



PAPAIOEA
PALMERSTON
NORTH
CITY

PALMERSTON NORTH CITY COUNCIL

MINUTES ATTACHMENTS ENVIRONMENTAL SUSTAINABILITY COMMITTEE

9AM, WEDNESDAY 30 MARCH 2022
AUDIO-VISUAL MEETING

ENVIRONMENTAL SUSTAINABILITY COMMITTEE MEETING

30 March 2022

5 Presentation - Massey University

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|----|---------------------------------------------------|---|
| 1. | Presentation - Massey University - Climate Action | 4 |
|----|---------------------------------------------------|---|

6 Presentation - New Zealand Green Building Council (NZGBC)

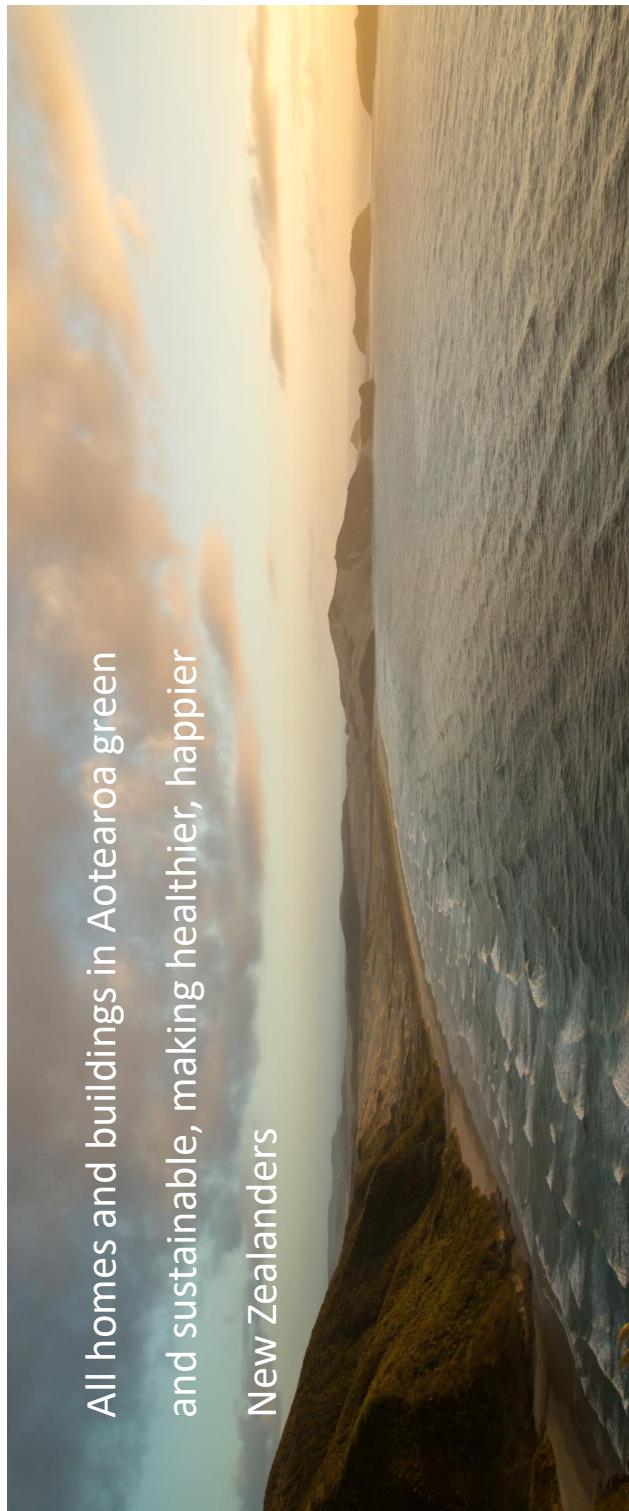
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| 1. | Presentation - NZ Green Building Council - Lower carbon buildings and homes PNCC | 5 |
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Placeholder for Attachment 1

