



**No silver bullet.
No silver bullet, I say.
No silver bullet.**

**Emissions
Trading:
important, but
no silver bullet**

Alan Pears

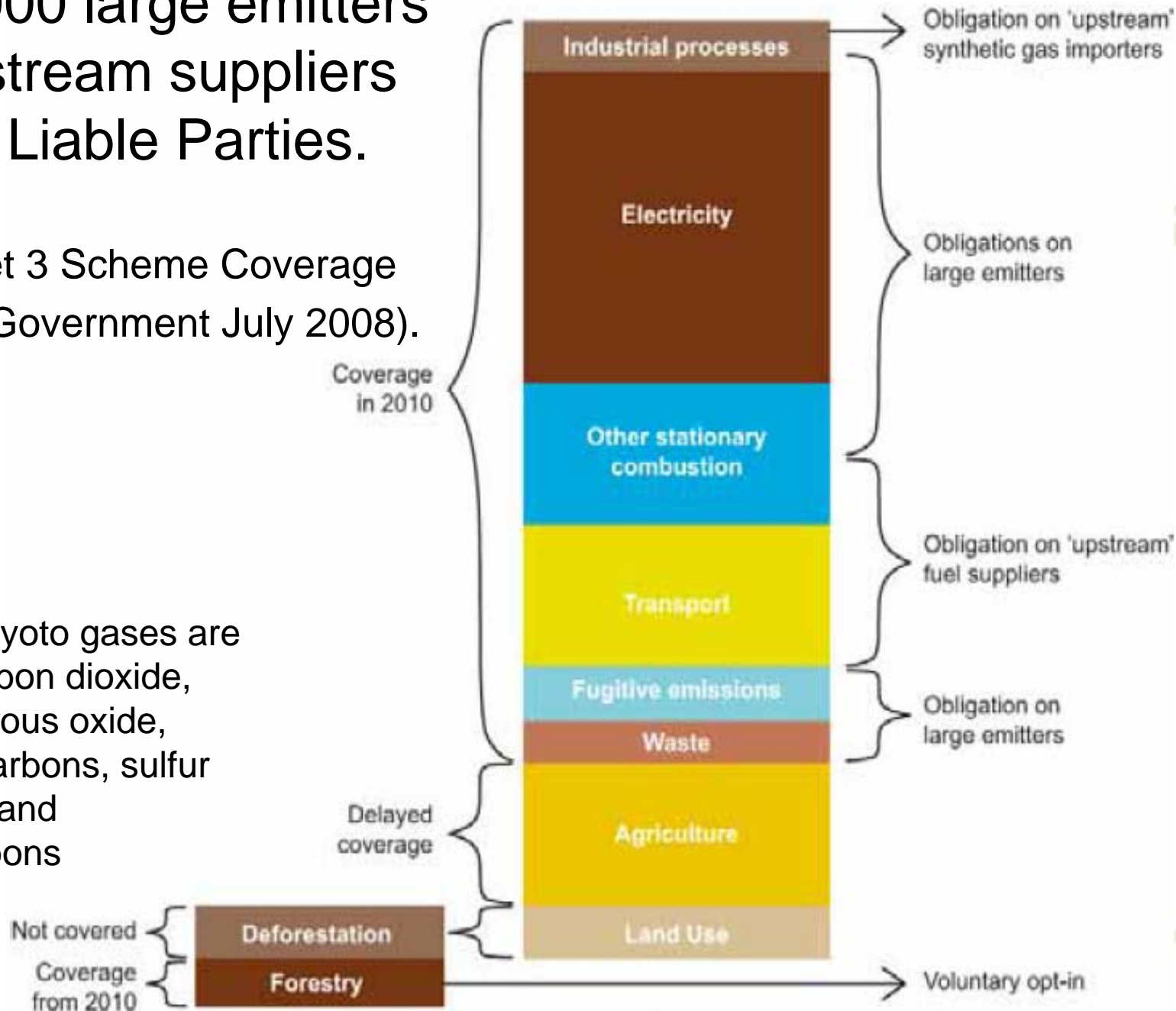
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Alternative Technology
Association Oct 2008

Up to 1,000 large emitters and upstream suppliers will be Liable Parties.

Fact Sheet 3 Scheme Coverage
(Australian Government July 2008).

