Energy performance of New Zealand’s housing stock

Christian Hoerning, EECA
Contribution to New Zealand’s total greenhouse gas emissions

- New Zealand: 3%
- Germany: 23%
Contribution to New Zealand’s total greenhouse gas emissions

= 3 x
Residential energy use

- 70% electricity (> 80% renewable)
- 14% renewables (mostly firewood)
- ca. 70% renewable overall
Energy hardship

“Just under one-third of households experienced one or more energy hardship indicators.”

Source: Stats NZ (2017)
Household electricity peak demand

Source: Concept Consulting Group Ltd (2017)
Potential realisable economic benefits estimated at $300 million in net terms over 10 years.
State of our homes

- ½ of homes have suboptimal ceiling and/or underfloor insulation
- ½ of homes have no wall insulation
- >80% of homes single-glazed
- ½ of households don’t heat their bedrooms
- 15% of households use unflued gas heaters
- 1/5 rentals have no fixed heating
- ½ of bathrooms and kitchens have no mechanical extract ventilation to outside
- ½ of homes have visible mould
Evaluation of Warm Up New Zealand: Heat Smart

- benefit-cost ratio 3.9 to 1
- 99% of benefits health related

Source: Motu (2012)
3 Essentials for a healthy home.
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www.energywise.govt.nz

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New Zealand Government
3 Essentials for a healthy home.

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New Zealand Government
Rental home regulation

- insulation
- smoke alarms
Rental home regulation

Healthy Homes Guarantee Act 2017

Public Act 2017 No 46
Date of assent 4 December 2017
Commencement see section 2

- heating
- insulation
- ventilation
- moisture ingress
- draught stopping
- drainage