and August were colder, drier and less windy than usual. This resulted in high electricity spot prices. From September to November as daylight hours grew, solar energy production increased providing us with additional exported units. However, low spot prices resulted in low revenue over this period.
7. There has been a large variability in the average price achieved per kWh but the average of $0.17 per kWh is consistent with the average wholesale spot price over the last two years.



8. The price achieved to date is approximately double the export credit value that customers would have received from their electricity retailer (based on data from Kāinga Ora).
9. The MTT is enabling Kāinga Ora to better understand the costs, revenues and benefits of installing and maintaining solar panels on our properties. Initial numbers look promising, but we do not consider the pilot has been operating for a sufficiently long period to conduct a robust analysis.
10. In the first six monthly report, estimated total revenue for a year was between $150,000 and $200,000. This figure assumed 200 trial participants and was based on total generation capacity of approximately 1.3 MW, self-consumption of 30%, an average 4,400 kWh per household per year exported and an average export value of between 17c and 23c per kWh.
11. Actual revenue has fluctuated significantly based on the weather and spot prices.

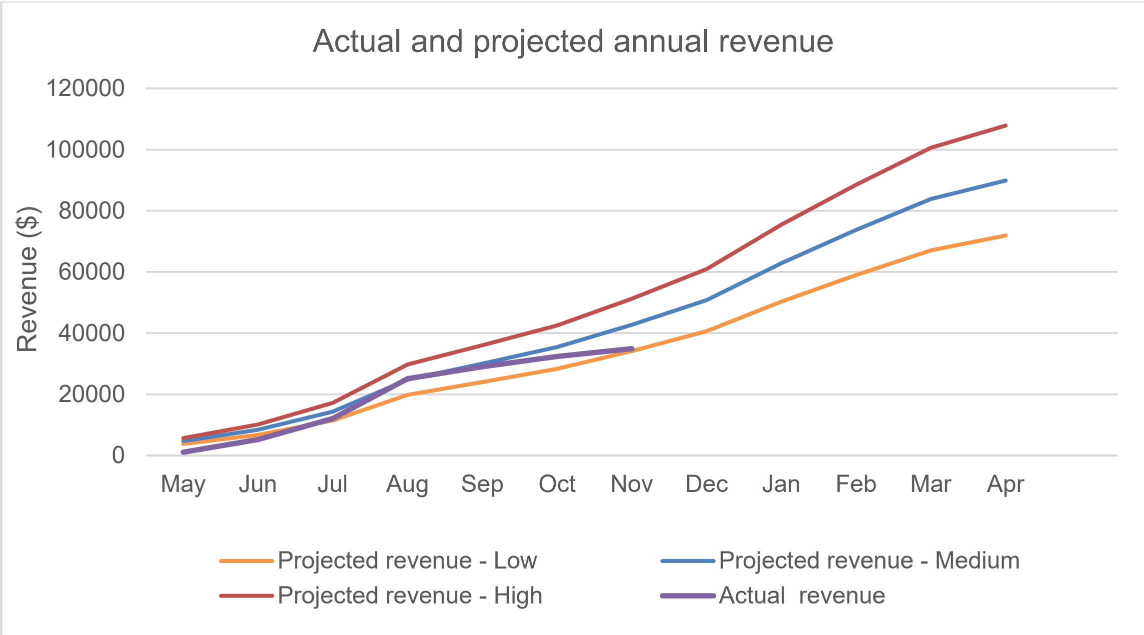
12. We have reforecast our revenue because:

a. Participants were added to the trial overtime and the final total number of participants is lower than our original target of 200

a. Total generation was 23.5% below forecast

b. Average price achieved 33% below forecast.

13. Our reforecast revises these estimates downwards and suggests we will generate between $70,000 and $110,000 with an average of $520 per home each year that the trial runs.



Assessment of benefits

14. Kāinga Ora is using the data produced by the MTT to develop the future direction for Share the Sunshine programme (the customer-facing name for the trial) with a view to make the programme self-funding. This work is ongoing.

15. In the next six-monthly report Kāinga Ora will provide an indicative:

a) Net Present Value (NPV) analysis of the MTT-enabled investment in distributed solar PV generation assets including a valuation on non-financial benefits quantified using the Treasury CBAX model

b) Return on Investment (ROI) under different revenue and cost scenarios.

Issues and future regulatory reform considerations

16. Electricity Authority (EA) exemptions require reporting on any notifications received, and issues raised during this period.

Notifications

17. This report is required to provide “a register which lists notifications from any other participant about the trial, including the substance of the notification and when the notification was received.”

18. No notifications have been received by any of the participants in this trial.

Trial issues

19. This report is required to provide information on “any information that may inform consideration of potential future Code changes, specific to the trial, or to multiple trading relationships more widely.”

20. Full details on two issues raised in this period and potential regulatory implications have been provided below.

Double reconciliation issue

21. On 21 August 2024 the EA informed Kāinga Ora of a potential issue around duplicate submission of generation. An auditor picked up the issue as part of an annual audit. Initially the auditor noticed duplicate generation at seven ICPs.