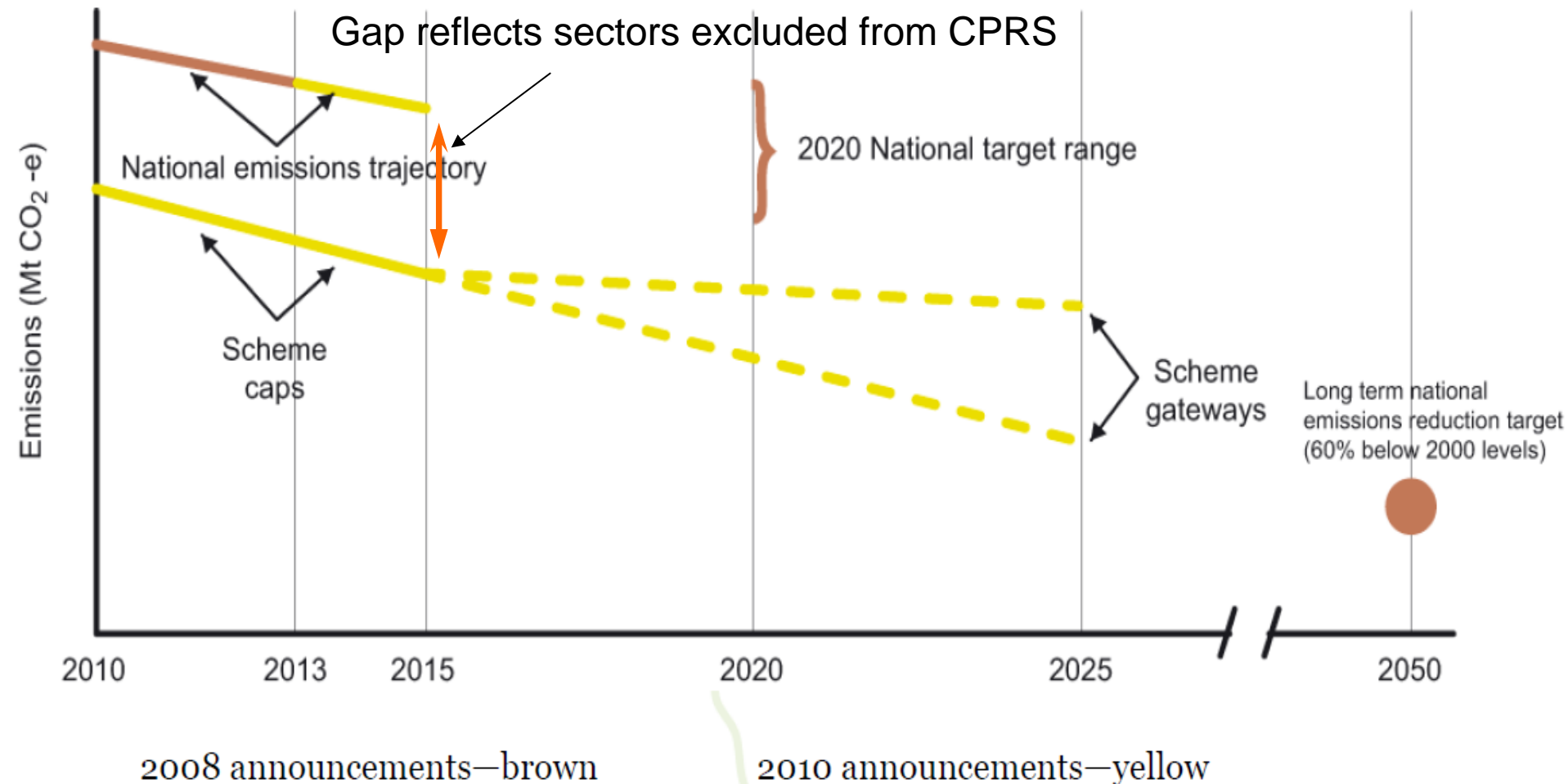
Note: the 6 Kyoto gases are included: carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, sulfur hexafluoride and perfluorocarbons



How Government proposes to provide short-medium term certainty and long-term guidance to Liable Parties and markets

Fact Sheet 6 *Scheme Caps and Gateways* (Australian Government 2008)

Figure 1. 2008–10 guidance over scheme caps and indicative national emissions trajectory

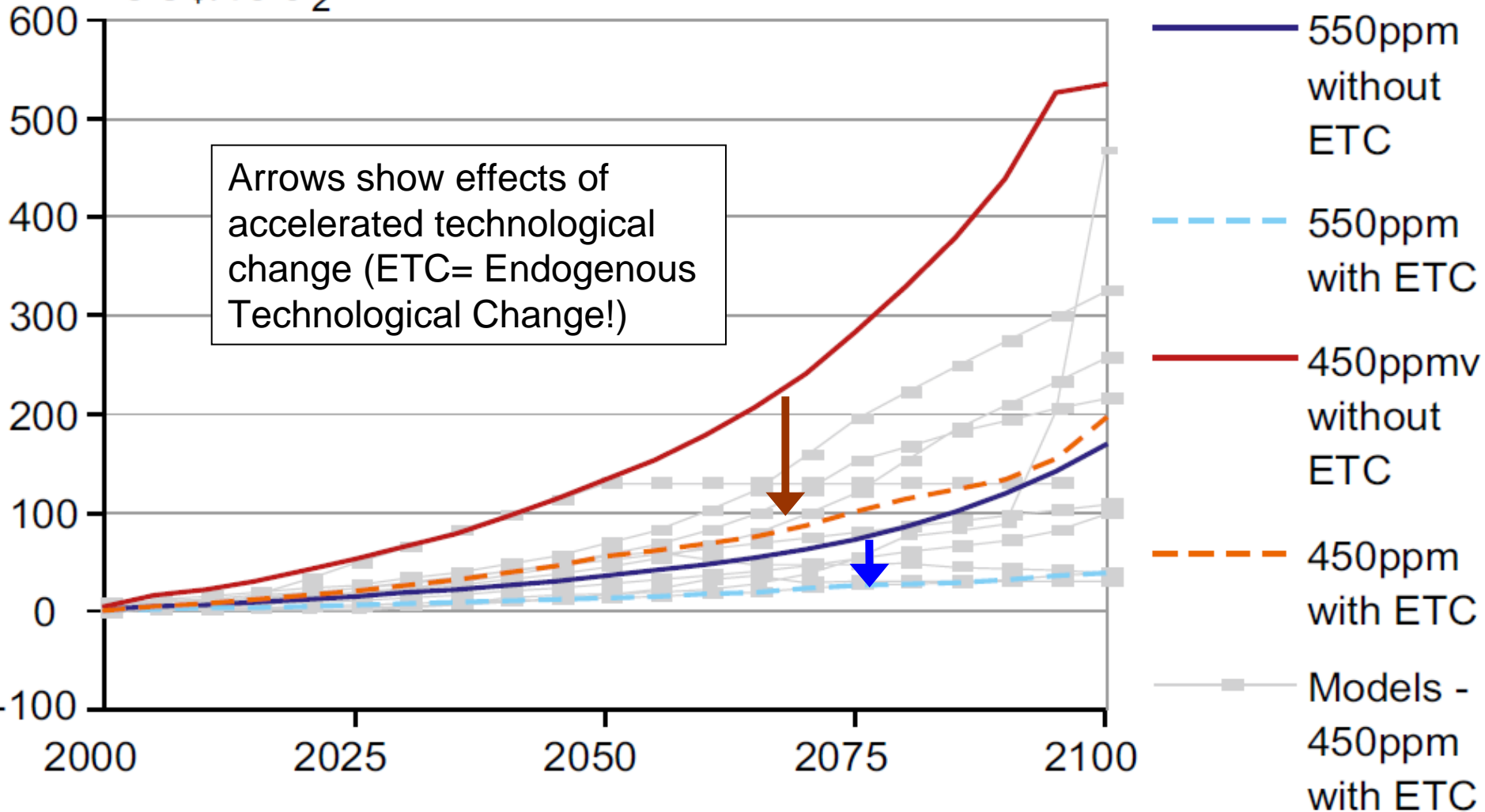


Range of future costs of emission permits for 450 and 550 ppm scenarios showing impact of accelerating technological change

