

Residential Sustainability

6 Star Energy Standard:

Triple Bottom Line Benefits for Victoria

Building Commission

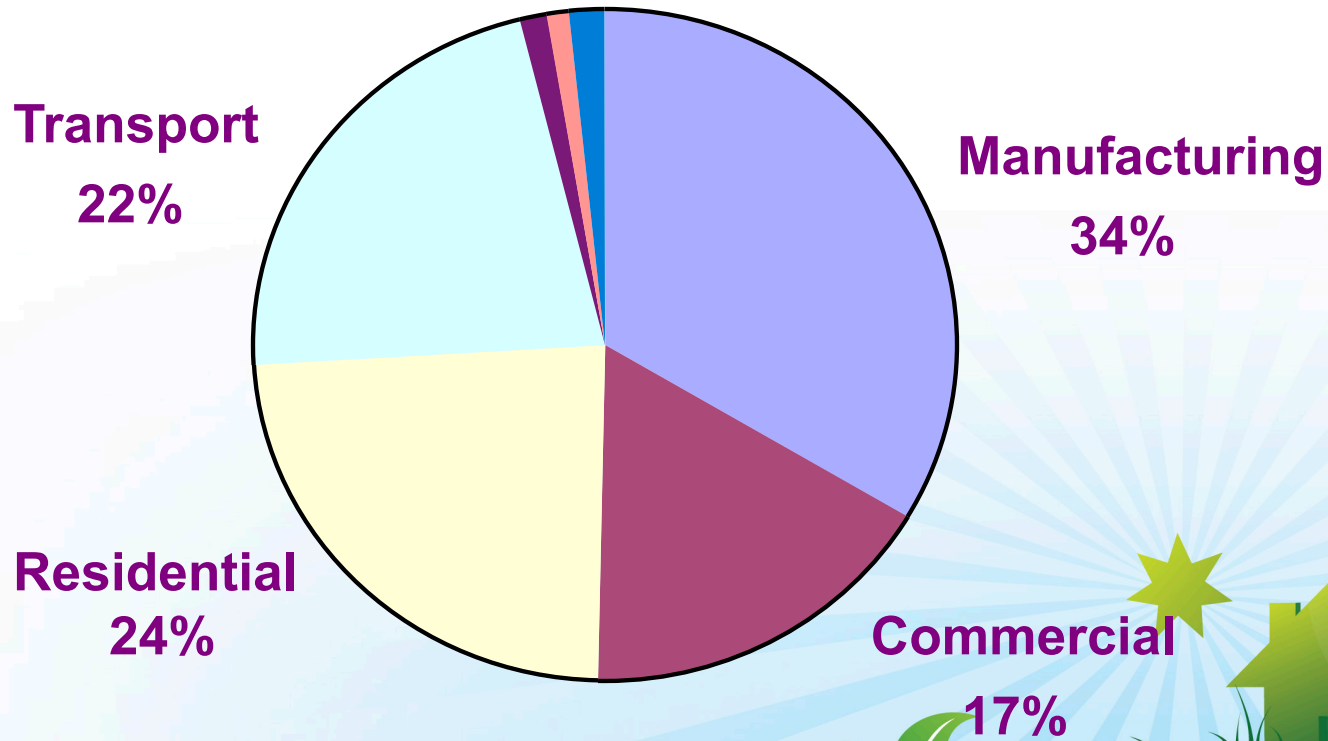


Plumbing
Industry
Commission

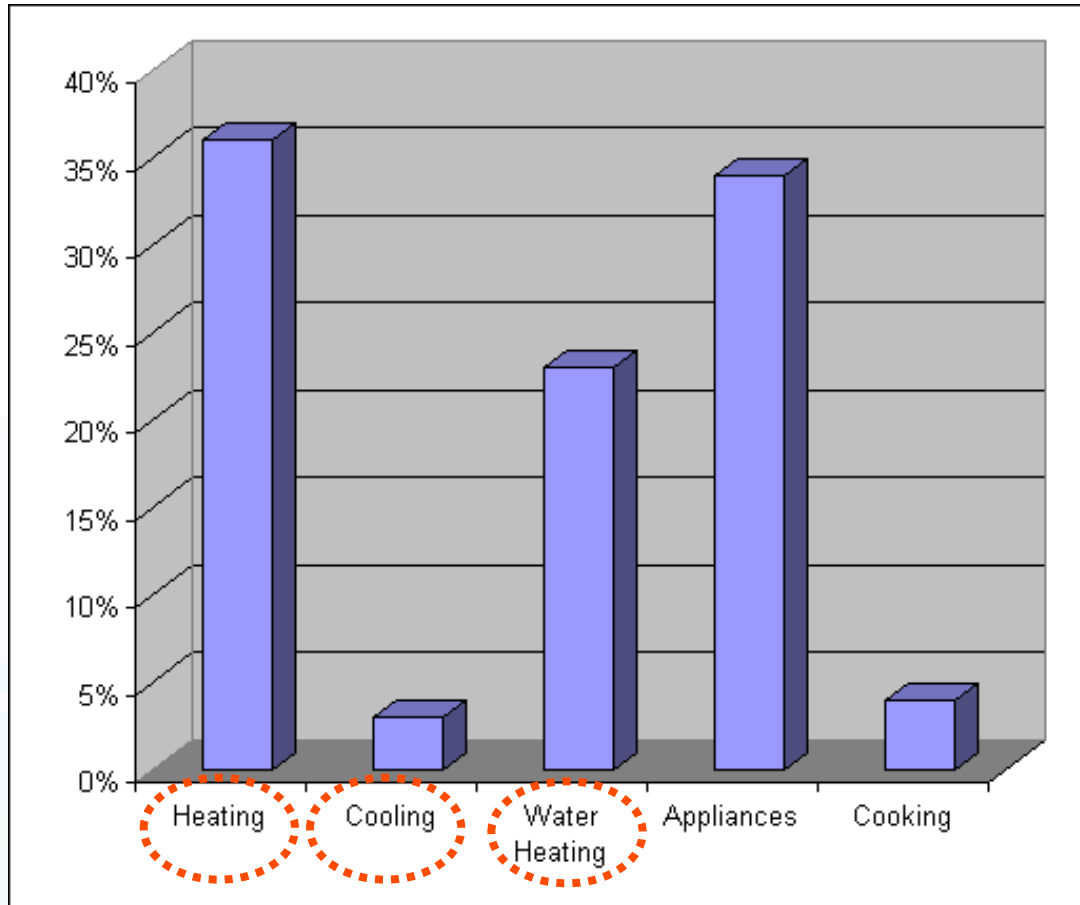
Buildings and Climate Change: Need for effective building standards

- Australia - world's highest greenhouse emissions per capita
