



WEEKLY REPORT

Kāinga Ora – Homes and Communities

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For period ending 29 October 2021

43

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1. Updates

Infrastructure Acceleration Fund update

Initial engagement has been undertaken by Kāinga Ora with the applicants for 9(2)(f)(iv) Porirua Central – Kenepuru Landing proposals following joint Ministers' agreement that these be explored as potential fast-track proposals, with a view to funding and housing outcome agreements before the end of 2021.

Both applicants have responded positively to the proposed fast-track process. Planning and resourcing for the process is in place and an engagement model has been agreed. We are now proceeding in accordance with the timeline below, with a view to seeking Ministerial approval for agreements in the week commencing 6 December 2021.

This is an ambitious timeline which all parties are committed to achieving; however, in order to ensure that proper due diligence and evaluation are undertaken, there are no guarantees that funding and housing outcome agreements will be able to be executed within the timeframe.

Fast-track proposals timeline:

- weeks commencing 1 and 8 November: Information exchange; due diligence and evaluation; key terms of IAF agreements
- weeks commencing 15 and 22 November: Information exchange; due diligence and evaluation; details of IAF agreements
- week commencing 29 November: Applicant execution of IAF agreements; Kāinga Ora Board Committee approval
- week commencing 6 December: Ministerial approval; IAF agreements fully executed
- week commencing 13 December: Announcements.

Caroline McDowall
General Manager Commercial

Energy Sharing RFI

Kāinga Ora is putting an RFI out to the market on 1 November 2021, seeking information from potential partners to understand how we can share the benefits of solar Photovoltaic (PV) systems between multiple public housing sites.

The opportunity through this work is to establish a more equitable low carbon solar energy solution that helps to relieve energy poverty for Kāinga Ora tenants by making excess energy generated on one property available to the broader Kāinga Ora community.

The RFI includes a high level overview of the Renewable Energy Trial pipeline, to give sufficient context on location and size for market participants to respond. The RFI documents are attached for your information.

Gareth Stiven
General Manager Strategy Finance and policy

Meeting with Victorian Salvation Army

Last week we met with Victorian Salvation Army, a social housing provider in Australia, to learn from their experience of operating with COVID in the community. HUD, MSD and our Board Chair also attended this session. This discussion included how they worked with their people and supported their customers, and to help us better understand the issues and challenges that arose for them. Matters raised that we will use to inform our planning include:

- Access to food, medication, mental health support and catering to a range of dependencies have been a priority from a customer perspective with home isolation and quarantine.
- Home quarantine has been used for a long time in Victoria in combination with quarantine facilities.
- Knowledge of customer needs assisted significantly in terms of taking the customer on the journey associated with home isolation and quarantine. There are personal challenges of being totally homebound including social isolation and the need to address this.
- Alcohol and other dependencies have resulted in quarantine breaches. Partnering with a health provider has assisted to approach this from an expert medical perspective and enabled access to alcohol, tobacco etc.
- The biggest challenge with isolation and quarantine at home has been managing in high density environments and mixed ownership environments (navigating body corporates and real estate agencies).
- When there have been surges in infections there has been considerable pressure because the health system has been unable to manage. At those points, responsibilities which the health system would have carried have fallen away. This has required real flexibility and a renewed focus on the core objective of quarantine – the protection of the customer, team members and the public.
- Good workforce planning to avoid employee burn-out and sickness was needed.
- Vaccination is compulsory for the sector in Victoria. The public health order which has made vaccination mandatory in Victoria includes front and back office team members so encompasses all employees.

Nick Maling
General Manager National Services

Downer vaccination event

Kāinga Ora Maintenance Partner, Downer/Spotless is working with the Cause Collective/Samoa Tutu Faatasi and Baders doctors, to run a vaccine event at their Wiri site on 28 October 2021. The event will include a prize giving, as well as food and drink available for all participants.