– average of 9 models (IPCC WG3 Contribution to 4th Assessment Report,

Cross-sectoral chapter, Barker et al (2007))

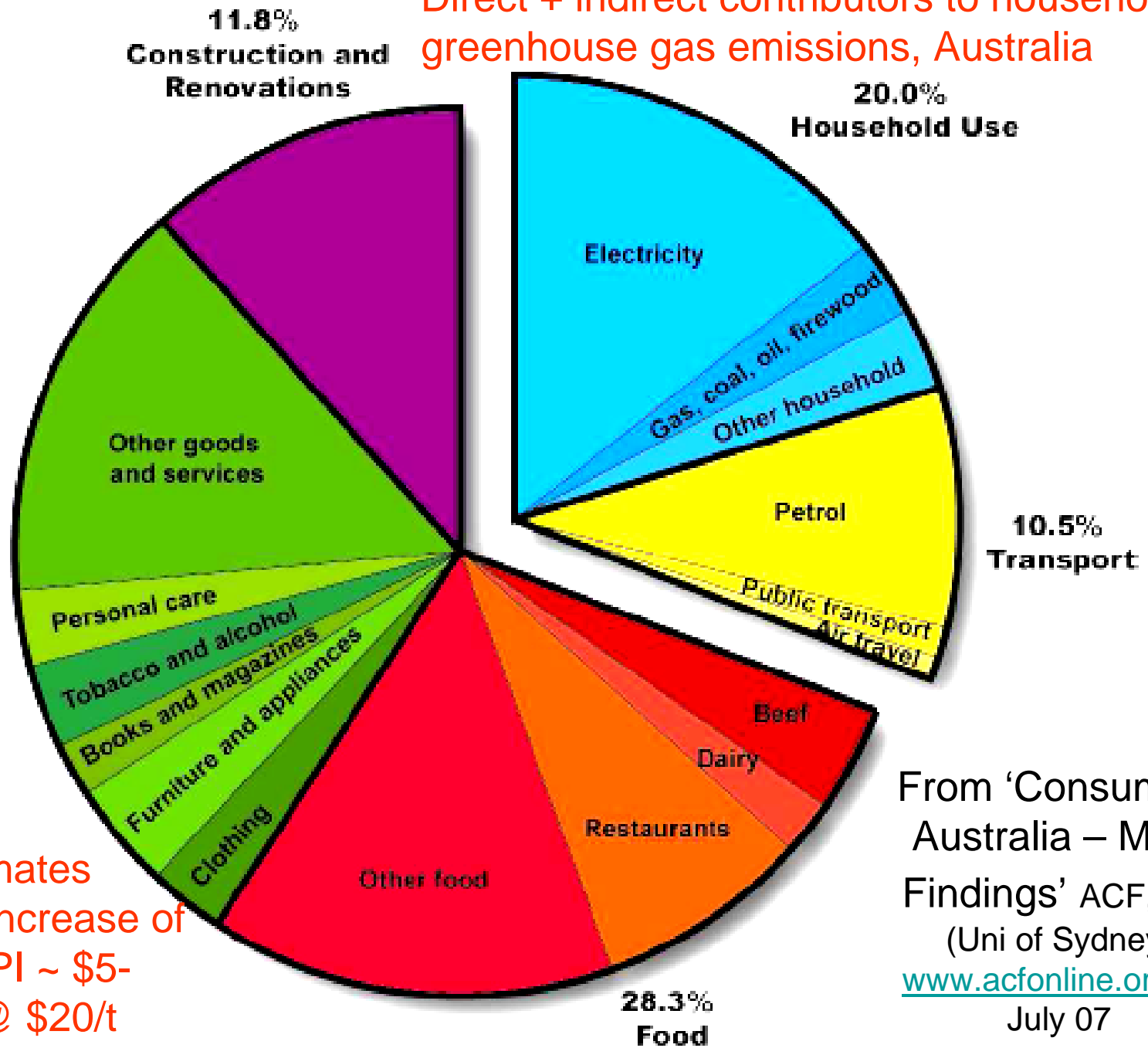
US\$/tCO₂



Emissions Trading: how it works

- Large emitters (up to 1,000 entities over 25,000 tonnes CO₂/year - \$1-2 million+ annual fossil fuel bills):
 - Must participate in emissions trading: must buy and surrender an emission permit for each tonne of emissions
 - Government sets a cap on number of permits, reducing over time
 - Likely permit price \$20-\$50/tonne CO₂, increasing over time
 - Can cut emissions (and permit costs) through energy efficiency, renewable energy, etc + assistance to trade-exposed, others
 - Will act in own interests, not 'least societal cost'
- Extra permit providers – outside the scheme but offering certified abatement – eg trees
- The rest – households, most business, most councils:
 - Large emitters who supply us with energy, goods and services increase their prices to cover cost of buying permits – we pay
 - Smart ones will make changes to cut the cost!
- Government will use revenue from sale of permits to help those affected to adjust