ITEM 5/22 Presentation - Massey University

Presentation - Massey University - Climate Action

OUR VISION



E info@nzgbc.org.nz W nzgbc.org.nz

<p>Architects, Designers, Engineers, and other advisors</p> <p>Property Developers, Owners, Occupiers and Investors</p> <p>Product Manufacturers and Distributors</p> <p>Local Authorities, Higher Education Institutions, Research Institutes and</p> <p>Education, Research Institutes, Higher</p> <p>Property Professionals, Tenants and Related Property Interests</p> <p>Contractors, Builders and other Construction Professionals</p>



Agenda

- 1) Context
- 2) Buildings & communities
- 3) Homes
- 4) Steps councils can take



Action you can take

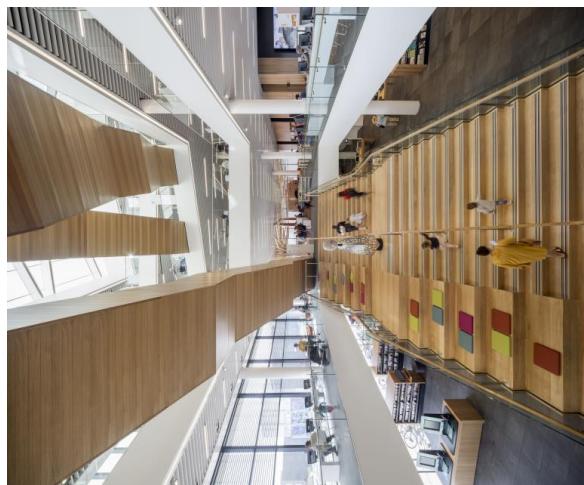
If building a new building build green. As are many councils - aligns with LGFA requirements for green finance



If fitting out floors or a whole building reduce impacts by specifying Green Star Interiors to the design team.

Person responsible at your council –
Director overseeing your assets





ON AVERAGE, GREEN STAR COMMUNITY CENTRES,
LIBRARIES AND CIVIC BUILDINGS:

- ⚡ ... use **50%** less energy than buildings built to minimum standards
- ☁️ ... generate **54%** fewer GHG emissions than buildings built to minimum standards
- 💡 ... have an average energy intensity **86 kWh** per metre squared per annum, compared to **189 kWh** per square metre per annum if they had been built to standard practice
- 💰 ... will save around **\$100,000** per year in energy bills¹⁹

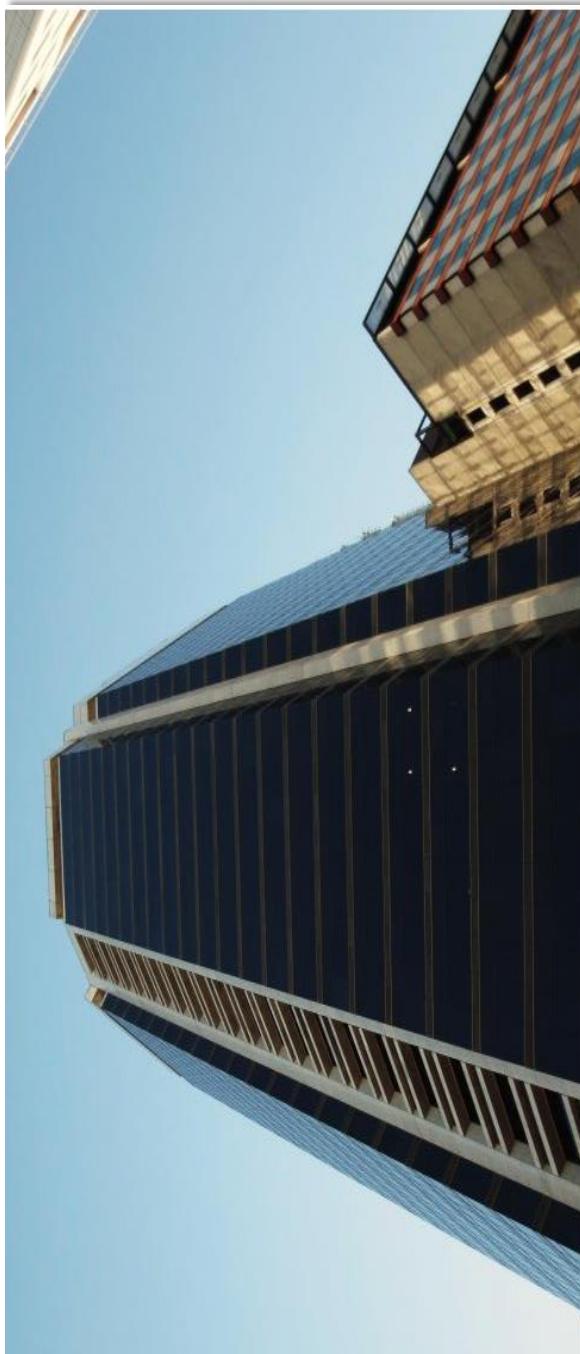
Average % reduction GHG	
4 star	47%
5 star	57%
6 star	70%
Total	56%