Caroline Butterworth
DCE Auckland and Northland

2. Advice sent in the past week

Due date to Minister's Office	Title	Minister(s)	Contact person
21 October 2021	Acquisition of Tauranga City Council Social Housing Portfolio AH 21 086	Hon Dr Megan Woods	Daniel Soughtton
21 October 2021	Kāinga Ora – Homes and Communities: renting to non-public housing tenants AH 21 092	Hon Dr Megan Woods	Gareth Stiven

3. Upcoming advice to be delivered in the next month

9(2)(f)(iv)

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9(2)(f)(iv)

4. Kāinga Ora OIA requests

Reference number	Requestor	Topic	Date due to Minister's Office	Date due to requestor
OI 21 345	Office of Nicola Willis	<i>686 Swanson Road</i> Request for emails and reports relating to the property	Tbc	7/7/2021
OI 21 387	Member of the public	<i>14 Bristol Street</i> Request regarding property at 14 Bristol Street	n/a	28/10/2021
OI 21 419	Member of the public	<i>Spreydon</i> Request for number of social houses in Spreydon	n/a	29/10/2021
OI 21 423	Member of the public	<i>Tenancy information</i> Request for information regarding tenancy	n/a	1/11/2021 extended
OI 21 422	Member of the public	<i>Complaints</i> Request for complaints made about tenant in Tamatea	n/a	1/11/2021
OI 21 423	Member of the public	<i>Wood Street</i> Request for documents about Wood Street	n/a	1/11/2021
OI 21 425	Member of the public	<i>Healthy homes</i> Request for information about the healthy homes programme	Minister Williams	1/11/2021
OI 21 402	Member of the public	<i>Wood Street</i> Request for actions Kāinga Ora has taken since April	n/a	1/11/2021 extended
OI 21 246	Member of the public	<i>Property in Whangarei</i>	n/a	3/11/2021

		Request to know if property is a state home		
OI 21 427	Member of the public	<i>Landfill materials</i> Request for information about Kāinga Ora diverting materials from landfill	n/a	4/11/2021
OI 21 452	Member of the public	<i>Policies and manuals</i> Request for manuals and policies relating to requests for tenant relocation	n/a	5/11/2021
OI 21 429	Member of the public	<i>Tauranga purchases</i> Request for a breakdown of all homes purchased in Tauranga and Western Bay	n/a	5/11/2021
OI 21 430	Member of the public	<i>Various projects</i> Request for updates on various Kāinga Ora projects	n/a	8/11/2021
OI 21 417	Member of the public	<i>OSM</i> Request for information about future and completed Kāinga Ora projects using OSM	n/a	9/11/2021 extended
OI 21 436	Member of the public	<i>Phillipstown</i> Request for a list of all properties owned by Kāinga Ora in Phillipstown	n/a	10/11/2021
OI 21 439	Media	<i>Spending</i> Request for amount spent in the Bay of Plenty	n/a	11/11/2021
OI 21 440	Media	<i>CCTV</i> Request for information on CCTV footage	n/a	11/11/2021
OI 21 406	Member of the public	<i>Carbon neutrality</i> Request for information about carbon neutrality	n/a	12/11/2021 extended
OI 21 455	Member of the public	<i>IAF</i> Request for information relating to an unsuccessful IAF applicant	n/a	15/11/2021
OI 21 442	Office of Nicola Willis	<i>Demolition</i>	9/11/2021	16/11/2021

		Request for information regarding demolition in the Bay of Plenty		
OI 21 450	Member of the public	<i>Whakatane building costs</i> Request for the costs of new build homes in Whakatane	n/a	15/11/2021
OI 21 443	Member of the public	<i>Highbury Place</i> Request for information regarding a development	m/a	17/11/2021
OI 21 444	Member of the public FYI website	<i>Wellington airport</i> Request for documents relating to Wellington airport expansion	n/a	17/11/2021
OI 21 446	Media	<i>Damage</i> Request for the amount of damage done to Kāinga Ora properties	10/11/2021	17/11/2021
OI 21 447	Member of the public	<i>Australian owned businesses</i> Request for information on Australian businesses awarded Kāinga Ora projects	n/a	18/11/2021
OI 21 449	Member of the public	<i>EOI</i> Request for EOI documents for Te Awa	n/a	18/11/2021
OI 21 451	Media	<i>Damage</i> Request for information relating to tenant-damaged homes	11/11/2021	18/11/2021
OI 21 456	Media	<i>IAF</i> Request for information about an unsuccessful IAF applicant	15/11/2021	22/11/2021
OI 21 458	Office of Nicola Willis	<i>Fernccliffe Farms</i> Request for information about the proposed acquisition of Fernccliffe Farms greenfields development	16/11/2021	23/11/2021