Direct + indirect contributors to household greenhouse gas emissions, Australia

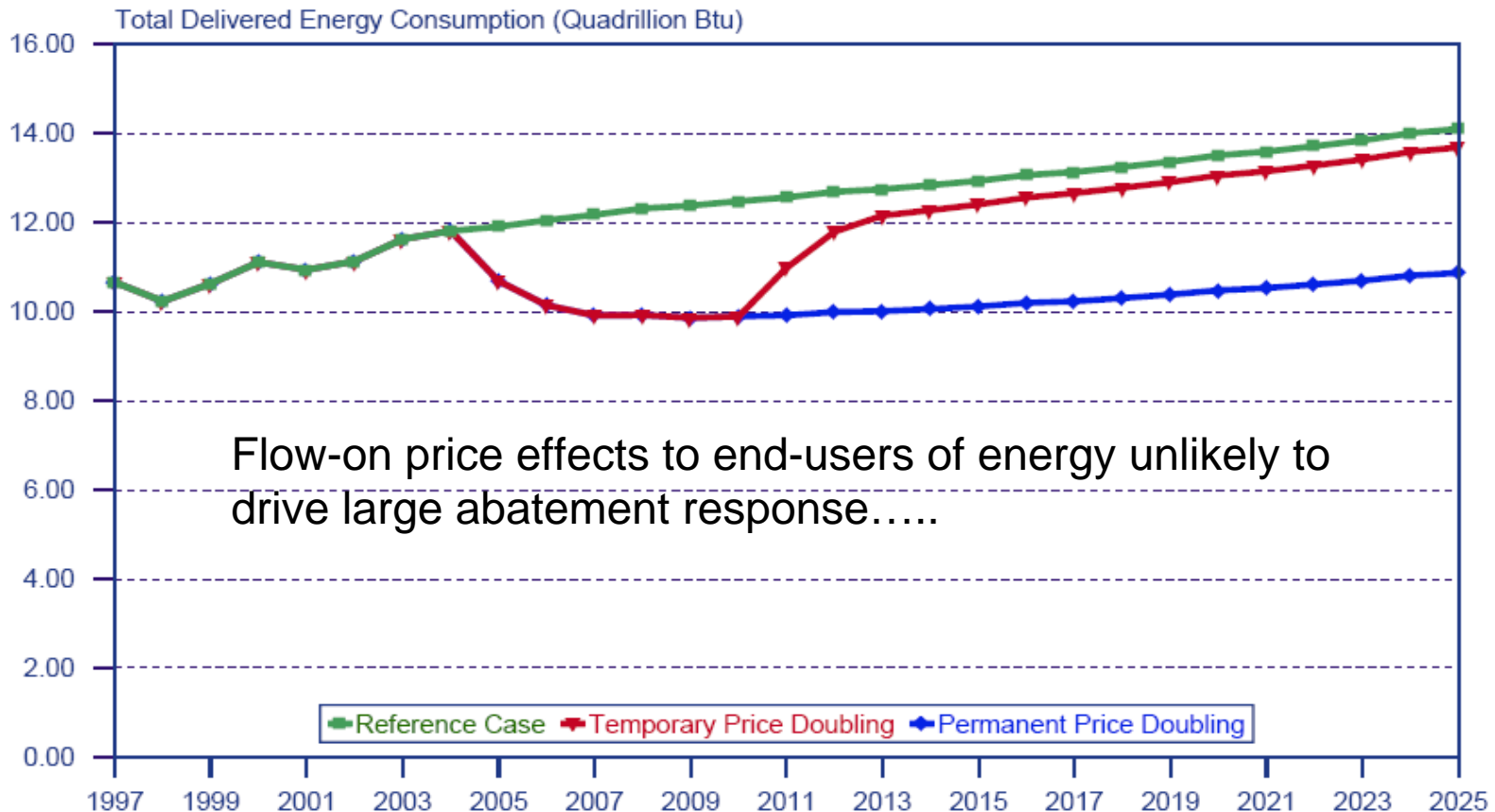


From 'Consuming Australia – Main Findings' ACF, ISA (Uni of Sydney) www.acfonline.org.au July 07

Gov't estimates 'once off' increase of 0.9% in CPI ~ \$5-20/week @ \$20/t

Price responsiveness of US residential sector energy use to doubling of energy prices (Wade, 2003). Impact of emissions trading on prices likely to be much less than this: present price 17c/kWh, \$25/t CO₂ adds 3.5 cents, so doubling in price equivalent to >\$125/t

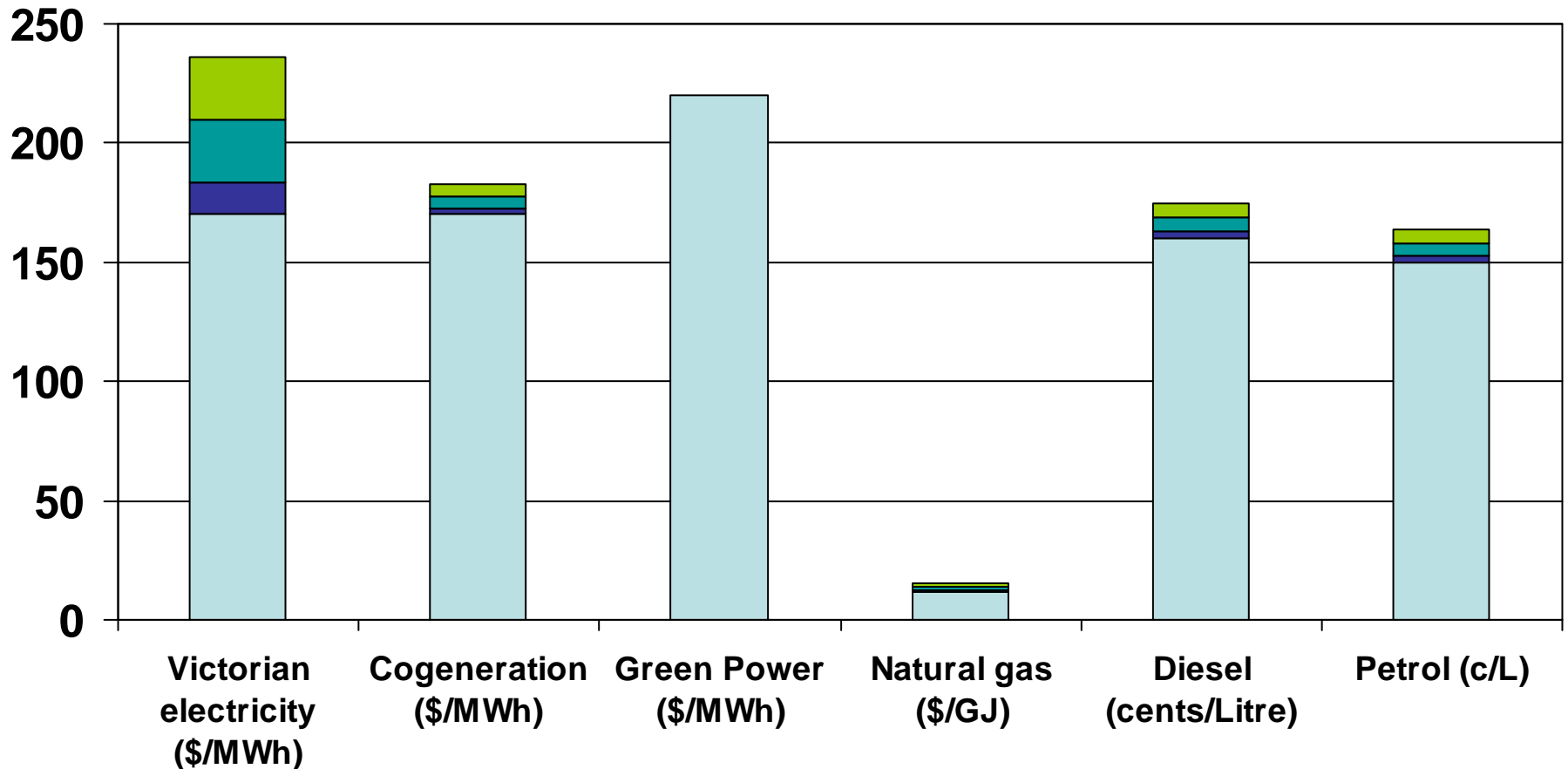
Figure 1. Response of Residential Delivered Energy Demand to a Doubling of Residential Sector Energy Prices



