



Biofuels: in the pipeline

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Presentation outline



About EECA

Background

Biofuel economics

Fuel quality

Public perception

Summary



About EECA

Crown entity

- Energy Efficiency and Conservation Act 2000

To encourage, promote and support:

- energy efficiency
- energy conservation
- use of renewable sources of energy

Operational and policy mandate

Implementation of the National Energy Efficiency Strategy (NEECS)



Background on NZ biofuels

Biodiesel and bioethanol trialed in NZ in 1980s

10% ethanol allowed in PPSR from 2002

NEECS 2 PJ renewable transport fuel target

Low level biofuel blends:

- 5% biodiesel in diesel
- 5% bioethanol in petrol
- By-product sources, not crops
- Use in unmodified vehicles
- Uses existing refueling infrastructure



Government policies

Biofuel use meets objectives of:

- National Transport Strategy
- Climate change programme
- Sustainable Development NZ Programme of Action
- New Zealand Waste Strategy
- National Environmental Standards for Air Quality
- National Energy Efficiency and Conservation Strategy

Work to date

ERMA application for bioethanol petrol blends

Biofuel sources, quantity and economic analysis

Zero excise retained on bioethanol for petrol

Providing information to key stakeholders

NZ Standard for biodiesel

Bioethanol petrol blend quality

Input to policy development

Coordination of Biodiesel Officials Group



Biofuel feedstocks

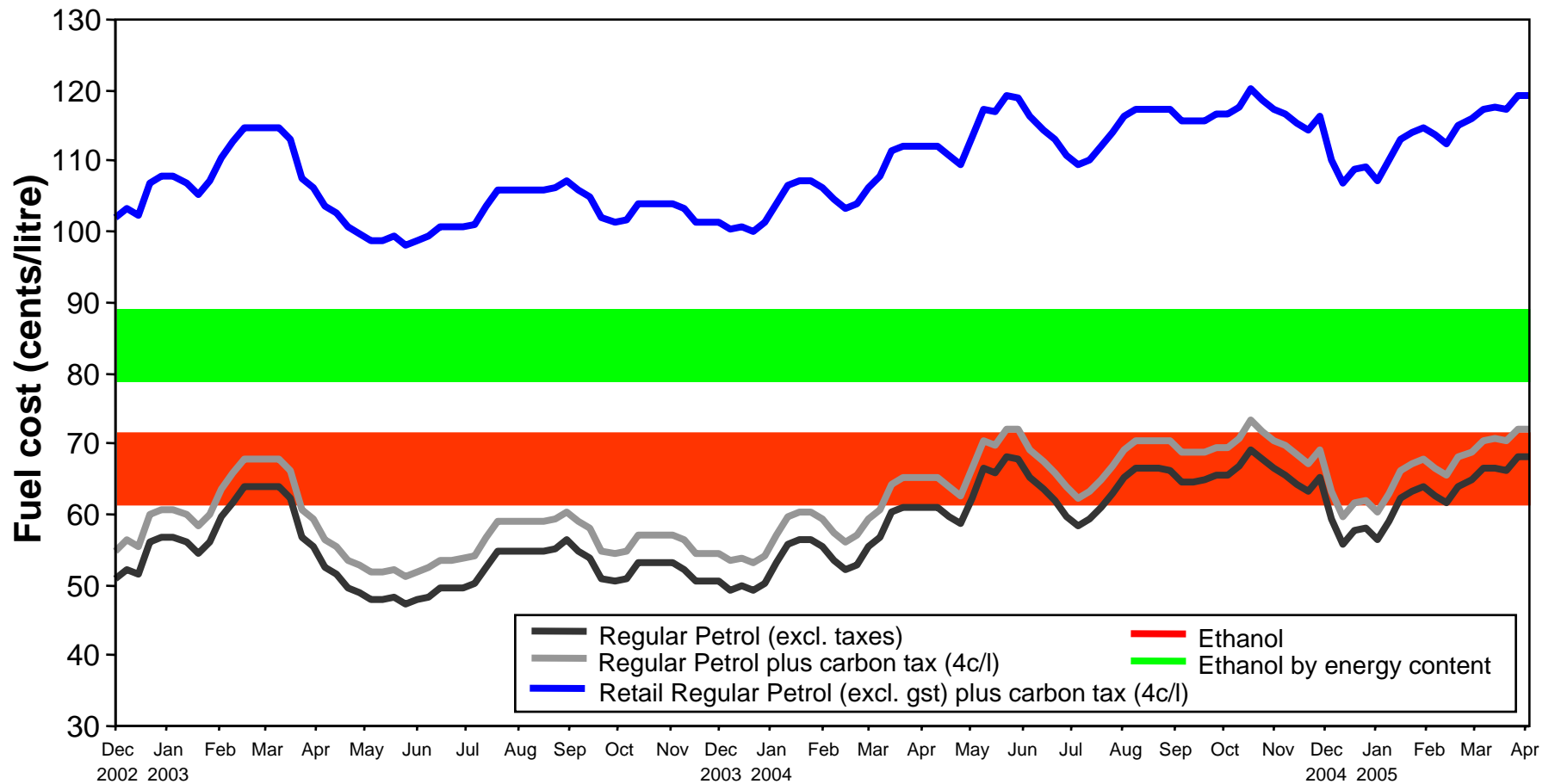
Biodiesel:

140 million litres per year potentially available from current NZ tallow and used vegetable oil sources (5 PJ/year)

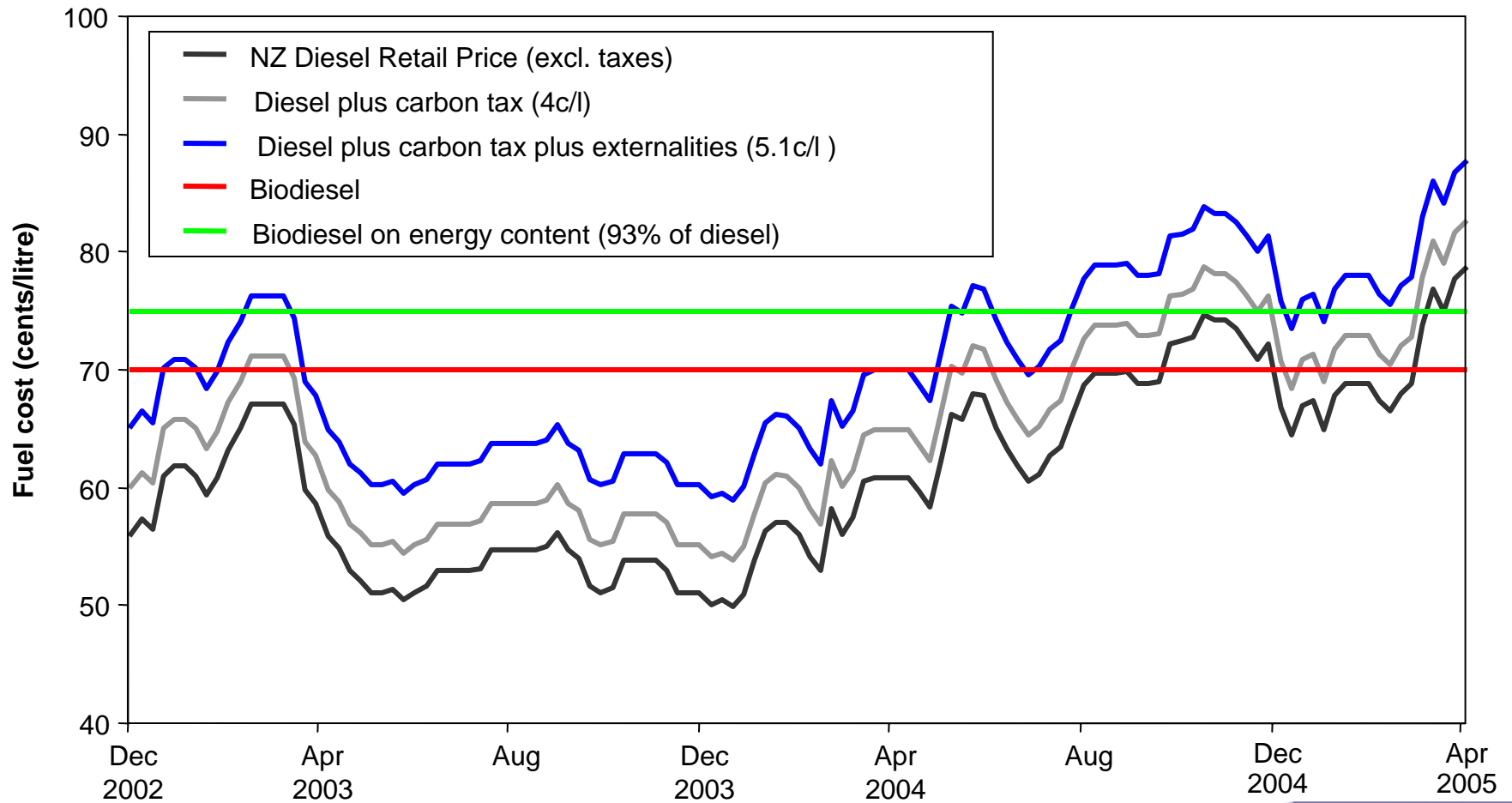
Bioethanol:

14 million litres per year available from current NZ ethanol production from whey (0.3-0.4 PJ/year)

Petrol and bioethanol costs



Diesel and biodiesel costs



Biodiesel Standard

NZ Biodiesel Standard is close to being published

Includes:

- production specification for B100
- specifications for retail blends (B5 and lower)
- specifications for non-retail blends (up to B100)

Production specs tailored to NZ feedstocks

Blend specs tied to existing PPSR fuel specs

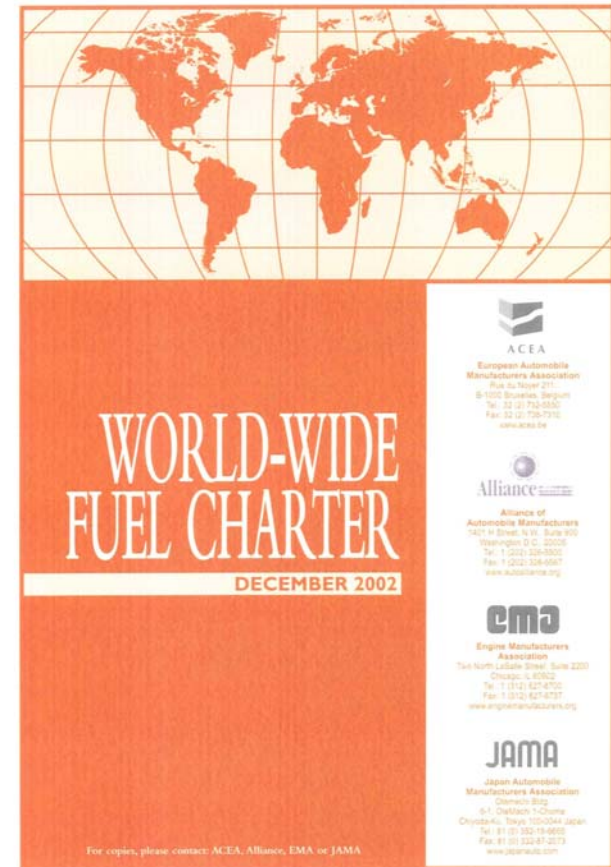
Comparable to existing International Standards