5. Appendix One: Upcoming media events

6. Appendix Two: COVID-19 Weekly Activity Dashboard

Appendix One: Upcoming Media Events



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Request for Information Energy Sharing Trials

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1. Welcome

Thank-you for your interest in providing us with information on how we may implement and manage distributed energy solutions within the Kāinga Ora - Homes and Communities public housing portfolio.

Introduction to this Opportunity

What we are looking for

Kāinga Ora seeks information from potential partners to understand how we can share the benefits of decentralised energy resources between homes on multiple sites across New Zealand.

Energy sharing solutions are needed if Kāinga Ora is to implement solar Photovoltaic (PV) systems more widely on its homes in the future.

The problem Kāinga Ora is seeking to address is that:

- Kāinga Ora is unable to effectively share the benefit of the excess electricity from its rooftop solar PV systems between its customers.

The key drivers of the energy sharing problem are:

- Some Kāinga Ora properties are not suitable for solar energy systems, meaning solar systems will not be installed on these properties and these customers will buy all their electricity at market retail rates, whilst others benefit from sustainable energy solutions;
- Some Kāinga Ora properties are suitable for generating far more solar energy than is required within that individual property;
- Solar PV systems maximised for the roof space will produce excess energy during the day which is exported to the grid at a low feed-in tariff.

Success to Kāinga Ora would look like a mechanism to either:

- Share the excess energy between customers;
- Share the value of excess energy between customers; or
- Capture the value of the excess energy and share that between customers.

We are interested in information on solutions that maximise the benefit of the electricity generated by Kāinga Ora owned solar PV systems. This includes closing the value gap between the feed-in tariff and the retail price that will be paid by a neighbour to purchase the electricity.

We welcome information at a conceptual level, with a view that proposed solutions to our problem statement may be further refined at a later stage. Proposals may be suited to the Ara Ake “Multiple Traders at an ICP” trials.¹

We welcome collaborative responses between parties that may leverage new and or existing technologies in unique ways.

Why you should participate

¹ Refer to <https://www.araake.co.nz/> for more.

This is an opportunity for electricity industry innovators to develop and participate in energy sharing trials together with Kāinga Ora and other partners, including the Electricity Authority, the Ministry for Business, Innovation & Employment (MBIE) and Ara Ake.

The scale of the Kāinga Ora housing portfolio and its significant development and renewal programme gives us a unique opportunity to contribute to New Zealand’s transition to a low carbon economy.

We estimate that Kāinga Ora owns around 1 million square meters of roof space that is suitable for solar PV installation.² This equates to approximately 180MWp of solar generating capacity.

Kāinga Ora is committed to supporting innovation in this area, but needs to partner with others to achieve this.

Kāinga Ora Overview

Kāinga Ora is New Zealand’s largest residential landlord with over 67,000 homes, representing around four percent of New Zealand’s homes.

Kāinga Ora customers often struggle to pay their electricity bills, pay higher than average prices for electricity and are disproportionately likely to experience energy hardship.

We are at the early stages of a large redevelopment programme. Our construction programme accounts for around seven percent of New Zealand’s new residential builds and over the next 15 – 20 years, we will produce over 40,000 homes in master-planned urban development areas. Kāinga Ora will invest at least \$3b annually over the next 20 years on housing & infrastructure to support housing.

As an organisation, we are uniquely placed to deliver distributed energy solutions. We have the scale, the desire to relieve energy hardship, have significant roof space under our control that is physically connected to the end user, and have sustainability as a key strategic outcome.

² Not excluding roofs that are in poor condition – assuming roof replacement will be done when the solar PV is installed if a policy is adopted to install energy systems on as many homes as possible

Process and Information Assessment

This procurement process is less prescriptive than a traditional procurement process and provides for a high degree of interaction between Kāinga Ora and Respondents. It has been designed in a manner that enables Kāinga Ora to take an open, fair, and flexible approach to understanding what is achievable, whilst allowing an informed approach to developing our future business strategy.