22. The EA contacted Kāinga Ora and the project team began to investigate the issue, focused on the following steps:

    a) check that all trial ICPs were set up correctly in the Electricity Registry

    b) understand what had gone awry with reconciliation process

    c) ensure that customers were not negatively impacted

    d) and identify if this issue was replicated at any other trial ICPs.

Investigation into the setup of trial ICPs by project team

23. The following checks were undertaken:

a) Paua to the People confirmed all ICPs included in the trial were correct in the Registry for both the primary and secondary ICP. This was also confirmed independently by the auditor for Paua to the People which also reviewed all of the trial ICP attributes.

b) Bluecurrent confirmed that they did not send generation data to the primary consumption retailers for the ICPs in question.

Investigation

24. The project team met with the Compliance Manager at the retailer in question (The Retailer) and an operational staff representative on 10 September 2024.

25. The project team provided The Retailer's reconciliation team with a list of ICPs of their customers in the trial. There were 14 in total.

26. The Retailer confirmed that their internal reconciliation process had not been amended. This resulted in their system estimating generation revenue for Registry data it no longer received and applying a credit to customers' accounts.

27. This impacted customers in two ways. Customers were issued with a bill that included a credit. When the issue was picked up these bills were cancelled and reissued without the credit. In some cases, the bills were paid before they were reissued, and customers were asked to reimburse the generation credit.

28. The Retailer checked whether any customers were affected and confirmed that they did not receive any complaints or queries. The project team were concerned that the customers were negatively impacted when they were asked to reimburse the generation credit after it was reversed. After raising this concern, The Retailer decided to reimburse the customers as a sign of good faith and support for the trial.

29. At this time The Retailer contacted all affected customers to acknowledge the issue and confirm that they would not be receiving generation credits going forward.

30. The project team is grateful to The Retailer for its collaborative problem-solving approach to this issue, support for the trial and commitment to ensuring customers were

not negatively impacted. The experience provided useful real-world information about the multiple trading model and issues to look for if it were to be rolled out at scale.

Investigation into the other retailers

31. The project team contacted NZX to see if the issue was broader occurred at other retailers. However, the reconciliation manager at NZX does not have visibility of individual ICP identifiers as all submission information is aggregated by traders before passing the information to the reconciliation manager. This process relies on traders ensuring the data they provide to the reconciliation manager is correct and aligns with the Registry.

32. Paua to the People checked the trial participants that had non-half hourly (NHH) reconciliation. There were 69 ICPs from seven retailers:

- Contact (15)
- Genesis (14)
- Meridian (8)
- Powershop (6)
- Pulse (4)
- Switch (1)
- Mercury/Trustpower (22)

33. The project team reached out to all retailers listed above to ensure that retailers were all aware of the trial and had passed on information internally to the operations team and to double check there were no further compliance issues with customers included in the trial.

34. The project team have concluded that the duplication of generation issue was not occurring elsewhere in the market.

Privacy

35. A market participant raised a concern with the EA around privacy in the past few months.

36. As part of the trial setup a second ICP identifier was added at each participating address. On the Registry ICP identifier details were added in the distributor installation details. This means that someone with knowledge of the trial could in theory identify participants as Kāinga Ora customers.

37. Kāinga Ora deemed this risk to be low for several reasons:

a) the information isn't personal and similar data that identifies Kāinga Ora properties is available to the public in other locations and;

b) only people with an understanding of the Registry and knowledge of the trial would be able to identify a customer address.

38. The project team decided not to escalate this issue further due to its low risk.

39. We note that if this MTR methodology was adopted into the Electricity Code as the Registry currently stands, the privacy issue will no longer apply if other retailers adopt the methodology. This is because participation in MTR will no longer identify only Kāinga Ora customers.

Regulatory reform considerations

40. The issue the Kāinga Ora MTT project team encountered in August of double counting injection volumes occurred because the retailer was relying on its own ICP attribute data rather than keeping in sync with the Electricity Registry. This is something that may be checked by auditors in retail audits, though these may occur infrequently (i.e. 18 months apart)

41. To scale the trial up to the wider electricity market, the following Electricity Code changes would need to be considered:

a) Amendments in line with the exemptions granted for this trial. [1]

b) Amendments to ensure that the

   i. Retailer at the consumption ICP identifier:

      1. may electrically disconnect or electrically reconnect the generation ICP identifier customer for which it is not the trader in the Registry

      2. is responsible for consumer care obligations

      3. change of MEP or meter configuration at an ICP will require agreement of functionality with other retailers dependent on the metering information

   ii. Retailer at the generation ICP identifier (or "child" ICP)

      1. does not have electrical disconnection or electrical connection rights

[1] Hyperlinks to all the exemptions can be found on the Ara Ake website (bottom of page): https://www.araake.co.nz/project/kainga-ora-mtt

2. understands that a credit issue between the customer and consumption retailer may include disconnection of its customer
3. cannot change the MEP, and must liaise with the consumption retailer

a) Ensure that the final solution allocates channels to meters at an ICP identifier that only relate to that ICP identifier

b) Retailer compliance issues that may otherwise not be visible. There may be audit issues and education or compliance issues with retailers on its back-office system functionality, where retailers may not be managing change notifications from the Registry in a timely manner.