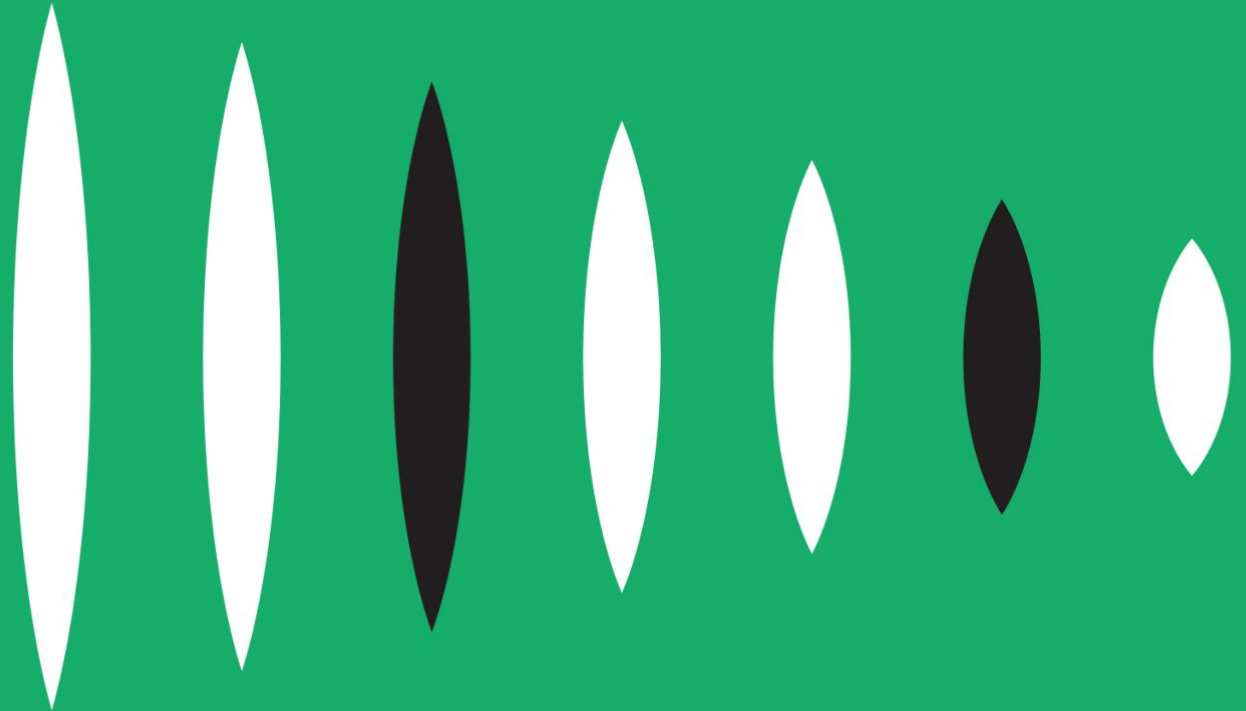


# Multiple Impacts of Energy Efficiency

Launch

