Economics of Energy Demand Reduction

Hamish Low

23rd November 2015
Economics and Demand Reduction

Role of economics: framework for understanding policies

- Economics of reducing energy demand
  - Changing inputs in production: input substitution
  - Reducing consumer demand for goods: consumer shifting
  - Preferences or prices

- Policy Objectives: GDP, Well-being
Demand Reduction: Input Substitution

- **Principle of targeting**: directly change demand for energy by firms
- **More costly to produce**: less competitive. Outsourcing energy demand
Demand Reduction: Consumer Shifting

- Reduces both labour and materials. Indirect effect

Diagram:
- Materials vs Labour
- Reliance on cheap materials
- Reduced demand by consumers
Demand Reduction: Consumer Shifting

- Reduces both labour and materials. Indirect effect
- Desire for consumer shifting: paternalism vs price of energy.
Demand Reduction: Consumer Shifting

- Is the analogy **smoking**? or **congestion charge**?
Demand reduction and GDP

- Do GDP measures capture well-being?
- No ...
- But does that matter?
Demand reduction and GDP

- Key issue: not that individuals are “maximising their consumption”
- Problem with GDP: policy is based on GDP
Demand reduction and GDP

- Key issue: not that individuals are “maximising their consumption”
- Problem with GDP: policy is based on GDP
  - Part of benefit of supply-side innovation captured in GDP
  - Costs of demand reduction captured in GDP
  - How to evaluate benefits of demand reduction?