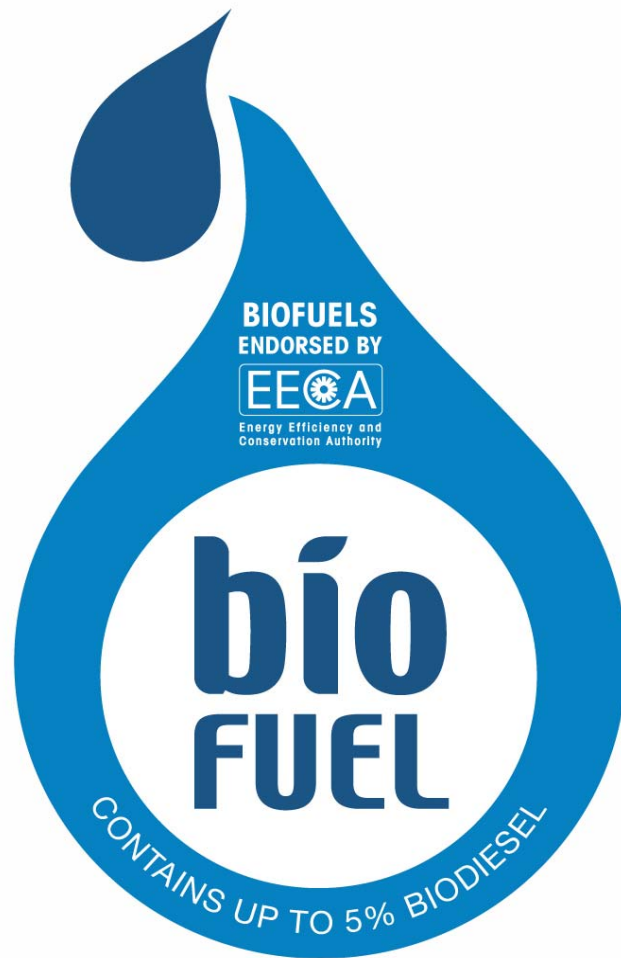
Voluntary ethanol specification

5% blend meets PPSR and:

- Ethanol meets ASTM D 4806 and pH_e of 6.5-9
- Ethanol denatured by 1% petrol meeting PPSR
- Corrosion inhibitor added so comparable corrosion properties to base petrol



Voluntary standard use



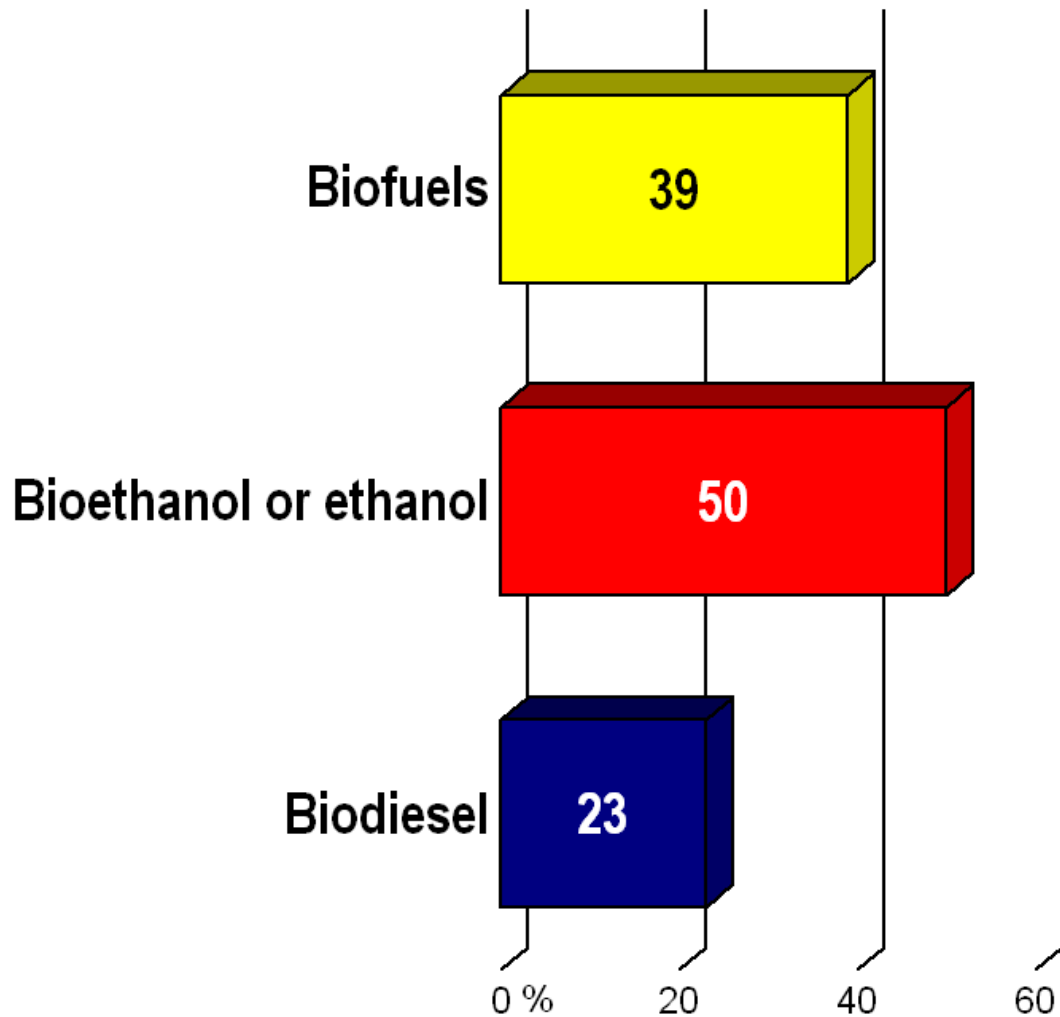
In short term, biofuel retailers must prove compliance with voluntary standards/specs to use EECA biofuels label