- Recognition that increasing building energy efficiency offers **best opportunities** for cost effective abatement
- Little improvement in building energy efficiency since 1991, when insulation regulations first introduced in Victoria
- Building standards must be combined with other initiatives: industry training, consumer information

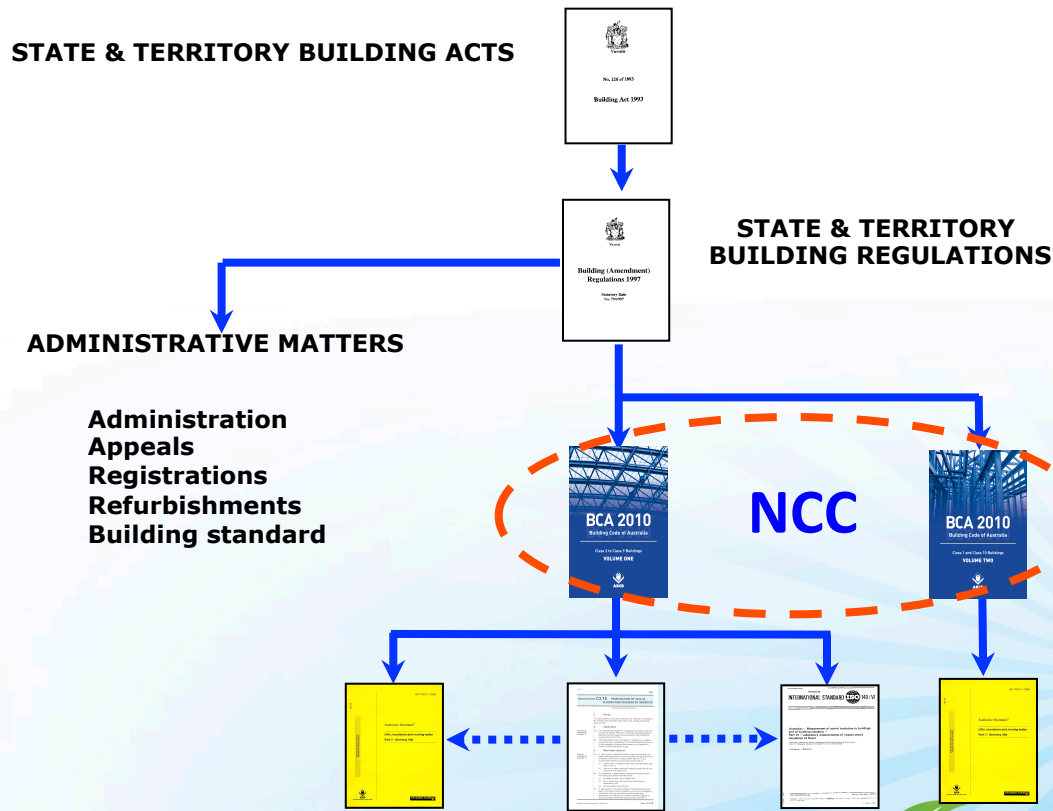
Victorian Greenhouse Emissions



Residential Energy Use



National Construction Code [NCC]