The information received during the RFI process will assist Kāinga Ora to understand the ability of the market to provide decentralized energy solutions. This information will be assessed and used to help develop our future requirements.

As part of this process, Kāinga Ora reserves the right to discuss proposed solutions with Respondents. However, it is important to note that by providing a submission to this RFI the Respondent is in no way entering into a contractual relationship with Kāinga Ora, or that a contractual relationship will develop. Kāinga Ora will not be awarding any contracts off the back of this RFI process.

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Our Requirements

Context

Kāinga Ora are looking to establish a Solar Energy solution that relieves energy poverty for Kāinga Ora tenants and would make excess energy generated on one property available to the broader Kāinga Ora community. A more equitable energy solution necessitates some type of decentralised energy sharing.

Ideally, solutions would also allow for Kāinga Ora owned rental homes that are scattered throughout neighbourhoods and interspersed with private sector properties.

Proposals may leverage off planned solar systems installations as identified in Appendix B: Proposed Installations. However, proposals for other areas are also welcome. An indication of the amount of managed stock in each TLA (Territorial Local Authority) is available here <https://kaingaora.govt.nz/publications/housing-statistics/>

Goals and Objectives

The goals and objectives of this energy sharing solution are as follows:³

- To contribute to the provision of affordable energy and improved wellbeing for Kāinga Ora tenants through the use of renewable energy generation;
- To support the decarbonisation goals of Kāinga Ora through the integration of renewable energy resources into housing and electrical infrastructure; and
- To empower tangata whenua / Māori to harness clean energy in line with kaitiakitanga and tikanga Māori.

In addition, Kāinga Ora aims to use this opportunity to:

- Understand how decentralised energy assets and systems can be successfully deployed and managed in our portfolio;
- Understand how our customers and communities will engage with these systems;
- Understand how these assets can be deployed in a way that yields a wellbeing and economic benefit to our customers;
- Understand how the deployment of renewable energy assets can provide an economic benefit (or at least be cost neutral) to Kāinga Ora;
- Understand whether these benefits can be deployed to alleviate energy hardship among Kāinga Ora customers or other vulnerable communities;
- Understand whether decentralized energy assets can mitigate the need for Kāinga Ora to invest in more expensive electricity infrastructure upgrades as part of its large scale or construction programmes; and

³ Refer to Appendix A: Goals and Objectives for more information.

- Partner with the broader energy sector to leverage this as an opportunity to pilot alternative energy market solutions, providing an evidence base for a transition in the sector that reduces energy hardship for our customers and improves sector sustainability.

Solution requirements and constraints are outlined in Table 1 below.

Requirements	Constraints
<ul style="list-style-type: none"> • Reduce energy hardship for Kāinga Ora customers; • Potential to provide benefit that exceeds cost; • Potential to be commercially viable; • Scalable; and • Easy / simple for the Kāinga Ora customer to participate and access benefit. 	<ul style="list-style-type: none"> • Kāinga Ora customer has choice of electricity retailer (or, alternatively can opt out of any Kāinga Ora-retailer arrangement); • Kāinga Ora not required to directly bill customer for electricity; • Privacy of Kāinga Ora customers is protected; • Government information security requirements are to be met; • Off-market solutions are sought (that can be deployed without regulatory change, although Kāinga Ora could request that the EA relaxes some rules); and • Physical network constraints.

Table 1: Requirements and Constraints

What we are seeking

Kāinga Ora seeks information to explore solutions that enable our goals and objectives listed in Section 2.2.

These solutions are needed if Kāinga Ora is to install solar PV more widely on homes in the future.

We are seeking proposals from existing New Zealand electricity market participants. Respondents should be organisations or individuals who possess proven or credible energy sharing technology and experience.

Respondents are encouraged to present proposals together with others who they feel may be needed to enable a full solution. We recognise that these partnerships may not be fully formed in time to respond to this invitation. If this is the case, we welcome responses that acknowledge where partnerships are still to be established.