E info@nzbgc.org.nz W nzbgc.org.nz

Tūranga, Christchurch's library,
designed to emits 72% fewer
carbon emissions than a
comparable building.



Auckland Council HQ: 135 Albert Street, Auckland



The goal was a five star Green Star Interiors rating





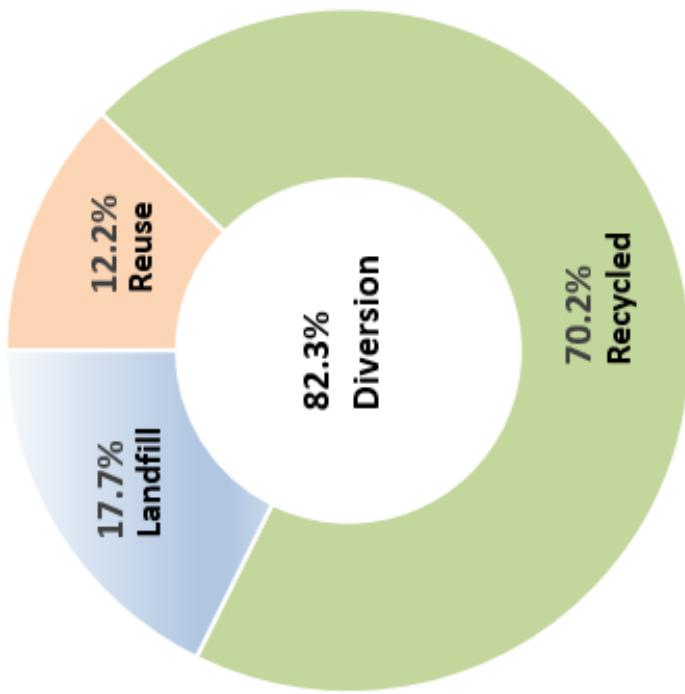
Recycling of Ceiling Tiles

The plant 80:40 ratio

- Our initial recyclable recovery rate was 60:40, e.g. **60% recycling, 40% landfill.**
- Close work with Green Gorilla and Envirofert to improve the outcome
- Envirofert purchased new plant capable of a higher recyclable yield **to 80%**



Waste stream percentage split



Proven
with evidence
and verified



Clients are mandating certificates on new and existing buildings



- Carbon neutral programme aims to make government agencies carbon neutral by 2025

140 government agencies now required to



- procure a 4 star NABERSNZ certificate on new leases for larger offices
- achieve 5 Green star on new buildings they build
 - +\$25 m from April 2022
 - +\$9 m from April 2023





TE KAUNIHERA HANGANGA TAUTAJAO

Action you can take

Assess your office against NABERSNZ – As Kapiti, New Plymouth, Christchurch, Wellington, Rotorua, Hutt City Council and other councils do.

Mandated by central Government

Assess community assets with
Green Star Performance – As Auckland Council is doing.