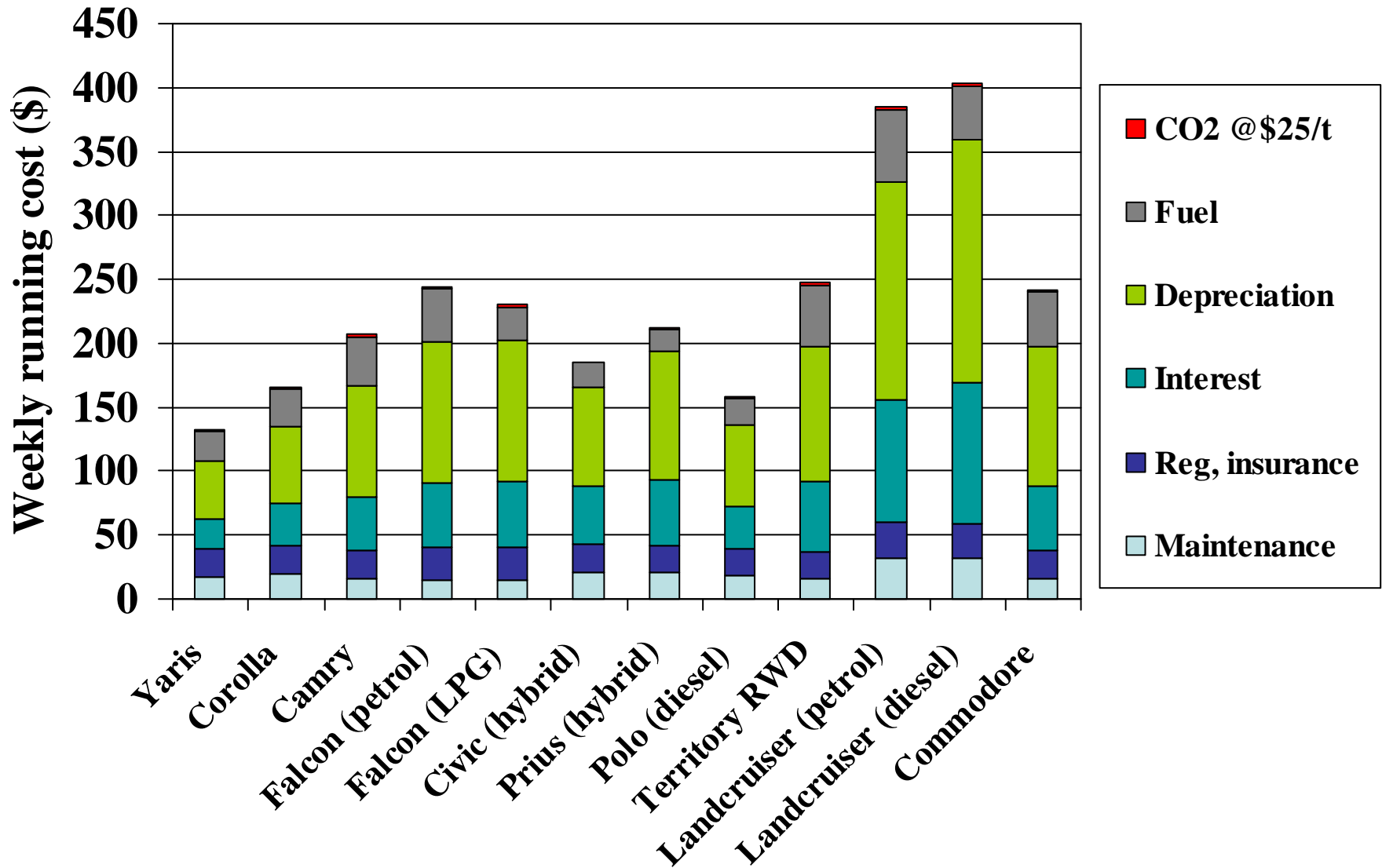
Source: Energy Information Administration, calculated from the following price path scenarios using NEMS AEO2003: regeneration of the reference case price path, ELAST03.D121203B; permanent price doubling case, ELAST03.D121202J; temporary price doubling case, ELAST03.D121203K.