Proposals should be at a high-level or a conceptual level, with a view to further development and testing in the future. However, it is again important to note that this information will help feed into future business strategies, with a Request for Proposals seeking detailed solutions expected to follow in 2022.

We welcome proposals that could be tested through the Ara Ake “Multiple Traders at an ICP” trials.

Proposed solutions should not include embedded/ customer networks or microgrids, but could include:

- Retailers redistribute feed-in tariffs to Kāinga Ora customers without solar energy systems;
- Peer to peer trading networks;
- A supplier trades with the surplus electricity generated from Kāinga Ora solar energy systems;

- Or other arrangements that meet the requirements.

[the RFI doesn't give any 'ballpark' sense of what sorts of solutions might be in/out...eg innovative retail, microgrids, VPP etc, so is very open ended. This is okay as long as we think there are organisations in the market sophisticated enough to connect the dots for themselves on potential solutions...]

Submissions

The Proposals received, as part of the RFI process, will assist Kāinga Ora in developing business strategy to address the goals and objectives as outlined in Section 2.2. This Proposal is intended to be a mechanism by which Respondents can submit ideas without having to develop a fully worked solution.

Expectations of the response are as follows and should be submitted in the form of Appendix C: Request for Information Response:

- General Information regarding your company or organisation.
- A short document of a maximum of eight A4 pages. The core elements of the solution should be presented concisely (ideally within two pages);
- A maximum of two pages of supporting documentation that explains how the proposed solution addresses each of the Requirements and Constraints in Table 1;
- A maximum of two pages outlining your capability and experience to deliver an Energy Sharing solution (CVs and/or case studies of previous projects may be provided as attachments in addition to these two pages); and
- Finally, a maximum of four pages recommending an approach and next steps to trialling the proposed solution. If relevant, this should identify Electricity Code exemptions needed with a brief motivation for why the Electricity Authority should grant these exemptions (i.e. the benefits to consumers versus risks).

RFI Rules and Process

Timeline

The RFI will be released to the market via the Government Electronic Tendering Services (GETS). The RFI will be in the market from the 26th of October, 2021 until Friday the 28th of January, 2022.

Here is our timeline for this RFI process.

Process Step	Deadline
Release RFI to GETS	Tuesday 26 th of October, 2021
Deadline for respondent questions	Friday 21 st of January, 2022 at 1700
Deadline for proposals to be received	Friday 28 th of January, 2022 at 1700

Table 2: RFI Process Timeline

Dates and times are subject to change and Kāinga Ora reserves the right to amend or alter the timeline.

Later changes to the RFI or RFI process

If, after publishing the RFI, we need to change anything about the RFI, or RFI process, or want to provide Respondents with additional information we will let all Respondents know by placing a notice on the GETS at www.gets.govt.nz

If you download the RFI from GETS you will automatically be sent notifications of any changes through GETS by email.

Review and next steps

Kāinga Ora will form a review panel including representatives from the Electricity Authority, the MBIE Energy Resource Markets team, Ara Ake, as well as the Kāinga Ora Sustainability team. The purpose of this review is twofold. The first, will be to understand how Respondents are able to address our energy sharing problems; and the second, being to inform future business strategy.

Contact with Kāinga Ora during the RFI process

All communication with Kāinga Ora relating to this RFI, including questions asked of Kāinga Ora by Respondents prior to the response closing date, must be made via TenderLink.

Kāinga Ora reserves the right to use the information received (without reference to its source, unless specifically requested and approved) in the forming of future business strategies, any subsequent business cases, and in the requirements of any subsequent tendering process, the release of which will be strictly controlled.

Phone calls about this RFI will not be accepted unless first agreed via correspondence with the Kāinga Ora through TenderLink. This requirement is to ensure Kāinga Ora has a transparent audit trail.

If Kāinga Ora needs to change how communication is undertaken, that change will be communicated in the same way the RFI was originally advertised. Unless you are otherwise advised in writing, Kāinga Ora will not be bound by any statement made outside of TenderLink or GETS.