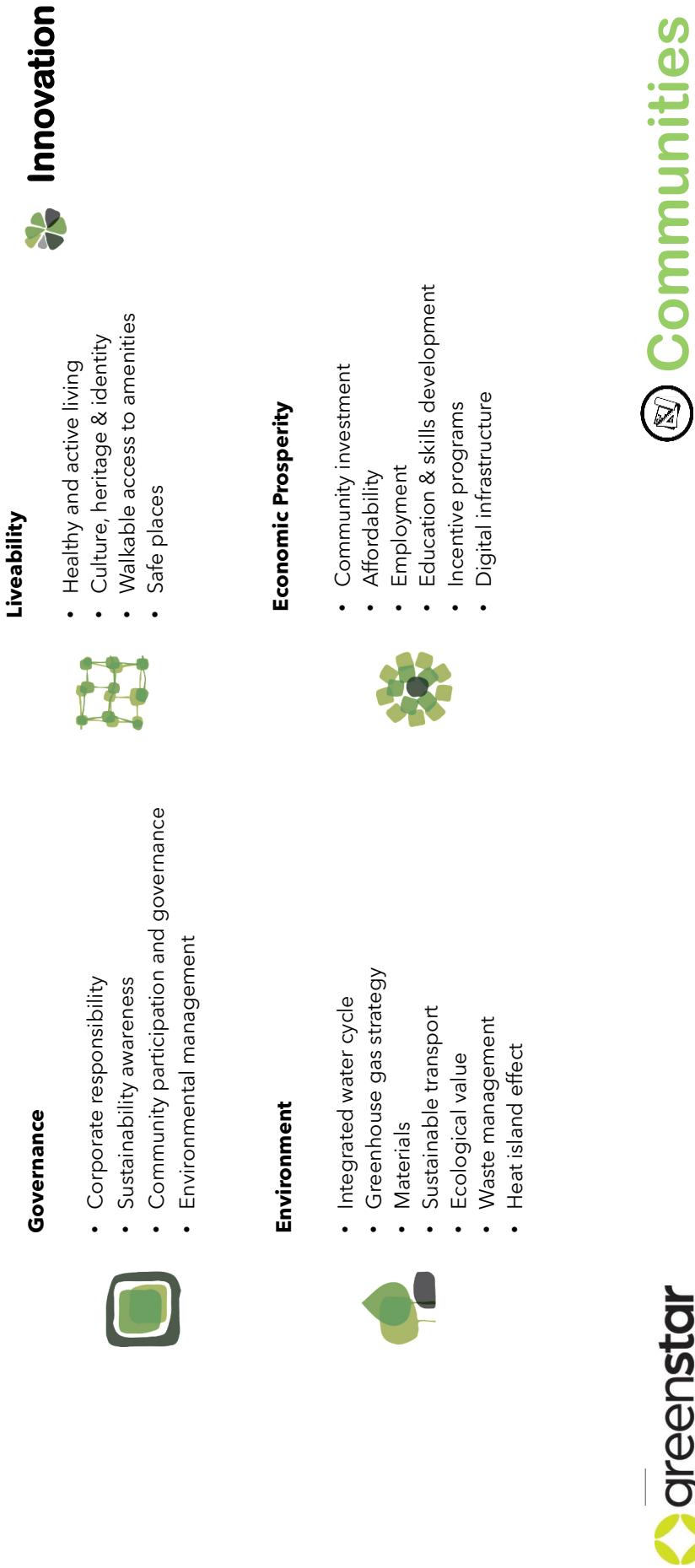
Person responsible at your council – Asset managers or facilities managers



Green Star Communities

- Transformative, flexible, relevant
- Establishes a common language for sustainable developments
- Promotes integrated thinking on aspects beyond environment
- Raises awareness about sustainable places
- Recognises sustainability leadership

