

Public and Māori Housing Renewable Energy Fund 2020

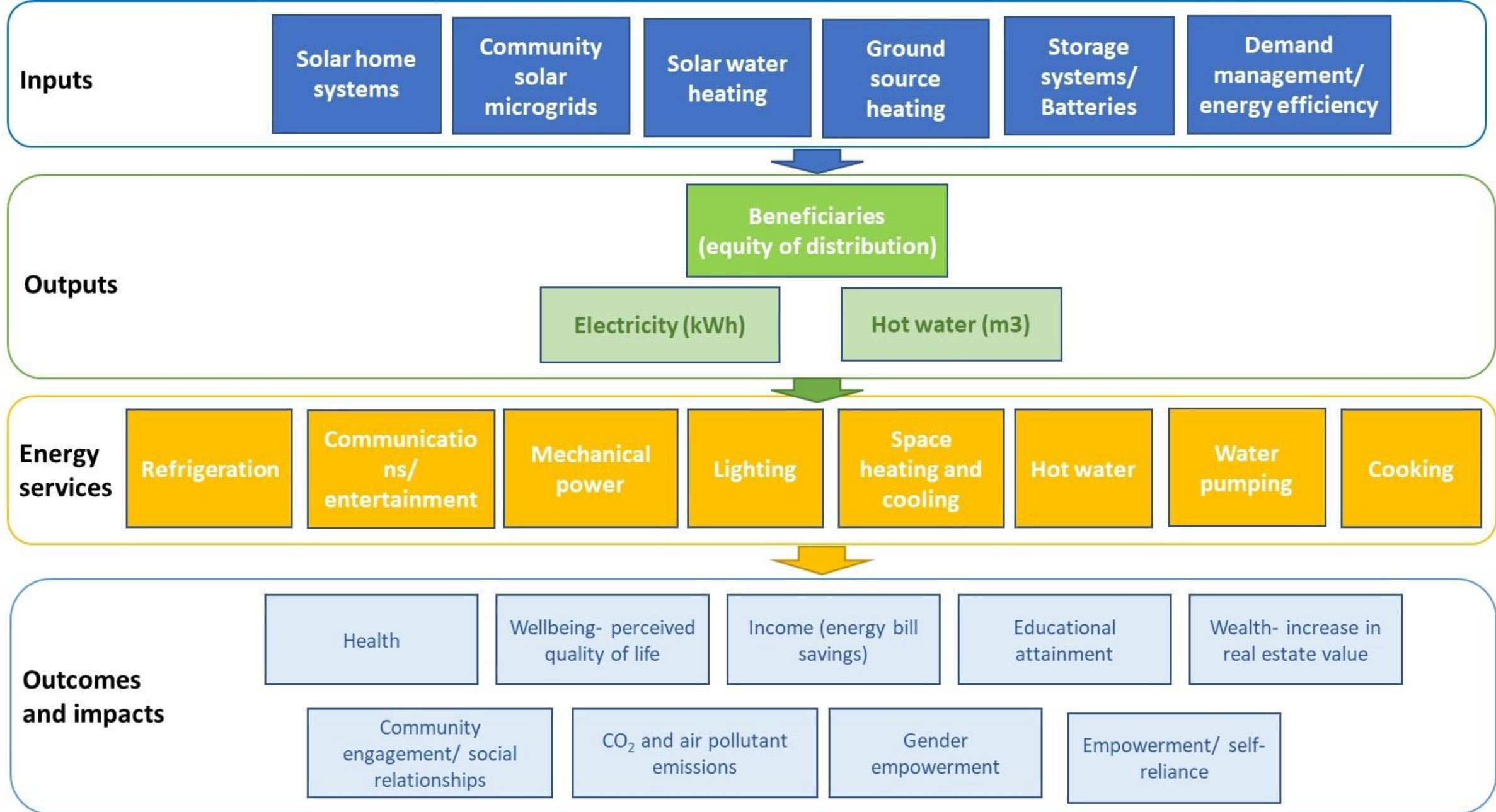


Stated goals of intervention

1. Contribute to affordable energy and improved wellbeing.
2. Support decarbonisation.
3. Empower tangata whenua/Māori to harness clean energy in line with kaitiakitanga and rangatiratanga and tikanga Māori.