Obligation of a Respondent under this RFI

In the preparation of a response to this RFI, Respondents must not engage in collusive, misleading, deceptive or improper conduct that may be in breach of the Commerce Act 1986, the Fair Trading Act 1986 or any other Act or principle of law.

The Respondent must not make any advertisement or public statement relating to this RFI or the information in it without the express permission of Kāinga Ora. If permission is sought, this must be via TenderLink.

Respondents are asked not to canvass or influence any officer, employee, contractor or advisor of Kāinga Ora.

Respondents to inform themselves

Each Respondent is deemed to have undertaken the necessary investigation to enable it to make its own decision to submit information.

Each Respondent is deemed to have accepted and acknowledged that its decision to submit information is made solely on its own judgement and not upon any representation, statement, advertisement, or warranty made by Kāinga Ora or on behalf of Kāinga Ora, the Crown or any agency of the Crown.

Kāinga Ora will not be liable for any costs incurred by a Respondent in the preparation of its response to this RFI.

Confidentiality of information provided

All information provided in response to this RFI becomes the property of Kāinga Ora and is information held by Kāinga Ora for the purposes of the Official Information Act 1982.

Notwithstanding the above, the Respondent and Kāinga Ora will not use or disclose information that is confidential (once established that it is confidential information) of the other party, (whether commercially sensitive or not), to any person or organisation unless:

- a) the other party gives prior written approval to its use or disclosure, or
- b) if the use or disclosure of the information is required to be disclosed under the Official Information Act 1982 or other legislation. In that case, the approval or otherwise of the supplier under (a) does not include a power of veto.

When planning for, and undertaking future procurement processes, Kāinga Ora may use the information provided by the Respondent without attributing that information to the Respondent.

Kāinga Ora also reserves the right to verify any details provided in response to the RFI. Respondent should note that verification may involve having the details audited by Kāinga Ora appointed auditors.

RFI cancellation

This RFI may be cancelled or amended at any time by Kāinga Ora. At the time of cancellation or amendment Kāinga Ora will endeavour to notify all suppliers. Kāinga Ora reserves the right not to publish the reasons for the cancellation or amendment, but will publish a notice on GETS and Tenderlink.

How to submit your Response

The information you provide in response to this RFI must be provided by submitting a softcopy Word document or PDF version to TenderLink at <https://www.tenderlink.com/kaingaora/> before the closing date and time specified in this RFI.

The information provided may refer to attached marketing or promotional material, including financial information published within annual reports and financial statements.

Clarifications

Respondents may be requested by Kāinga Ora to provide clarification of parts of their response or to provide supplementary information. If this occurs, Kāinga Ora will request clarification via email through the procurement lead and will indicate the time period for the response.

How the information is to be used

Information received by Kāinga Ora in response to this RFI will not be evaluated (refer to section 3.4) and does not form a contract between Kāinga Ora and the provider of the information. Any selection of a supplier to Kāinga Ora will be done later through a formal and full procurement process that adheres to the Government Procurement Rules.

The information received will be considered by Kāinga Ora employees and its subcontractors involved in planning the future procurement as part of the business strategy and any subsequent business cases. The people considering the information may be assisted by various personnel (referred to as advisors), who represent relevant business areas of Kāinga Ora, as well as other experts that Kāinga Ora may consider appropriate to consult.

Please note that Kāinga Ora may also consider it necessary to share the information provided in response to this RFI with other agencies of government, especially where collaborative government procurement is an option.

For business reasons, Kāinga Ora may seek further information on the requirement described above via another RFI, as a clarification to this RFI, or directly with a supplier who responds to this RFI.