Canberra

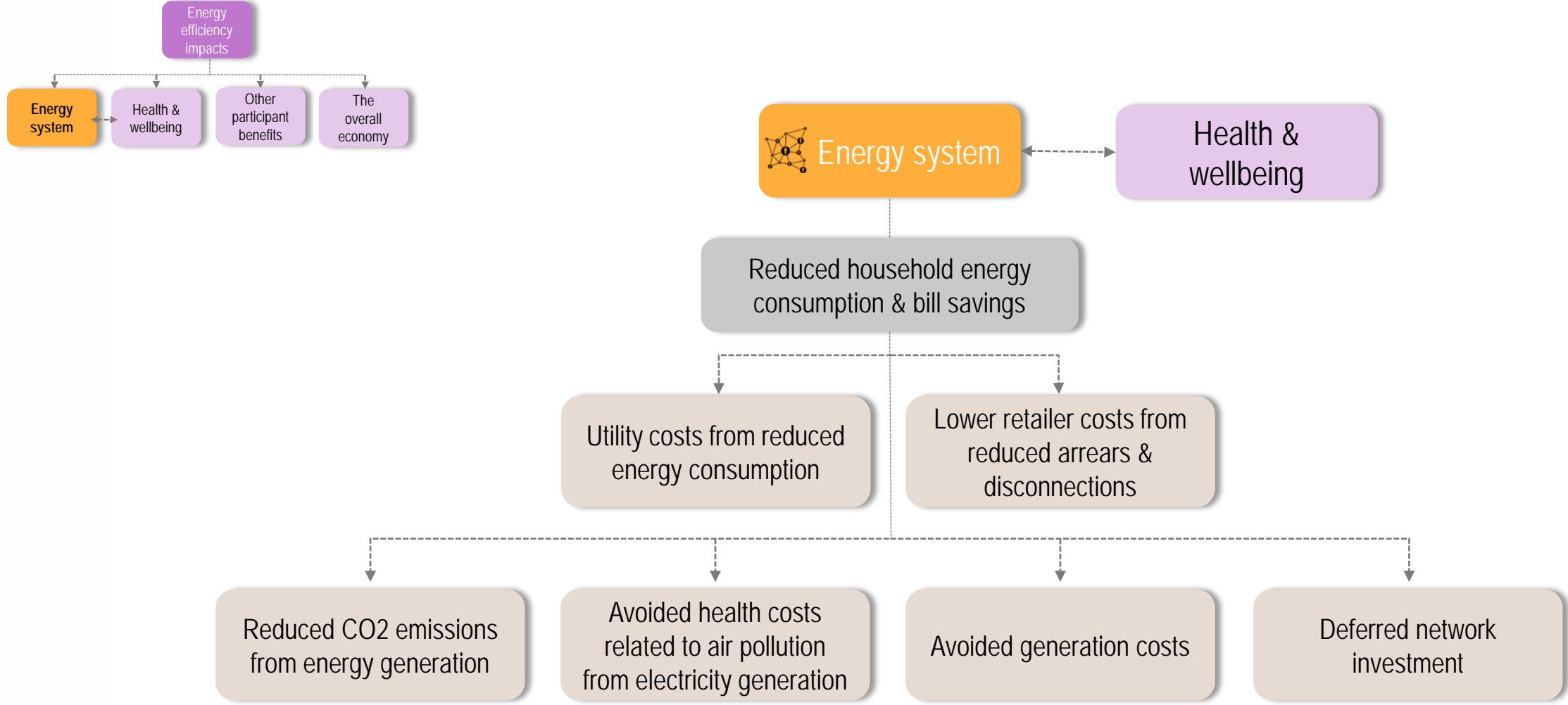
October 2017