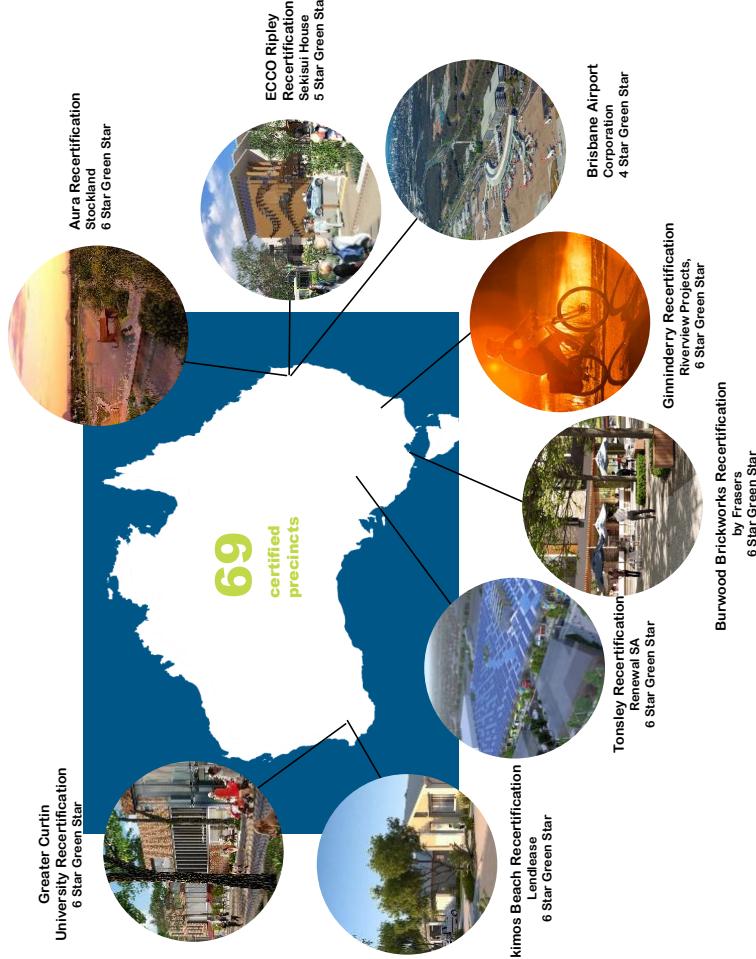




Strong uptake in Australia

The diversity also reflected in project size:

- 23% projects are less than 10 ha
- 29% are between 10 and 100 ha
- 38% are between 100 and 1000 ha
- 10% are over 1000 ha



Sector	Total
Airport	2
Commercial	3
Mixed Use	15
Other	1
Residential	32
University	3

Takapuna



Henderson



Five Green Star Communities use in New Zealand

5 other developments are
engaging with Green Star
Communities

Governance -exceptional performance in community resilience

- community engagement & corporate responsibility
- Mana whenua engagement -charter, mana whenua governance forum, Public consultation and surveys.
- Community users guide- Welcome packs

Credits awarded to these projects

Livability - encouraging healthy lifestyles

- recreational facilities, healthy places , walkable access to amenities
- wayfinding exercise, walking and cycling paths
- all dwellings to be built to a minimum of 6 Homestar rating

Economic Prosperity - boosting economic growth of the community

- community investment fostering employment and economic resilience
- community infrastructure investment- \$33k - \$46k per dwelling -
- uplifting education and skill development and investing in digital infrastructure.



Action you can take

If your council is involved in a development of +200 homes or 4 or more large buildings certify to Green Star Communities.

Panuku Development Eke and a range of other councils are doing this.

Person responsible at your council – Head of planning

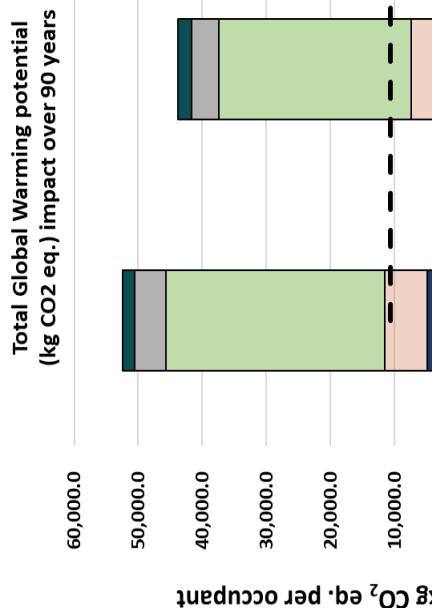


Up until now I have been talking about your procurement or planning – Steps you take when you commission a new building or fit out or when a large scale development is taking place (Green Star Communities)

