

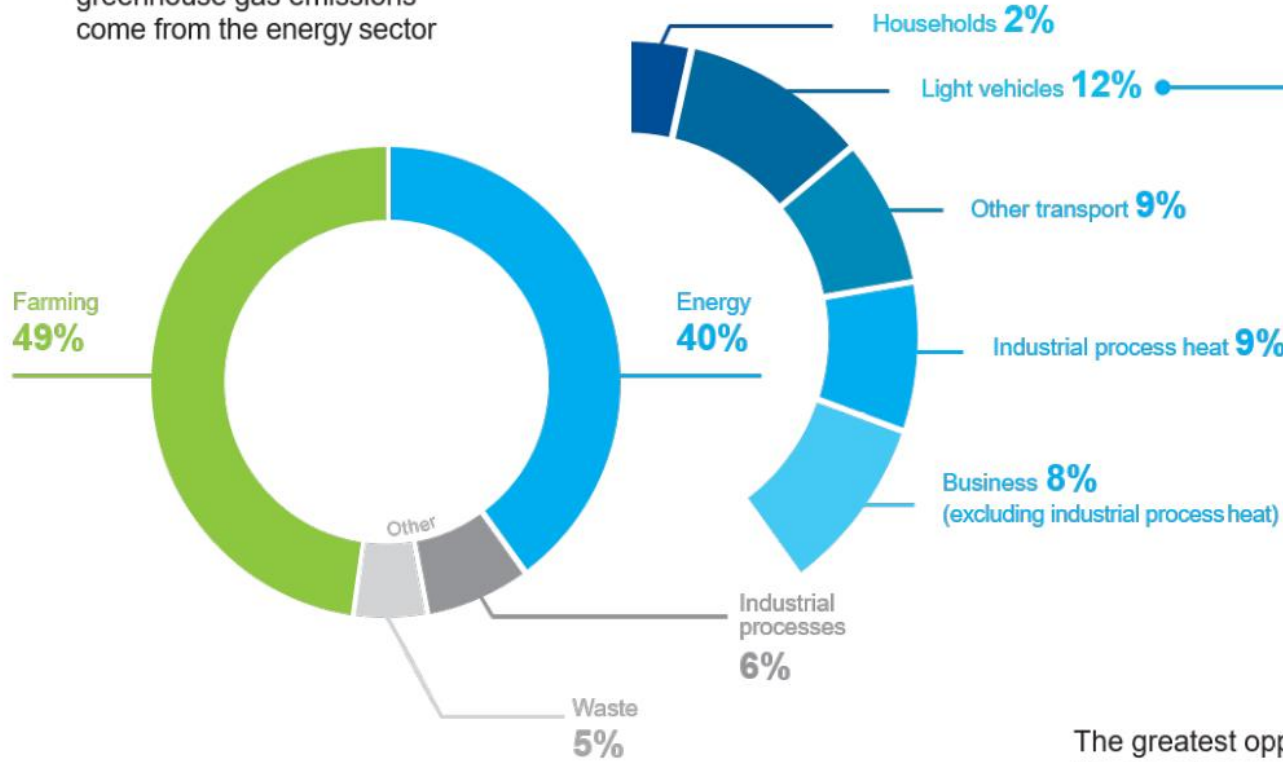
2019 Wind Energy Conference

Presentation by: Andrew Caseley, Chief Executive
Energy Efficiency and Conservation Authority (EECA)



New Zealand's greenhouse gas emissions

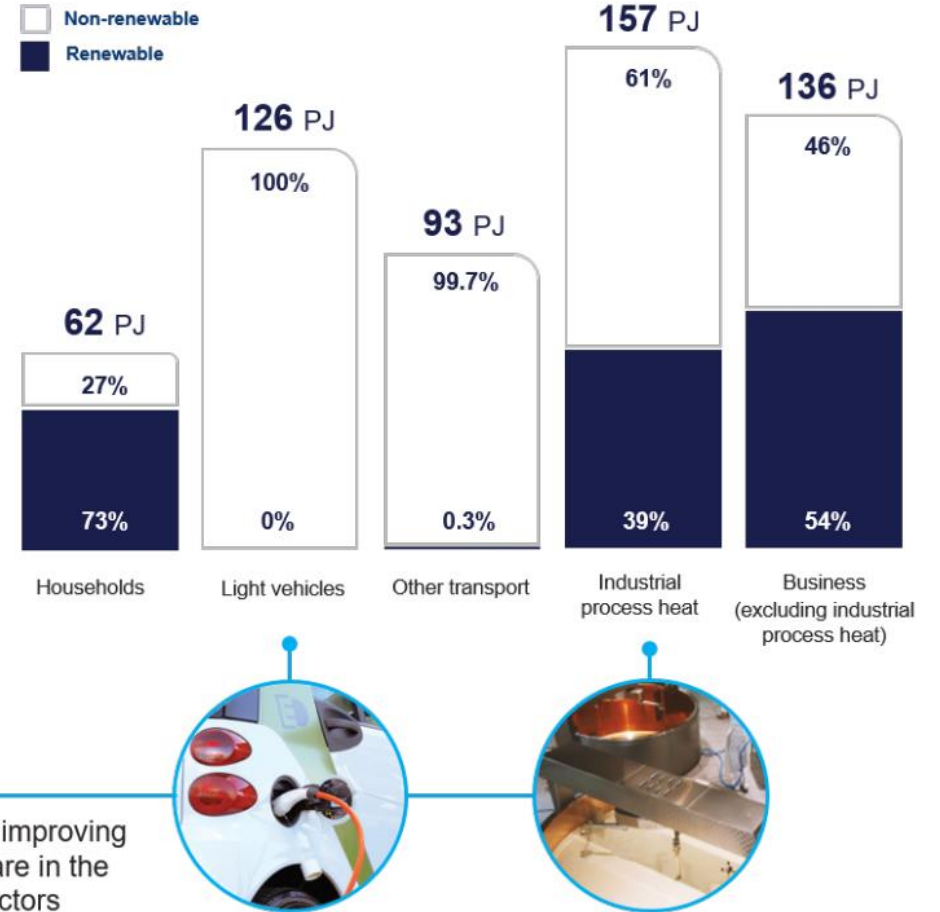
40% of New Zealand's greenhouse gas emissions come from the energy sector