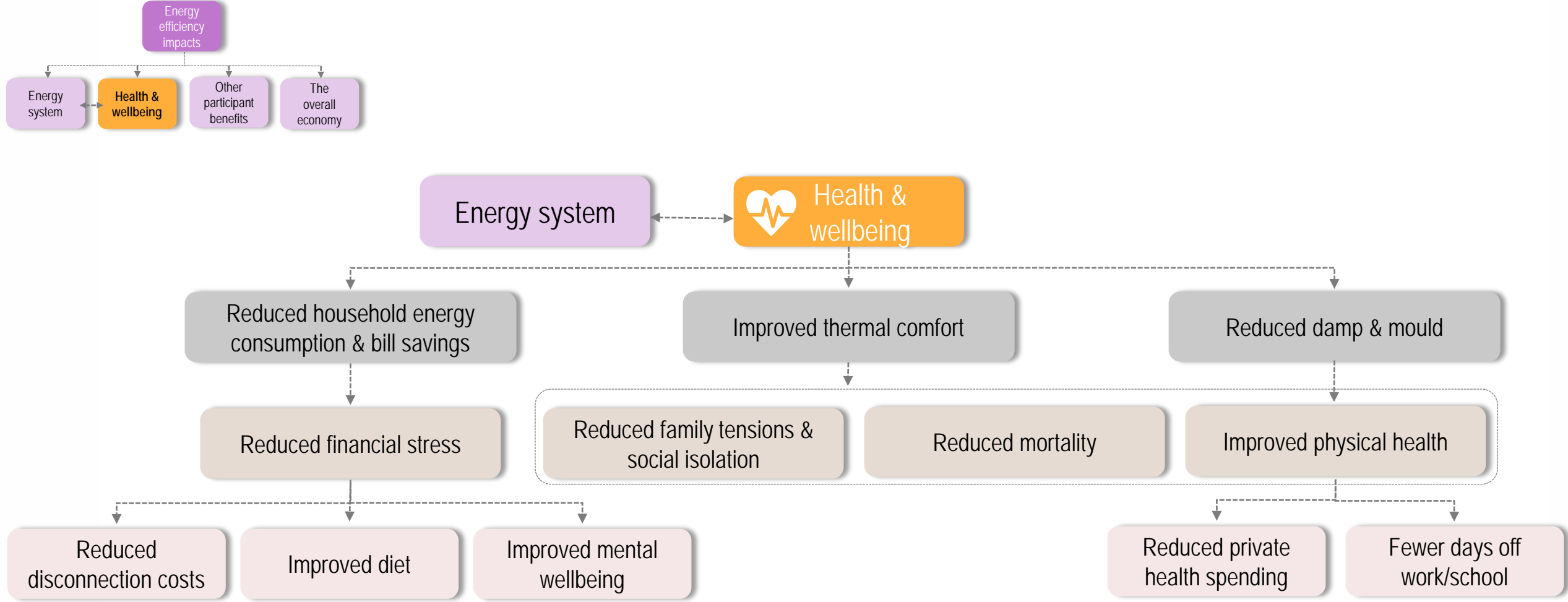
# THE MULTIPLE IMPACTS OF ENERGY EFFICIENCY