RENEWABLE ENERGY STRATEGY







DATA ANALYSIS

**Analysis and reporting
outputs 2026**



Clustered nested design

Nested by

- Rohe/Region
- Funding recipients (Māori housing)
- Household

Clustered by

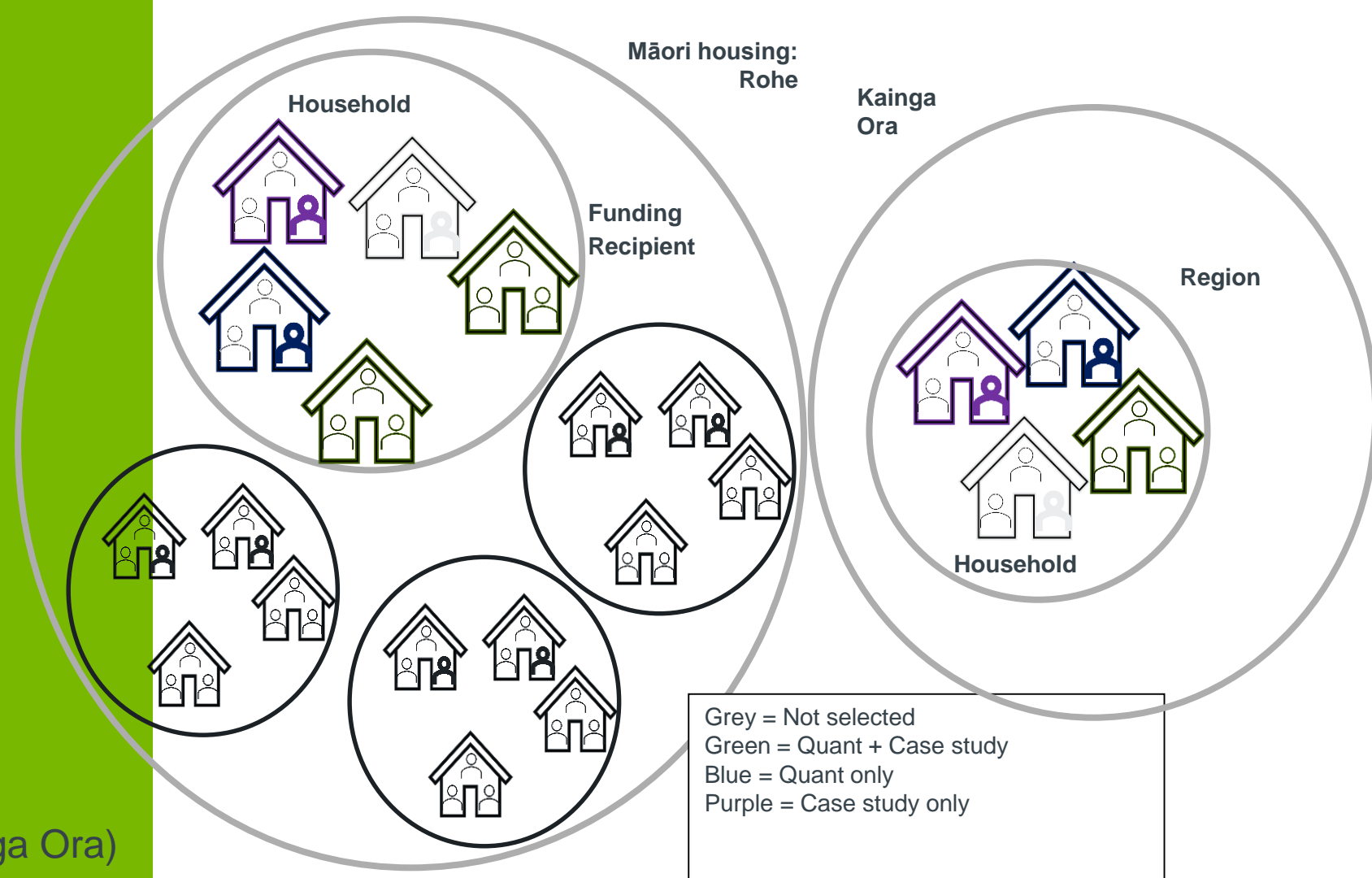
- Energy system
- Household type

Case studies (10)

- At least 5 Māori housing stream
 - Funding recipients
 - Selected households
- Up to 5 Kainga Ora stream
 - Kainga Ora housing clusters

Household Data

- Energy use (100 MPH + 1000 Kainga Ora)
- House audit (100 x 2)
- Wellbeing survey (100 x 2)
- Environment (100 x 2)
- Case study (5 x 2)



What does good like for your community?



- Sustainability of funding
- Energy Sovereignty
- Affordable energy for communities
- Infrastructure owners and operated by our communities instead of big business (includes water and energy)
- Better standard of living - minimise fire hazards from candle use
- Energy autonomy, energy options.
- Opportunities for social procurement at scale
- National Māori energy forum
- Energy literacy
- An end to energy hardship, and equitable living conditions for everyone.

Process KEQ's



@Nina Kereama Stevenson

How the objectives of the pilot align of iwi and hapū aspirations, goals or initiatives?

What were the benefits for Māori communities involved in this pilot? What have been some of the successes?

What were have been some of the outcomes for whānau receiving the innovative energy installations?

What have been some of the challenges in applying for the project?

What has been some of the benefits of receiving the funding?

What would you have done differently with the funding?

Case studies – interviews, focus groups, hui with recipients of the fund

Process KEQs:

- What were the challenges faced when implementing projects?
- How well did the funding allocation work based on the scheme criteria for the different aspects of the trial?
- What were the successes when implementing the projects?
- What could be done differently?
- Case studies – interviews, focus groups, hui with recipients of the fund (for those who applied for funds)



Outcome KEQs



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- Has there been a reduction in energy costs for targeted households?
