



# Energy efficiency and wellbeing benefits – a New Zealand approach

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# New Zealand's policy shift

- Climate change focus:
  - Zero Carbon Bill
  - 100% renewable electricity by 2035
  - Climate Change Commission in development
  - No further gas and oil exploration permits
- Social development focus
  - “Just Transition” working group



# Multiple Benefits thinking is growing

- NZ Ministry for energy has commissioned several multiple benefits studies
- EECA's new strategy focuses on impact
- Central government has launched the first “Wellbeing Budget” = new way of measuring the impact of policies and programmes, beyond the traditional measure of GDP.



# NZ Living Standards Framework = systemic change in policy design

“a way of progressively pushing cost-benefit analysis beyond more easily measured, but narrow, financial dimensions”

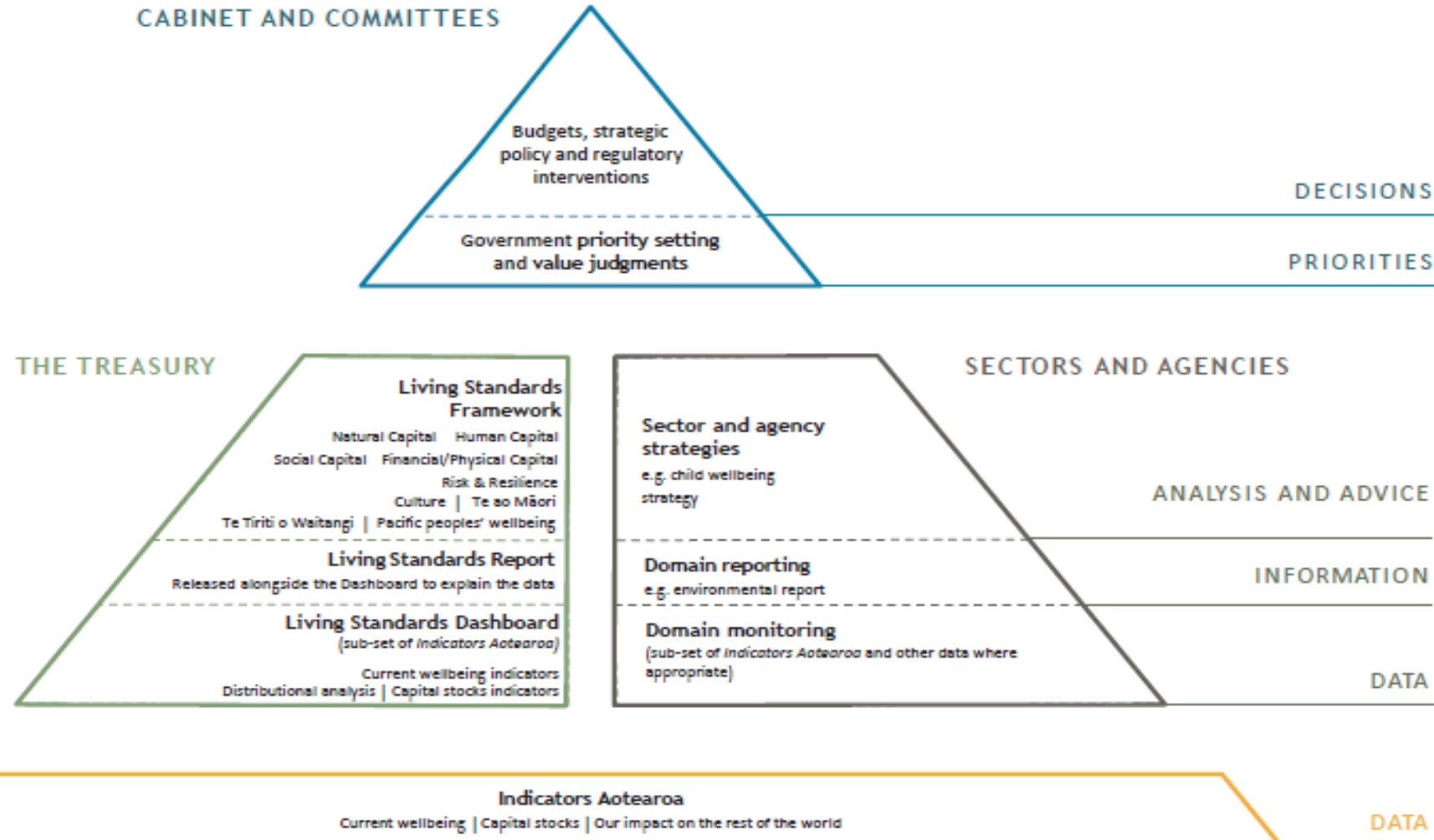


# Four principles being applied in Ministry performance reporting

1. Long term/intergenerational
2. Collectively working towards shared outcomes
3. Multi-dimensional
4. Recognising and building on existing tools



# Shifts public sector decision-making



# All new policy & program proposals must outline the wellbeing effects



Agency to complete					
Provide a brief overview of the initiative's key impacts – both positive and negative. Use a new row for each impact.					
Impact Description	Affected Group	Timeframe Realised	Domain Impacted	Supporting Evidence	Magnitude of impact
Identify the expected impact.	Indicate which group(s) or places will be impacted. Quantify the size of impacts where possible, taking into account population size if applicable.	Indicate if the impact will be realised in the short (<5 years), med (5-10 years), or long term (>10 years). Using the icons, indicate the wellbeing domain(s) that will be most impacted.	Using the icons, indicate the wellbeing domain(s) that will be most impacted.	Provide a summary of up to 250 words outlining the initiative's likely efficacy in achieving the stated impacts. Provide links to up to 3 of pieces evidence consulted that demonstrates this efficacy.	Indicate the magnitude and size of the impact, and where possible, monetise present value gain or (loss) <u>PV\$m</u> .