Source: Greenhouse Gas Inventory 1990-2016, MIE (2018) and the Energy End Use Database 2016, EECA (2018)

Energy use in New Zealand

Source: Energy End Use Database 2016, EECA (2018)



EECA's Strategic Focus Areas

**Low Carbon
Productive
Business**

**Efficient and
Low Emissions
Transport**

**Energy
Efficient
Homes**

**Government
Leadership**

**Engage Hearts
and Minds**

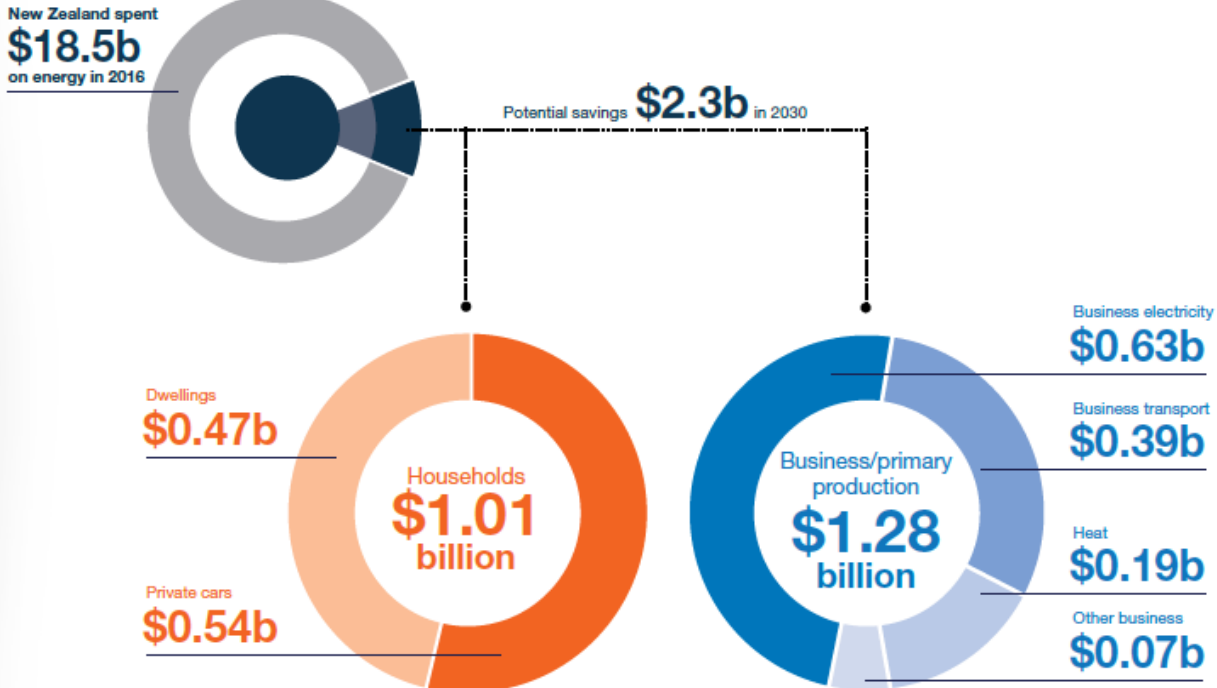


Efficiency First

- Energy Efficiency remains one of the greatest cost/benefit initiatives

2030 economic energy savings potential

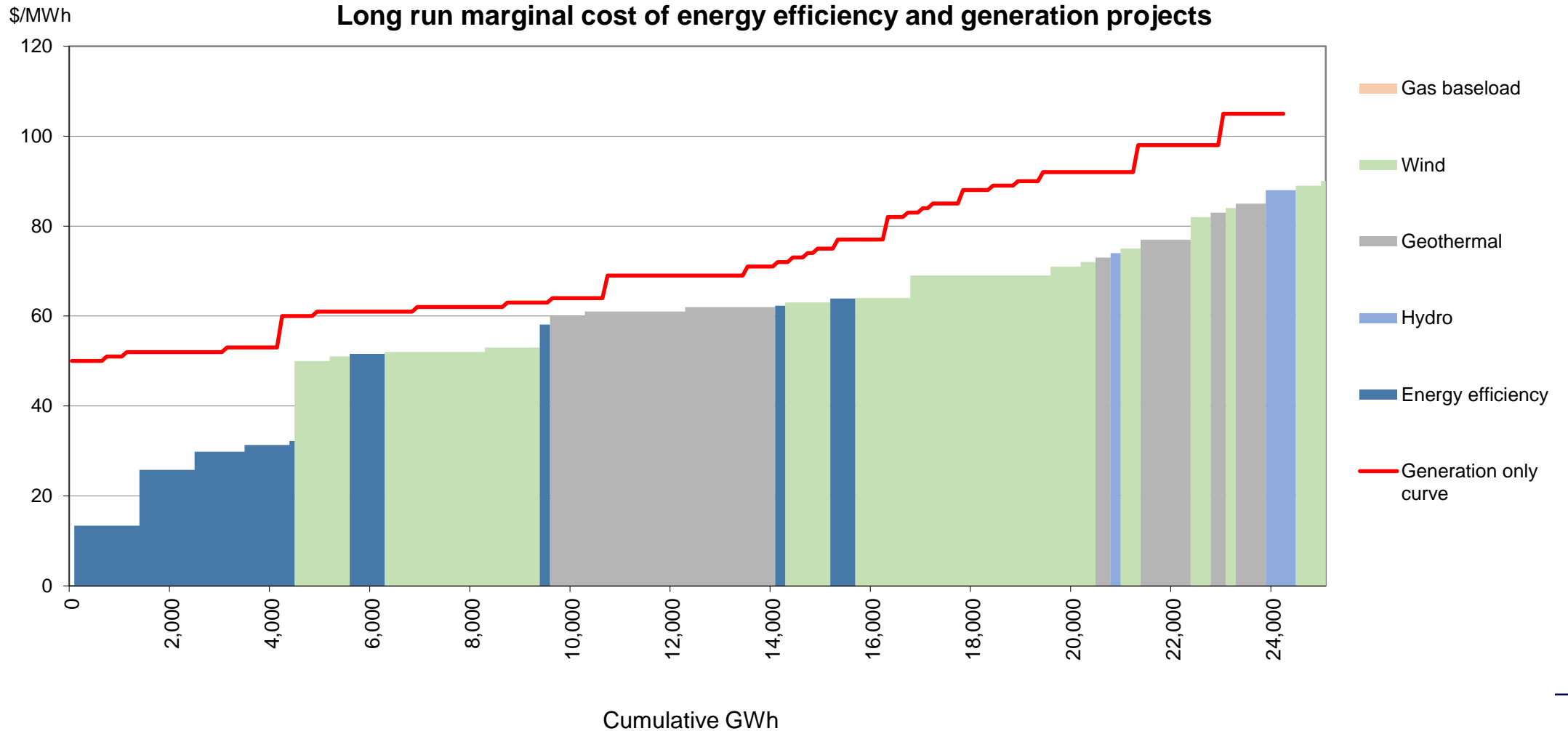
Energy efficient practices and technologies could reduce New Zealand's annual energy use by 20% by 2030.



Source: Economic Energy Potentials Tool 2016. EECA (2017)

Efficiency First

Energy efficient technology can cost less than new generation



Efficiency First

- **Retrofitting existing energy systems**
- **New Investment opportunities**
- **Utilising the digitalisation revolution**
- **Well planned maintenance**
- **Price signals through the Emissions Trading Scheme**
- **Further Regulation**
- **Developing professional capability**

“Innovations” in Energy Use

- **Business**
 - Heat Pump Technologies
 - Electrode Boilers
 - Heat Capture and Reuse
- **Transport**
 - EV's
 - Hydrogen – where will it go commercially?
- **Residential**
 - Hot Water
 - Lighting
 - Space Heating

Increasing supply of renewable generation

- **Geothermal** will meet some demand
- **Wind** will be key
- **Solar**
 - Grid scale booming worldwide
 - Commercial/Industrial scale will develop
 - Residential still has high payback scenarios
 - Community schemes evolving
- **Hydro**
 - Environmental considerations dictating
- **Biomass**
 - Options evolving but hampered by security of supply and cost
- **Liquid Fuels** are still costly



Questions?