Promote to consumers to “only use biofuel blends with biofuels label”

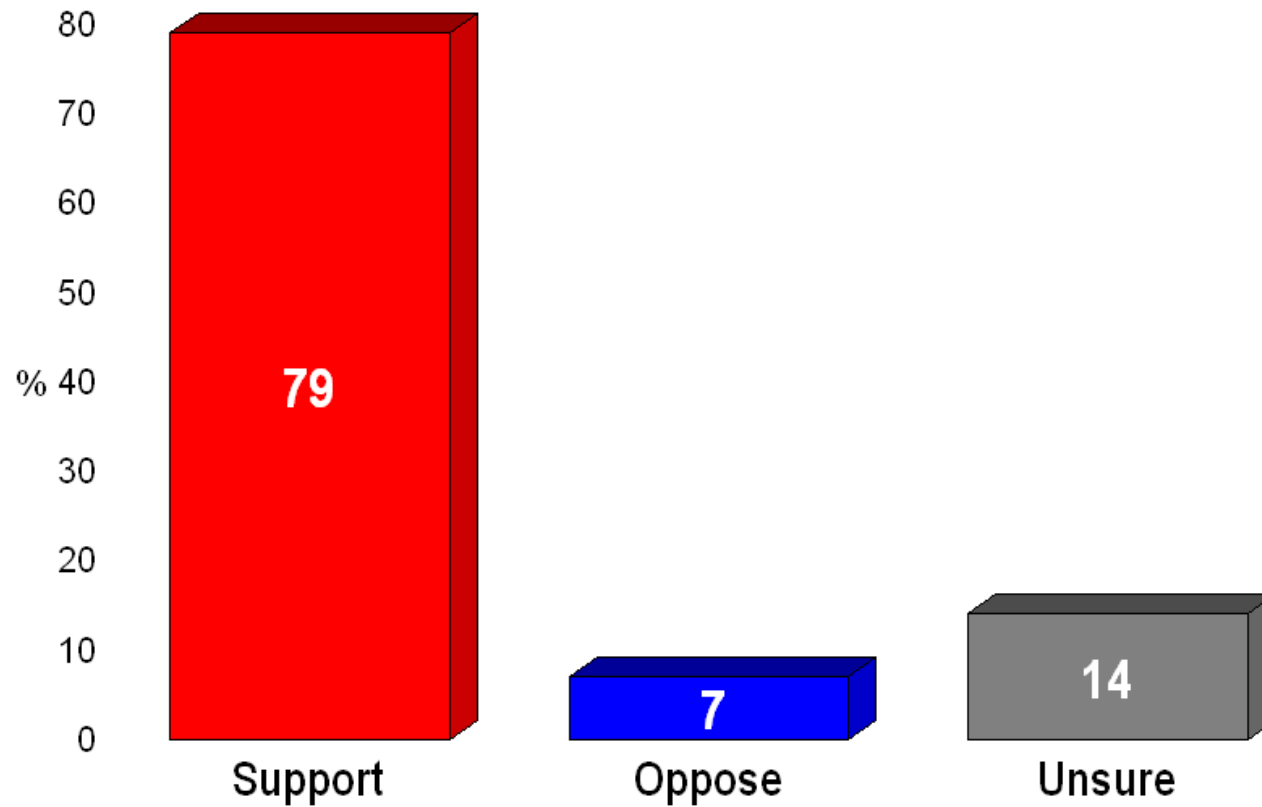
In medium term, seek to incorporate standards into regulations



EECA survey – have you heard of..?