Impact of CO2 prices on household price of various energy types – indicative only, excluding taxes and profit margins.
 Note: prices assumed 17c/kWh for electricity & cogen; Green Power 22c/kWh, gas 1.2 c/MJ, Diesel \$1.60/L, Petrol \$1.50/L

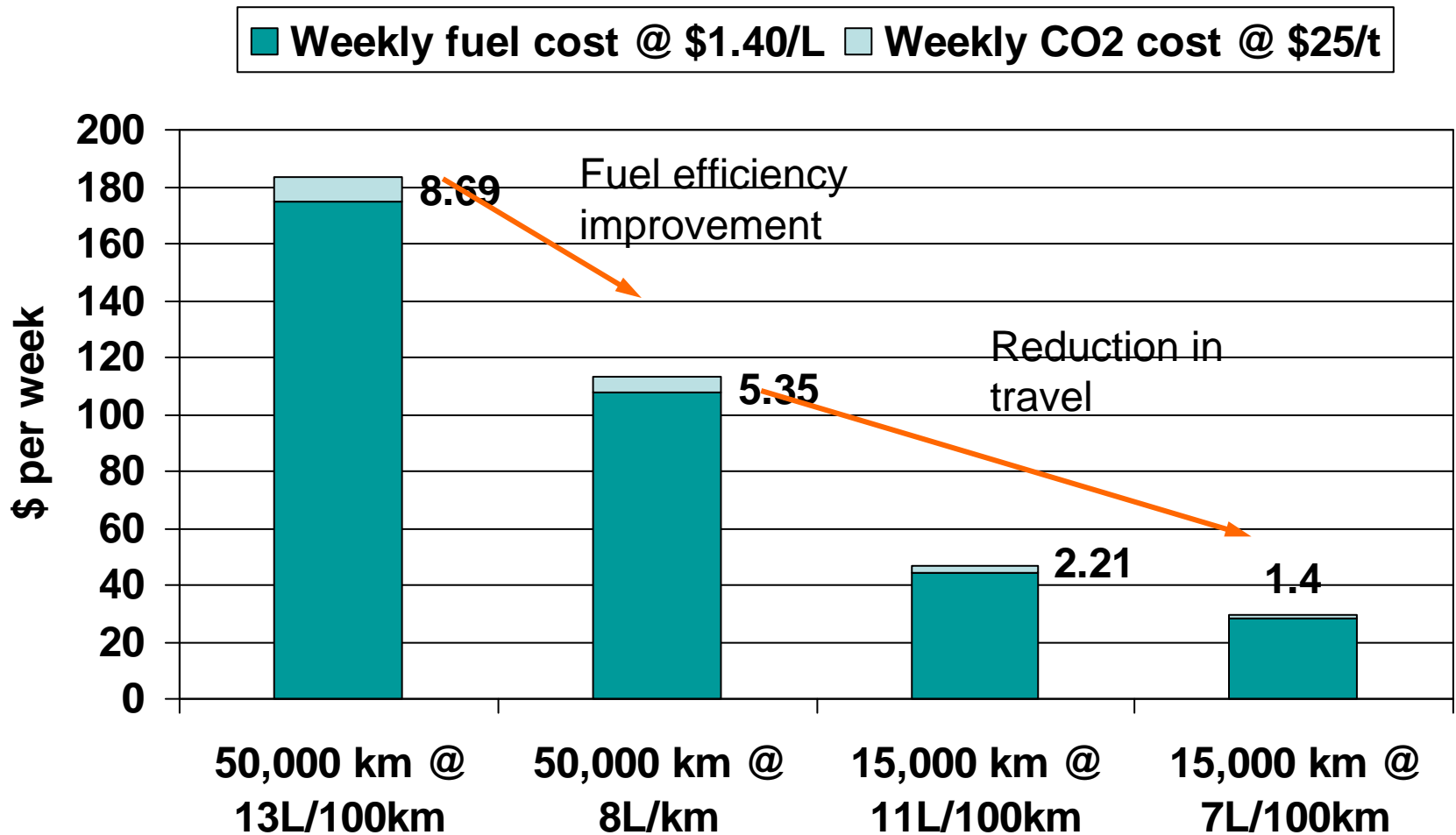
0 \$10/tonne CO2 \$30/t \$50/t



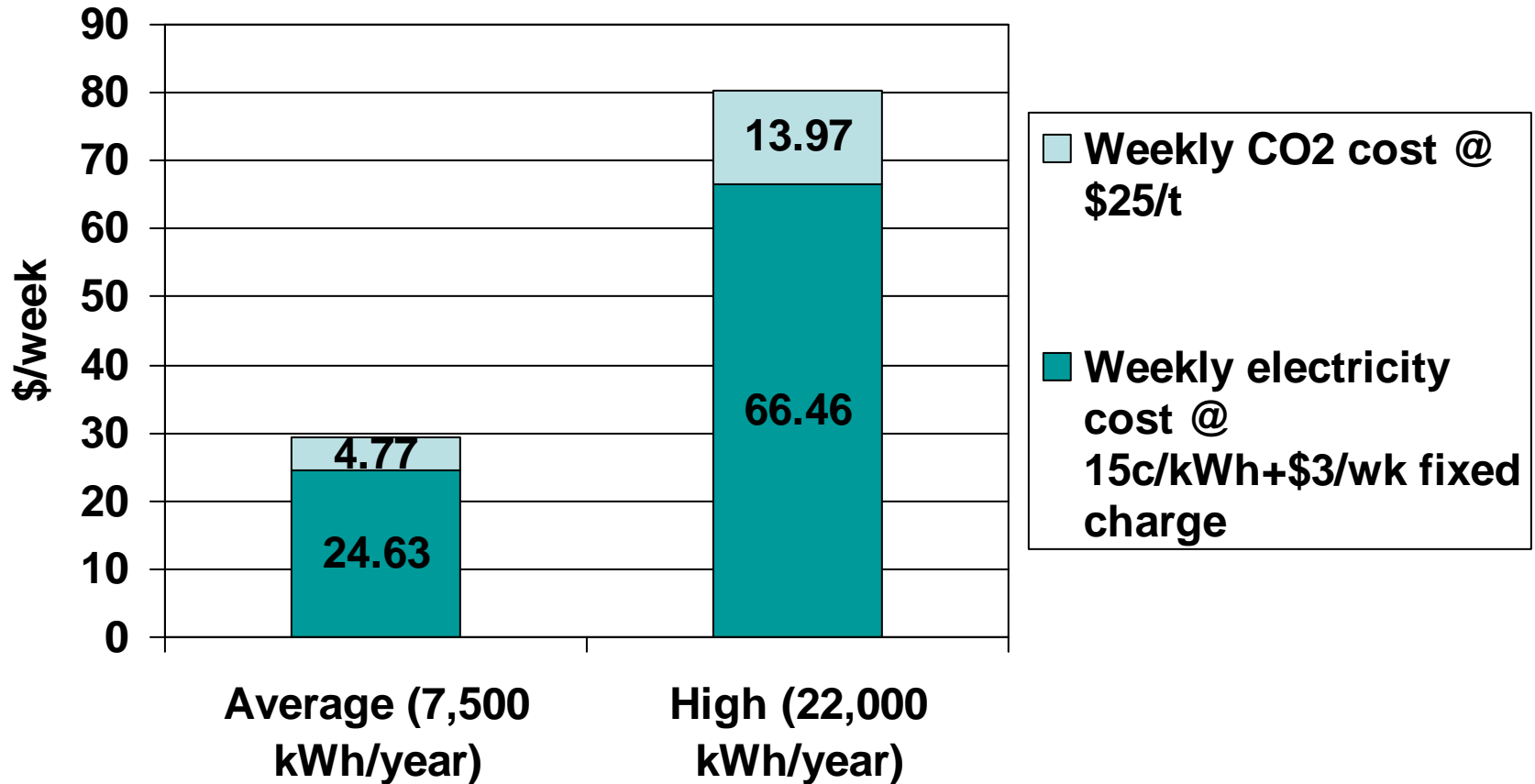
Weekly running costs of passenger vehicles, 2008 (Royalauto June 2007) – 15,000 km pa owned for 5 years, paid off over 5 years, unleaded \$1.36 c/L, diesel \$1.43c/L, LPG \$0.61c/L



Impact on car fuel cost/week of improved fuel efficiency and reduced travel distance. \$25/tonne CO2 impact also shown. Note fuel cost is only 30% of average household expenditure on transport – typical 'other costs' is \$75-200/week