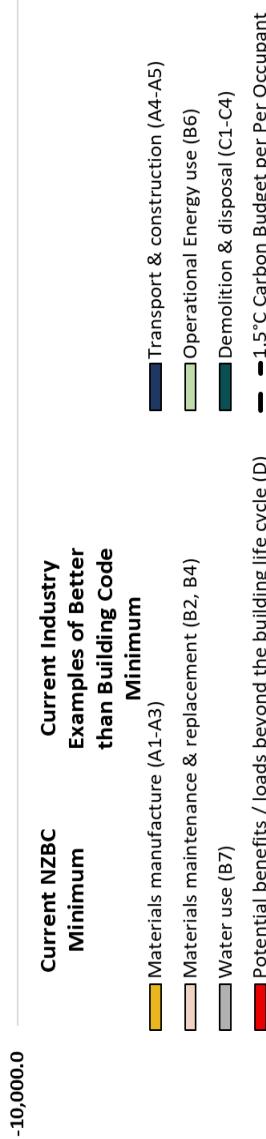
I am now going to talk about steps you can take to encourage private developers to build healthier, more sustainable homes and buildings. These are the steps to transform the mass market and drive BIG change.



TE KAUNIHERA HANGANGA TAUTAJAO



The homes we build
currently generate
about 5x too much
carbon



Source: Chandrakumar et al
Reference: BRANZ LCA Quick tool 3.4.2
<https://www.stuff.co.nz/life-style/homes/sustainable-living/1187991/41/new-houses-emitting-five-times-too-much-carbon-study#:~:text=A%20typical%20new%20Kiwihouse,meet%20the%20Paris%20climate%20accord.>

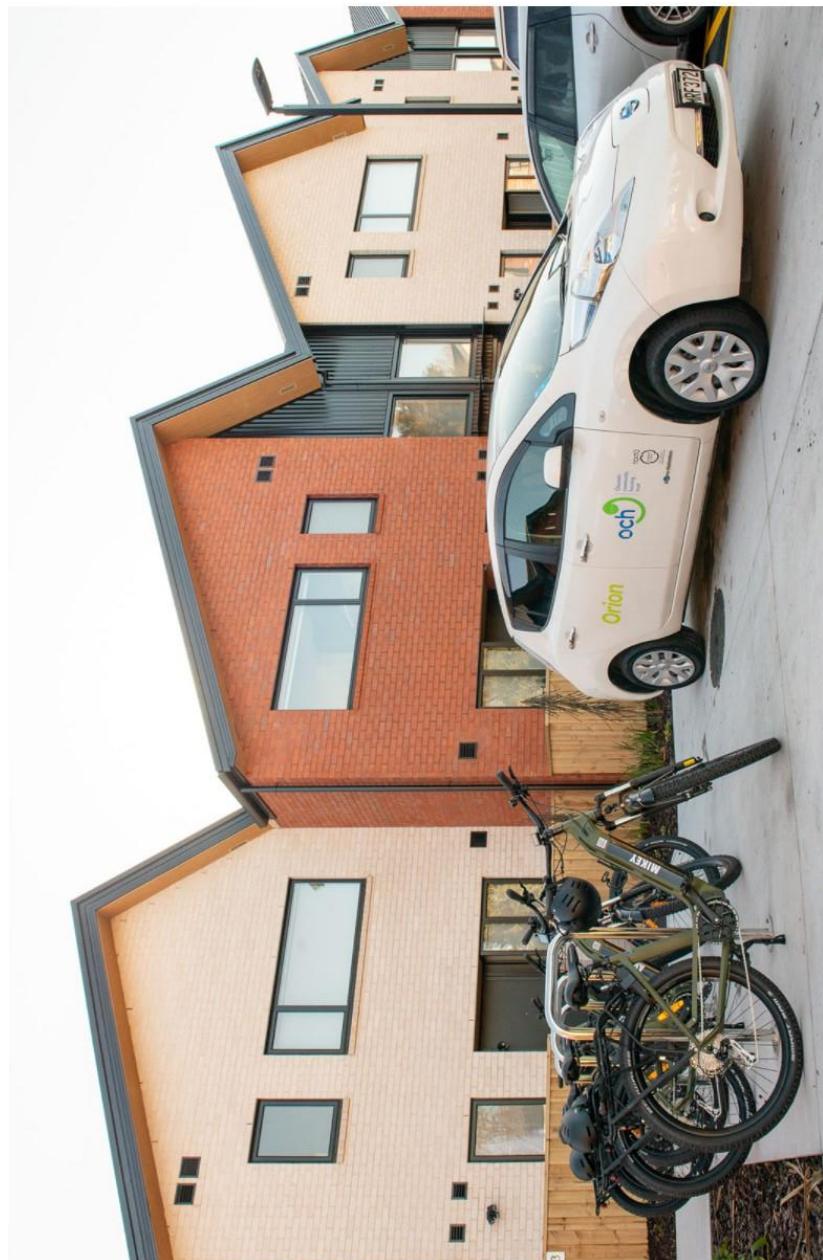
Homestar created for new houses or fit outs