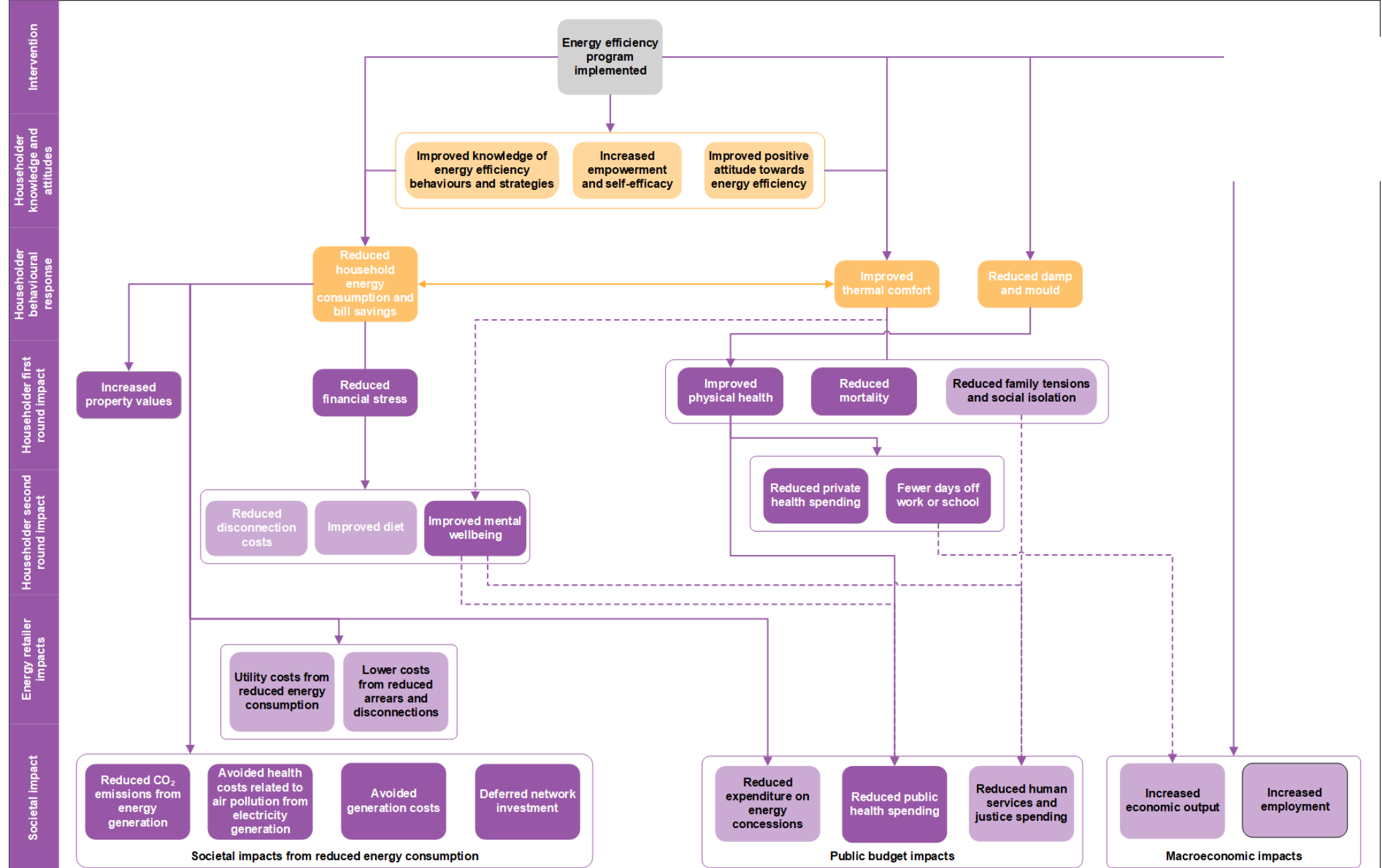


# ENERGY SYSTEM IMPACTS



# HEALTH AND WELLBEING IMPACTS





# PRINCIPLES FOR ASSESSING THE MULTIPLE IMPACTS OF ENERGY EFFICIENCY



## Best practice assessment principles

Evidence of causal link

Materiality of impact

Consistency with public and corporate objectives

Comprehensiveness

Consistency with existing framework

Quantification

## Principles for quantification of impacts

### Robust methodology

- Individual treatment
- Fit for purpose
- Transparency

### Robust estimates

- Symmetry
- Avoid double counting
- Consider the rebound effect
- Measure marginal, not average, impacts
- Consider the incidence of impacts

### Transferability of estimates

# ENERGY SYSTEM IMPACTS

	Evidence of causal link	Materiality of impact	Robust methodology	Robust estimates	Transferability of estimates
1. Reduced energy consumption & bill savings	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓!
2. Utility costs from reduced energy consumption	✓✓✓	✓	✓✓✓	✓✓✓	✓!
3. Lower retailer costs from arrears & disconnections	✓✓	✓✓	✓	✓	✗
4. Societal impacts:					
• Reduced CO2 emissions	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓!
• Avoided generation costs					
• Deferred network investment					
• Avoided health costs from air pollution	✓✓	✓✓	✓✓	✓✓	✓!

 Caution: refer to the report before applying this information

 Care should be taken to only transfer estimates from comparable programs/contexts.

# ADDITIONAL AREAS OF RESEARCH



## Householder knowledge, attitudes & behaviour

- Establish common framework & survey instrument to measure change
- Explore linkages to other impacts

## Improved thermal comfort

- Develop harmonised indicators & validated survey instruments to measure change
- Investigate nature & extent of problem in Australia (both warmer & colder climate zones)

## Reduced damp & mould

- Develop harmonised indicators & validated survey instruments to measure presence & severity of damp & mould and impact of energy efficiency interventions
- Investigate nature & extent of problem in Australia

## Increased property values

- Further research in Australian context using existing methodologies