Impact on 2007 Victorian household weekly electricity cost of \$25/tonne of CO₂ – high consumers will suffer higher cost impact, but already experience high costs

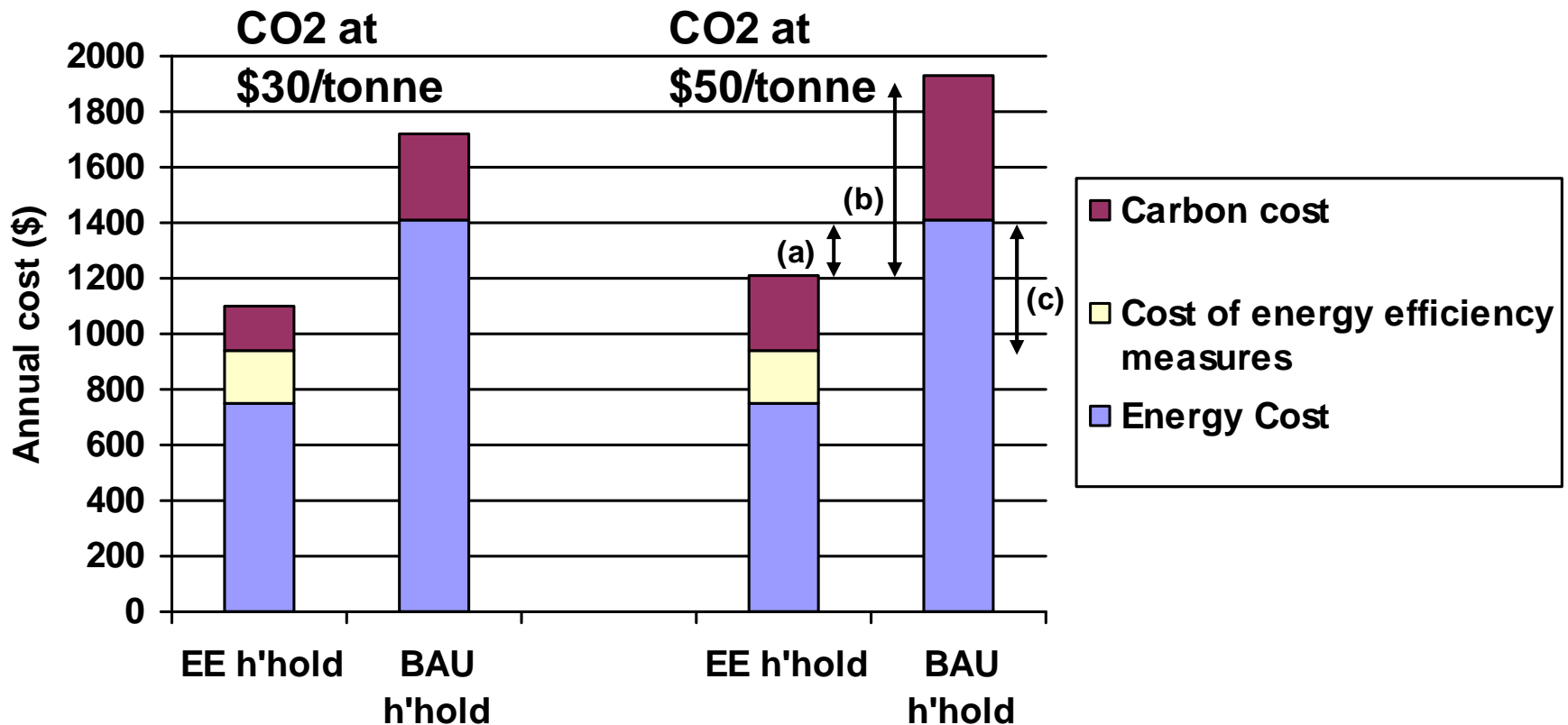


Indirect impacts of emission price

- Examples of impacts on prices of material and service inputs (NIEIR, 2007) for \$25/t CO₂ *if suppliers do not cut emissions and full cost passed through*:
 - Sheet metal products 3.7%
 - Plastic products 2.4%
 - Household appliances 2.1%
 - Bakery products 1%
 - Fruit and vegetables 1.3%
 - Clothing 1.8%
 - Health services 0.3%
 - Average 1.6%
- Impact varies with greenhouse intensity – eg best bricks cost increase is 1/5 of worst, recycled steel 1/3 of new steel, etc
- Government compensation/assistance.....