- Has there been an improvement in health and wellbeing outcomes for targeted households?
- How do temperatures and humidity, within the house change because of solar energy?
- How do comfort levels, self-assessed physical health, self-assessed mental health and wellbeing changes relate to changes in temperature and humidity within the house following installation of the solar energy systems?

Outcome KEQ's

- Has there been an improvement in knowledge on the costs, benefits, and design options for larger-scale deployment of distributed energy solutions?
- What has been the impact on equity? Have a wide range of households and regions had access to this fund?
- What have been the impacts for target Māori households?
- What does the CBA tell us about the implementation of the renewable energy systems?



Quantitative

- Motu have been subcontracted to conduct an Energy Audit survey to understand the different types and amounts of energy in households used in the last 12 months.
- The data collection method offers three levels of participation :
- Level 1 Energy Audit
- Level 2 Building Assessment = L1
- Level 3 Energy Use and Monitoring of equipment = L1 + L2

Data Collection

Level 1: Energy audit survey. A survey to understand all the different types and amounts of energy your household used in the past 12 months (conducted twice; once before and once 12 months after the renewable energy scheme is installed)

Permission to access to smart meter data (or electricity bills if no smart meter)

*Household experience survey also conducted twice (before and after). A survey to understand how well your house meets your needs and preferences. And how your house impacts on your overall sense of wellbeing. It will include some *qualitative* assessments of temperature and humidity.

Quantitative Data Collection

Level 2: All of level 1 data collection is included, as well as the addition of :

- Monitoring temperature and humidity in the living area
- Undertaking a building condition assessment
- Volumetric measurements of the home

Level 3: All of level 1 and level 2 data collection is included, as well as the addition of any of the following:

- Energy use monitoring of electric appliances