Support after concept explained



Perceived benefits and barriers

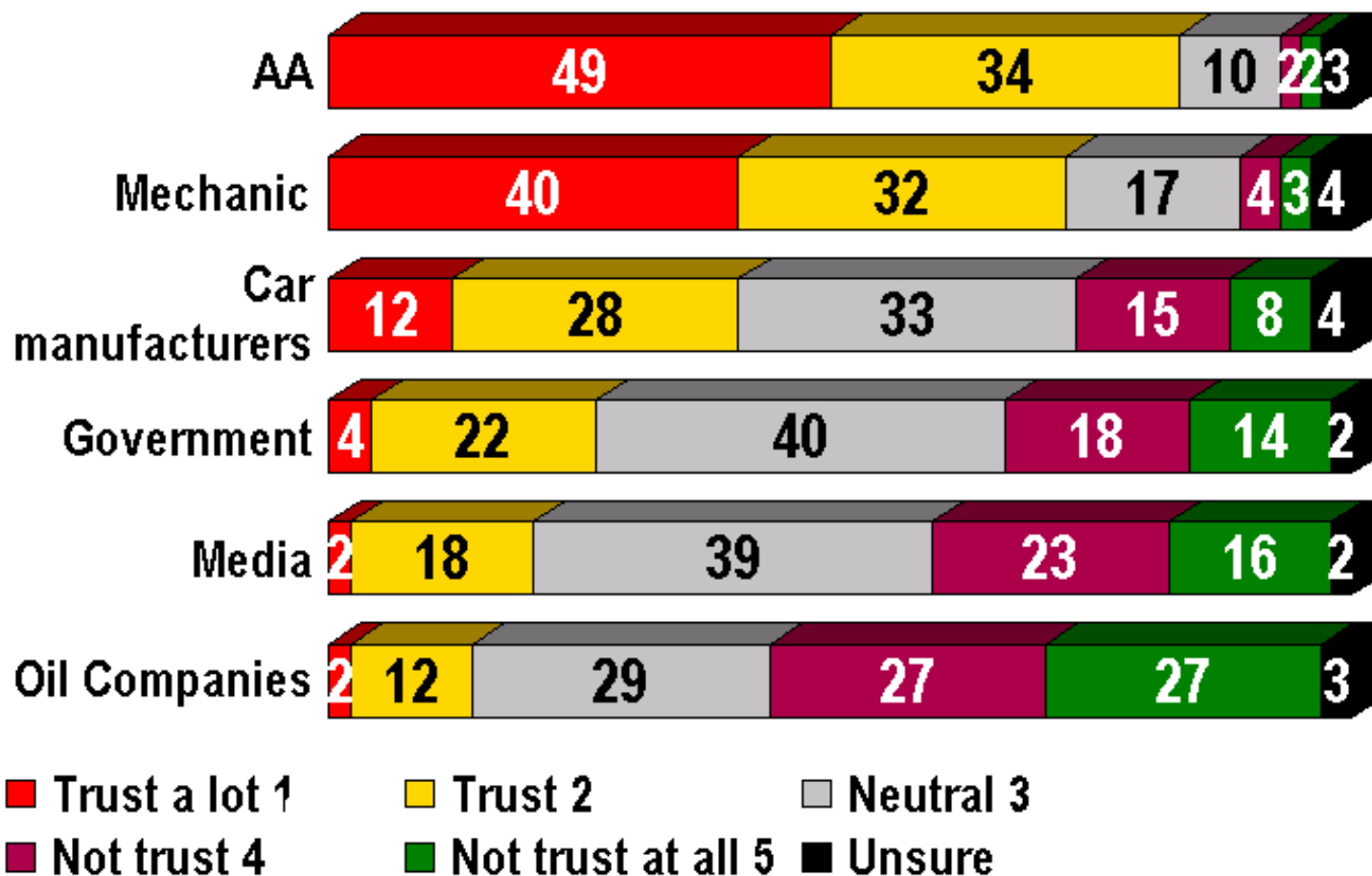
Positive

- Good for environment
- Independence from oil companies
- Good for NZ economy
- Way of the future

Negative

- Price
- Lack of knowledge
- Damage to vehicles
- Legacy of past alternative fuels

Communications issues – who to trust?



Lessons learned

Information

Price



SME innovation

Announced by Minister Hodgson 15 April 2005

Cash grants from 1 July 2005 to support demonstration projects for SMEs pre carbon tax

Projects selected in consultation with industry associations

Biodiesel in tourism transport listed as possible preferred technology for demonstration



Summary

Meet 2 PJ target with NZ by-product sources

Biodiesel currently competitive with diesel

Biodiesel provides best cost/benefit ratio

Difficult to incentivise biodiesel

No biofuels uptake with voluntary target

Grant for biodiesel demonstration in tourism

Other policy options being developed to ensure target is met

Improving energy choices

www.eeca.govt.nz