Household energy savings for an efficient 'average' household per annum: using less energy offsets higher price/unit

(from *Energy and Equity* ACF/ACOSS/Choice, 2008)



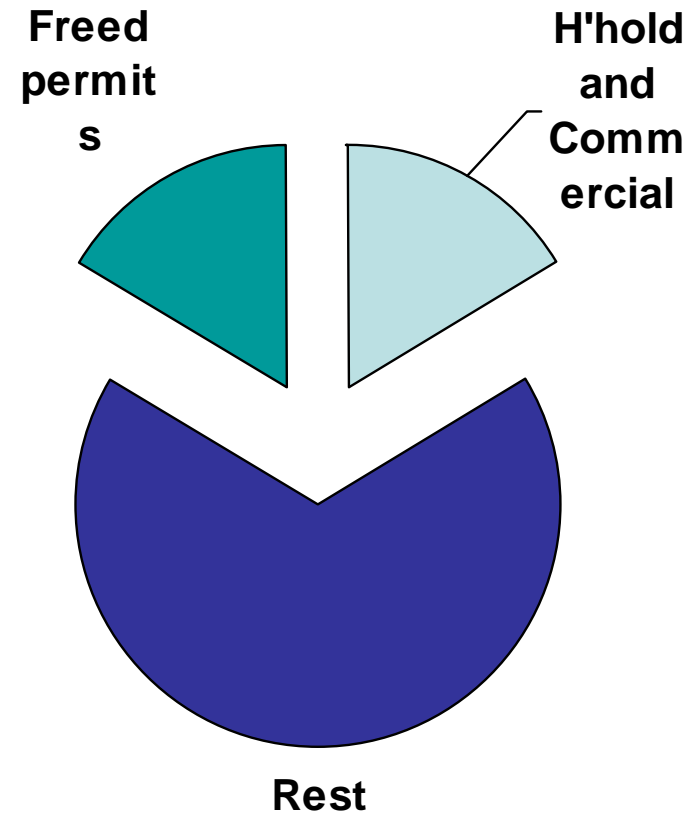
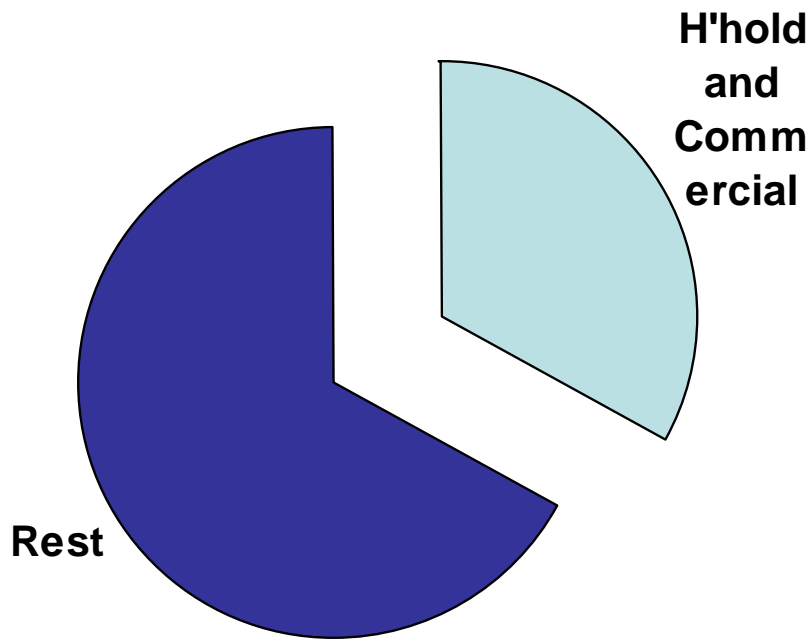
Emerging 'Complementary' Actions

- Government incentives – VEET, Green Loans, Industry funds, etc
- Stronger regulation: buildings, HWS units, urban development, appliance MEPS, etc
- Focus on upgrading existing buildings, helping low income households
- Support for growth in renewable energy, energy efficiency, businesses that monitor or cut emissions, suppliers of low emission products and services
- Reform of energy markets??
- Removal of taxation and other distortions??
- Investment in low emission infrastructure??

Action Options to cut permit costs

- Energy efficiency:
 - New and existing buildings, equipment, infrastructure
 - Behaviour
- Fuel switching:
 - Natural gas (not always)
 - Renewables (including energy from ‘wastes’)
- Materials:
 - Low emission sources suited to low emission processing
 - Recover, re-use and recycle
 - Avoid emissions (from decomposition) and produce useful energy from wastes
- Goods and Services: low emission supply chains
- Buy offsets/additional permits of types you prefer

Under present CPRS proposal, if households and commercial sector halve fossil fuel use under a fixed emission cap, it does not cut Australia's emissions. It leaves more permits available for other emitters and reduces permit price!



The 'Voluntary Abatement' Problem

- We need a clause that requires Gov't to cut the cap in response to certified voluntary abatement through renewable energy and energy efficiency
- You *can* cut Australia's/global emissions below the cap by:
 - Voluntarily buying and surrendering permits
 - Buying and surrendering internationally tradable permits (Kyoto Units – eg Clean Develop't)
 - Buying and surrendering permits created by reforestation

Take control now!

Build a strategy with short and long term actions, and make every investment a future asset, not a liability