Appendix A: Goals and Objectives

Goals <i>What outcomes are we trying to achieve in the long term?</i>	Objective <i>What do we need to measure and achieve along the way to meet the goals?</i>	Kāinga Ora Criteria for Trial Selection and Design <i>Trials selected must align with the Goals and Objectives</i>
Goal 1: Renewable energy generation contributes to affordable energy and improved wellbeing	Objective 1 – reduce energy costs for target households	The solution benefits Kāinga Ora customers directly in terms of lower energy costs
	Objective 2 –Improved health and wellbeing outcomes for target households	The trial supports Kāinga Ora customers to benefit from the renewable energy systems on their homes The trial provides an opportunity to test decentralised renewable energy systems with either a specific client co-hort (eg elderly) or in a typical Kāinga Ora neighbourhood.
	Objective 3 – improve knowledge on the costs, benefits and design options for distributed energy solutions at a household level	The proposed solution is cost effective (no gold plated solutions) Trials are to be run on public housing stock only (KiwiBuild and Supported Housing is excluded) Implementation of trial solutions should be complete by June 2024
	Objective 4 - Provide reliable and secure energy source to target households	The proposed solution must provide a reliable and secure energy source to the Kāinga Ora customer
Goal 2: Decarbonisation is supported through integration of renewable energy resources into housing and electricity infrastructure	Objective 5 - improve knowledge on the costs, benefits, barriers and design options for large scale deployment of distributed energy solutions	The trial provides a proof of concept for applying decentralised renewable energy systems to typical Kāinga Ora housing stock (the suite of trials should ideally cover both new and existing stock, stand alone and complexes) The proposed trial solution must have the potential to lower lifetime carbon emissions for the property Solutions must be potentially scalable over Kāinga Ora housing stock Solutions trialled will be standardised and future proofed, as far as is possible (eg allowing for future expansion, addition of batteries and/or integration into virtual power plant network) The cost and implications of maintaining decentralised renewable energy systems must be included in feasibility and evaluation cases Trials must seek to mitigate theft, vandalism and customer health and safety risks Ethical and sustainable procurement is mandatory Reputable suppliers/ partners Trials may provide a stepping stone to provide energy across neighbourhoods
	Objective 6 – equity – enable a wide range of households and regions to access this fund	Trials should be spread across the country (so as not to concentrate spend in one geographical location)

		<p>Trials should provide fair opportunities for the renewable energy sector to participate</p> <p>Trials should seek opportunities to share benefits across all customers (seeking a solution for the equity issue – for example tenancies with shaded roofs cannot benefit from solar)</p>
<p>Goal 3: Empower tangata whenua/Māori to harness clean energy in line with kaitiakitanga and tikanga Māori</p>	<p>Objective 7 – positive impacts for target Māori households, informed by kaupapa Māori</p>	<p>Kāinga Ora trials contribute to positive impacts for Māori and meet Māori aspirations where-ever possible.</p>

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Appendix B: Proposed Installations

The table below gives an overview of the trial pipeline, which is still under development (more sites are likely to be added). The items shaded green are already fully committed or in detailed design and implementation phase. The items shaded grey are not yet fully scoped or committed.

Project Location	Number of Units	Building Type	Timing	Assumed PV Capacity	Possible Export to grid (indicative only)
Porirua and Lower Hutt (diverse locations)	100	Standalone homes	Early 2022	~4kWp on each home	272MWh to 390MWh per annum
Whangarei	15	1 apartment block	Early 2022	21kWp	12 MWh per annum
Christchurch	20	1 apartment block	July 2022	34kWp	18MWh per annum
Nelson	Up to 93 ⁴	Single story multi-units 5 potential sites	2022	3-5kWp on each home	~ 280MWh per annum
Napier	8 + 18	1 apartment block + stand-alone homes	2023	16kWp for apartment 66kWp for houses	~11 MWh per annum for apartment Not available for houses
Glendowie Auckland	30 8 2	5 Passivhaus apartment blocks 1 standard apartment block 2 standalone houses	2024	106kWp 14.5kWp Not available for houses	106 MWh per annum 11 MWh per annum Not available for houses
Mt Albert Auckland	32	2 apartment blocks	2024	88kWp	80MWh per annum
Pukekohe Auckland	25	1 apartment block	2024	39.6kWp	16MWh per annum
Avondale Auckland	166	6 apartment blocks	2024	155.5kWp	62MWh per annum

⁴ Note, this trial consists of a number of sites which are still being scoped. Go-no go decisions will be made on a site by site basis, which could reduce the number of homes in this trial.

Wellington City	228	8 Apartment blocks 3 townhouses	2024	307kWp	111MWh per annum
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DRAFT
PROACTIVELY RELEASED