## PROBLEM/ OPPORTUNITY

The existing baseline funding for Warmer Kiwi Homes, which is available until 30 June 2022, will not adequately address the problem of housing that is poorly insulated and lacks adequate heating occupied by low income owners—approximately 160,000 houses occupied by low-income owners have inadequate insulation and 120,000 houses do not have an affordable and effective heater. There is an opportunity to improve the Warmer Kiwi Homes programme to reach a greater proportion of households without adequate insulation and heating.

## INPUTS

### What we invest

Additional funding of \$[REDACTED] million over four years above existing programme funding (of \$130 million)

(of which \$[REDACTED] million for subsidies, the remainder covering operational expenditure)

## ACTIVITIES

### What we do to produce outputs

- Subsidise 90% of an insulation retrofit and ground vapour barriers
- Subsidise 90% of the costs of installing an affordable, effective heater up to a maximum of [REDACTED] (GST excl.) per grant
- Insulation and heating grants will be supplemented, wherever possible, by third-party funding to make retrofits free or very low cost for homeowners
- Contract with approved energy service providers to deliver the measures into the market
- Conduct contract management, quality and audit manual compliance, and independent auditing to assure the quality of interventions
- Communications and marketing strategies to overcome information barriers and ensure the programme has good national coverage
- Provide an additional two years of funding (2022/23) compared to the current four year programme

## OUTPUTS

### What we deliver for our outcomes

- Delivery to low-income home owners of:
- 90,000 insulation and heating retrofits and ground moisture vapour barriers

## OUTCOMES

### Direct/Short term (1-5 years)

- Improvements in:
- Thermal performance of the home for targeted households:
    - indoor temperature
    - reduced damp and mould
    - air quality
    - useable living space
  - Health outcomes:
    - Reduced mortality
    - Reduced hospitalisation
    - Fewer GP visits
    - Lower pharmaceutical costs
  - Comfort and wellbeing
    - Improved mental health status
  - Safety and reduced injuries—safer heating options
  - Reduced energy bills of treated households.