- Each family expected to save \$450- \$500 / year & benefit from better warmth and air quality
- Each new house usually creates 5 tonnes construction waste. Homestar reduces that to 2 tonnes
- Costs - 2% over building code. Reality 1%
- Homestar v5 now available. Includes an embodied carbon calculation
- 5,000 registrations in the last six months



Better homes, proven. | Rāinga paki te atu, tūturu.





- 90 Homes built to 7 Homestar
- Warmer and healthier than building code
- Great transport options
- Lower carbon
- Committed to Homestar on future projects

Build to rent

Tens of thousands of homes

- Kiwi Property
- New Ground Capital
- Simplicity Living
- 26 Aroha



NewGroundCapital

Capital Ideas For New Zealand



% Simplicity





"Kāinga Ora values the partnership we have with the New Zealand Green Building Council in delivering homes that go beyond many current building code requirements to help improve our customers' quality of life.

Building all of our new homes to at least the 6 Homestar standard is an important step towards improving the health, social and financial benefits for our customers, as well as being an important tool to help us meet our carbon emissions and waste-reduction aspirations.

The support we receive from the NZGBC and the relationship we have formed has helped us continue to make strides in this area.."

Andrew McKenzie
Chief Executive
Kainga Ora





Action you can take

You can incentivize green standards by including green ratings on LIMs.

Hutt City Council are including whether a home has Homestar or HomeFit on the LIM.



Procurement

When building new or fitting out - You could specify green certification – This is for your asset managers and planners in your team.

Regulatory options to encourage the market to change – Actions for your regulatory team

- 1) Reduced cost (fees) for consenting buildings that are certified as lower carbon
- 2) Enable greater density for homes built to Homestar
- 3) Water provider - The water provider, in some cases, council could reduce the Infrastructure Growth Charge for homes or buildings that are water efficient
- 4) Provide greater consenting support to applicants undertaking projects with a 6 Homestar rating or higher.

Financial policy

- 5) Reduced development contributions for sustainable buildings or homes – this is what Wellington City Council has in their Development Contributions Policy.



Education

6) When a LIM report is requested, include information on the Homestar rating (this is what Hutt City Council is doing).

7) Include case studies of Homestar or Green Star buildings on your website to raise awareness

The policy options outlined here are within the remit of councils, and the benefits to New Zealanders are significant.

They help achieve Council goals of

- Saving tax payer money
- Healthier communities
- Resilience to climate change
- Lowering carbon in your operations and community

