



Finance and barriers to

Energy productivity



energy efficiency
COUNCIL



Energy productivity benefits



Why drive investment?



Energy market & affordability

Greenhouse gas reduction

Consumer Protection

Health

Productivity and economy

Jobs and investment

Getting what you paid for



Housing and health



THE LANCET

In Australia more people die from cold than heat

6.5 per cent of deaths vs 3.9 per cent in Sweden

1,200 avoidable deaths p.a.

Gasparri et al 2015 "Mortality risk attributable to high and low ambient temperature: a multicountry observational study" *The Lancet* Vol 386 No 9991

Productivity



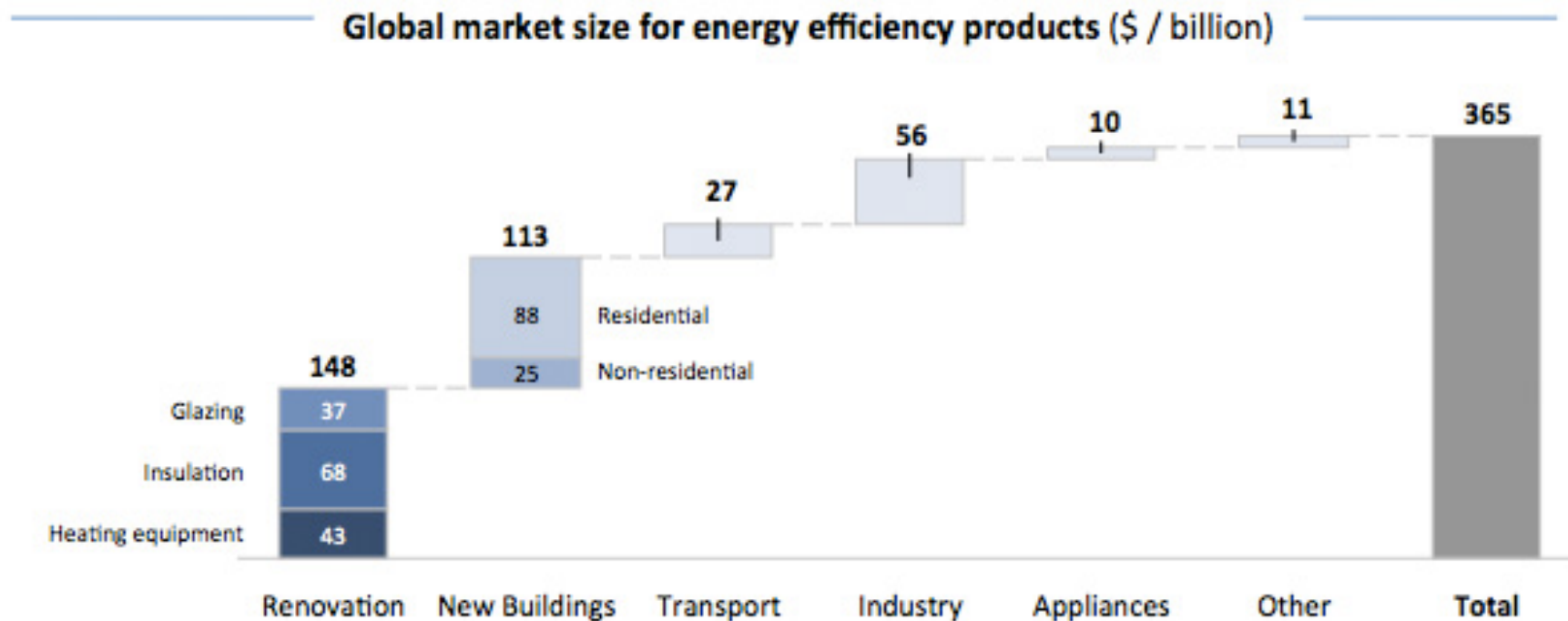
Staff - AUD\$168 million

Resource efficiency

Multi-factoral

EE up 1% >> GDP up 0.1%





Source: HSBC & Ecofys, 2014

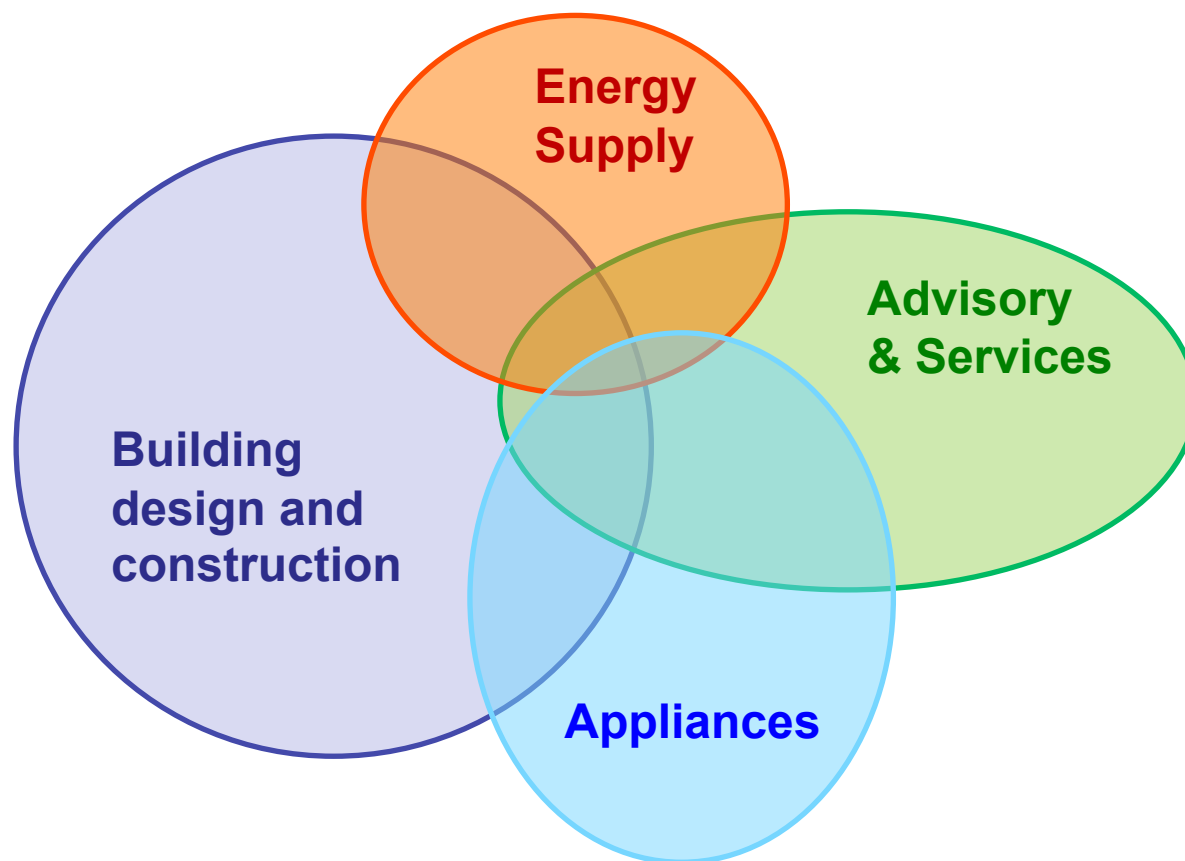
IEA - \$310-\$360 billion

320,000 jobs in California

Barriers to energy efficiency



Multiple markets



Optimising Investment



Supply-side



Demand-side



Market Failures



Supply

Demand

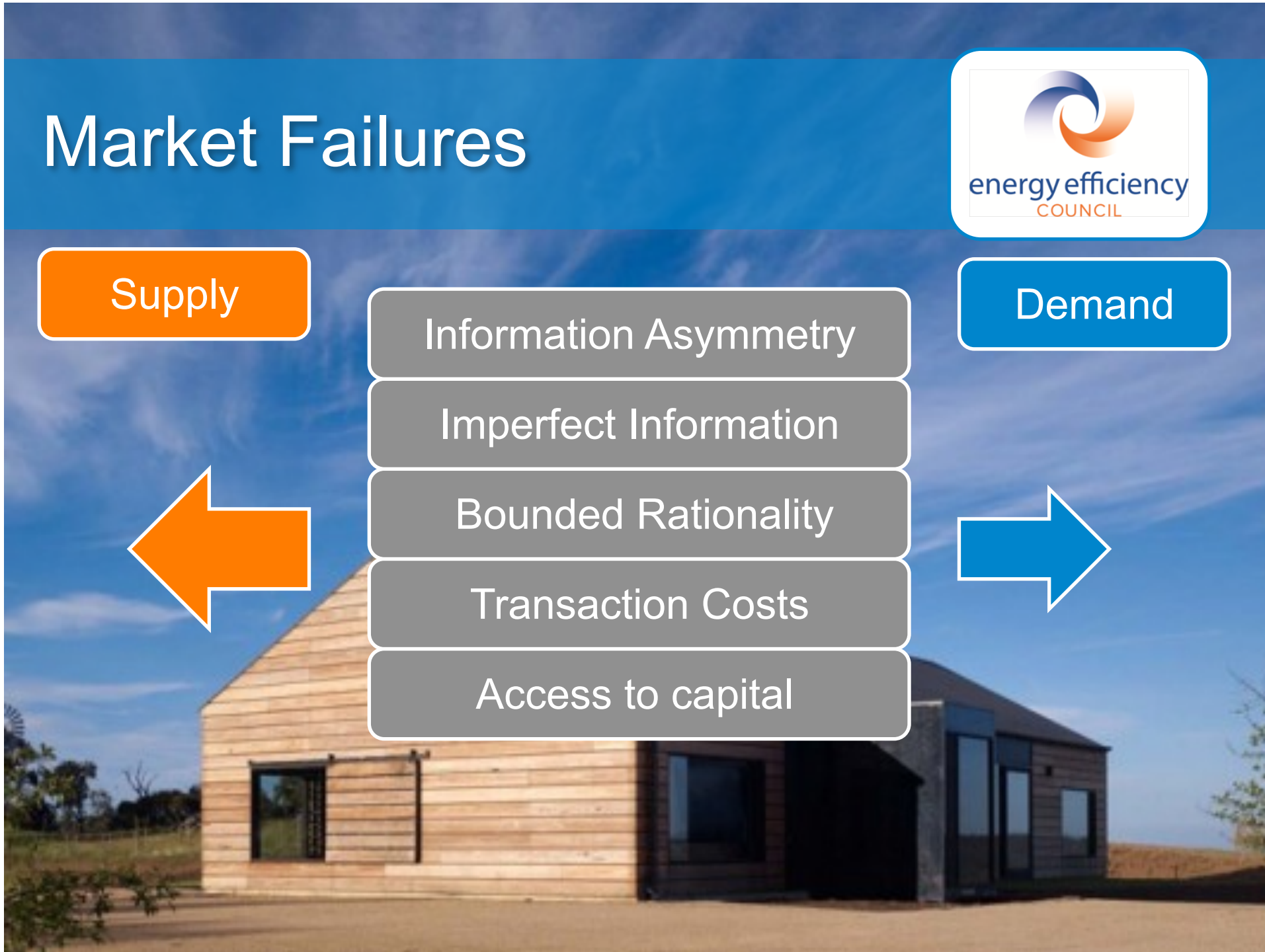
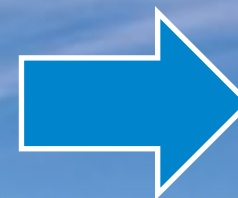
Information Asymmetry