### Medium term (5-10 years)

- Avoided public health costs
- Improved attendance and learning at school
- Improved attendance and productivity at work
- Increased disposable income
- Improved energy affordability
- Reduced energy demand and reduced peak electricity demand

## IMPACTS/ LONG TERM OUTCOMES (10+ years)

Significant improvements in the thermal performance of New Zealand's housing stock

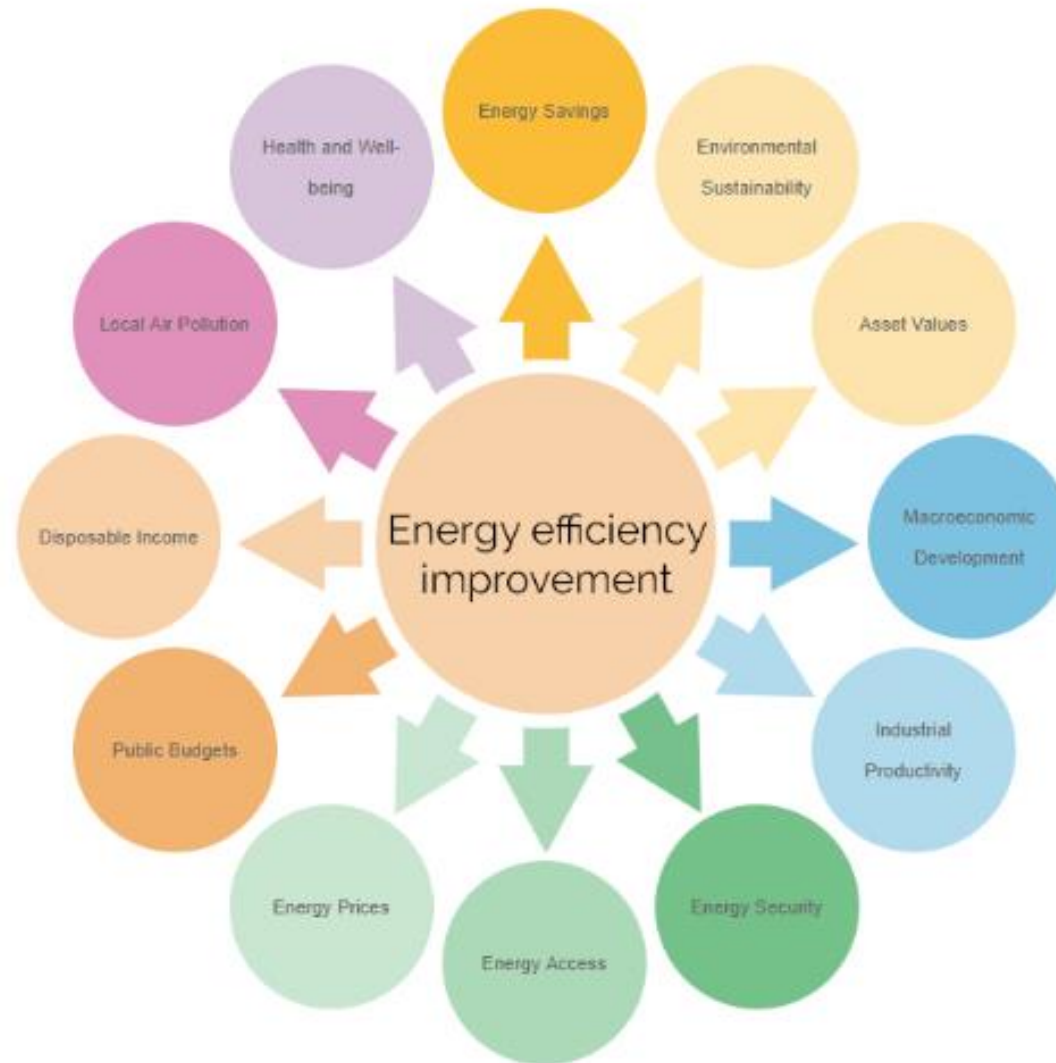
Improved productivity of NZ economy

Reductions in energy demand

Reductions in carbon emissions (from non-electric heating and electricity savings)



# MBEE provides a head start in EE



# EECA's multiple benefits approach

- Pay more attention to impact assessment
  - An Evaluation Plan for EECA!
  - Consider the potential benefits of each programme from the planning & design stages
- Be willing to take an innovative approach to measurement
  - Engage a broader range of govt stakeholders; external experts
  - Adapt existing tools to capture hard-to-measure impacts
- Support development of the evidence base by sharing learning widely



# Thank you

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