Imperfect Information

Bounded Rationality

Transaction Costs

Access to capital



Supply-Side Bias



Supply

Demand

Mandated suppliers act for consumers & spread costs

Imperfect Information

Bounded Rationality

Transaction Costs

Access to capital

Imperfect Pricing

Misaligned incentives

Aggregation

Fix price & regs

Finance as a solution?



Barriers to finance?



Fix the other barriers!

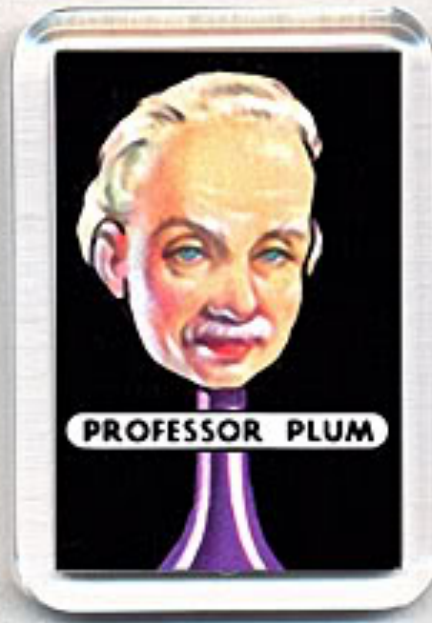
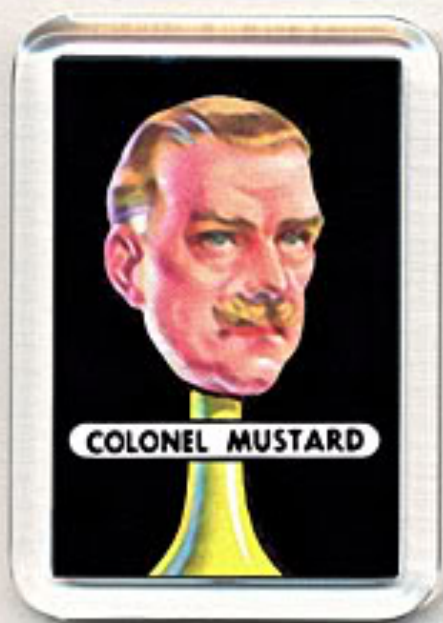
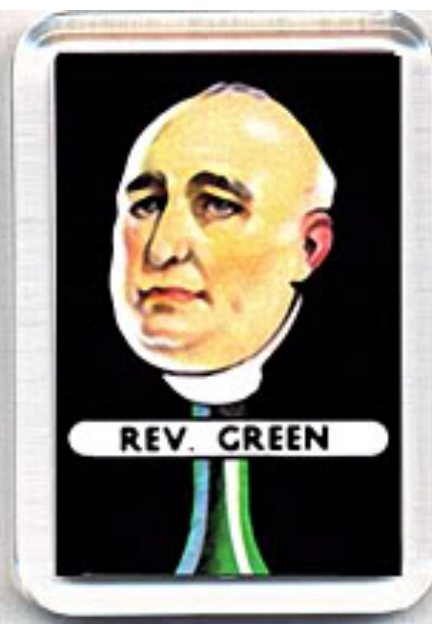
Government efficiency programs

CEFC / educate finance sector

Standardise - ICP

Align incentives (e.g. EUAs)

Who should invest in better energy management?





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