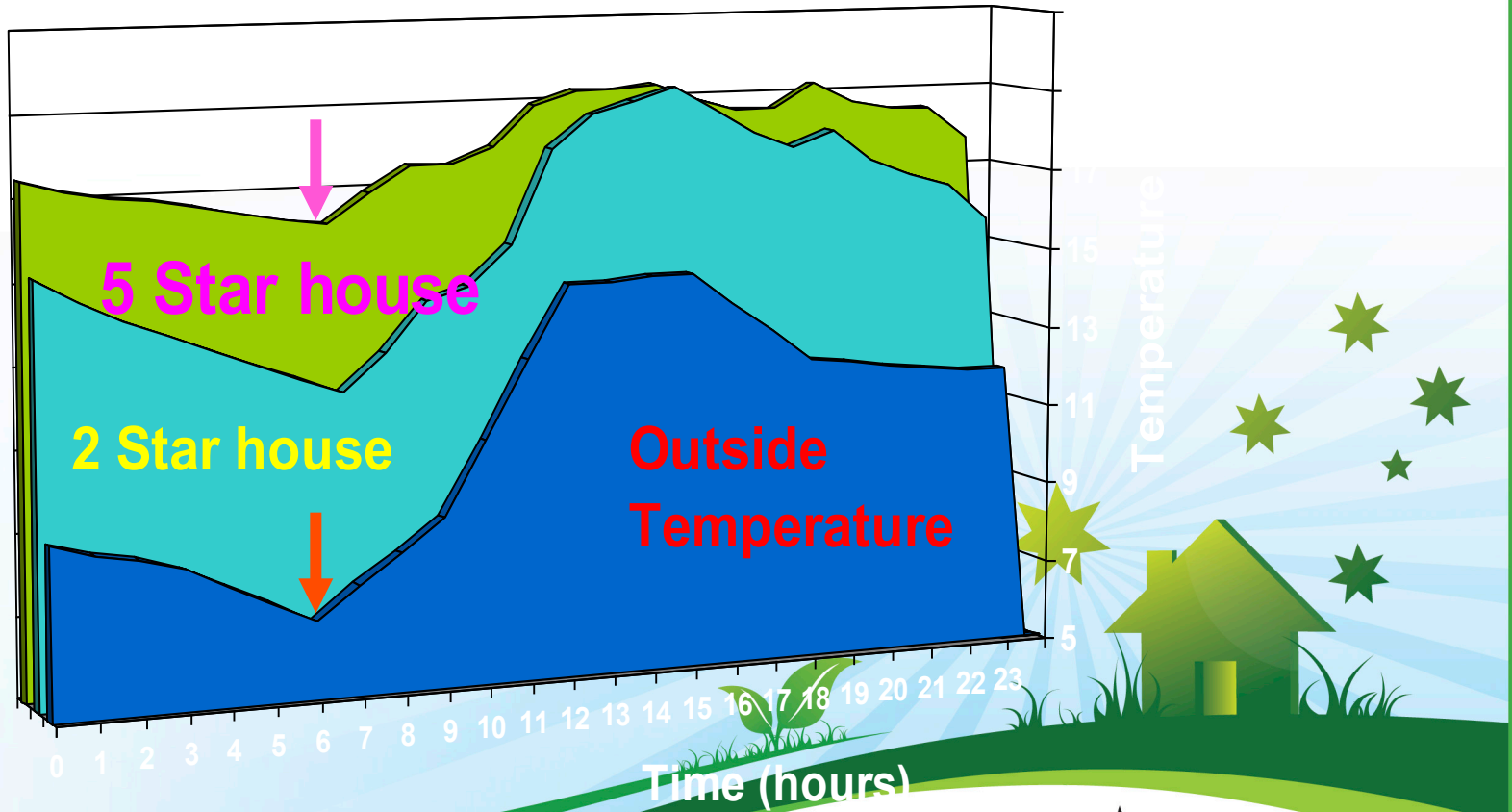
Regulatory Impact Assessment

- Transparent public process
- Detailed economic analysis of proposed regulations
- Residential energy efficiency standards deliver:
 - *Economic growth, job creation for Victoria*
 - *Cost savings, improved comfort for home owners*
 - *Significant greenhouse gas abatement*
 - *Reduced pressure on power infrastructure*

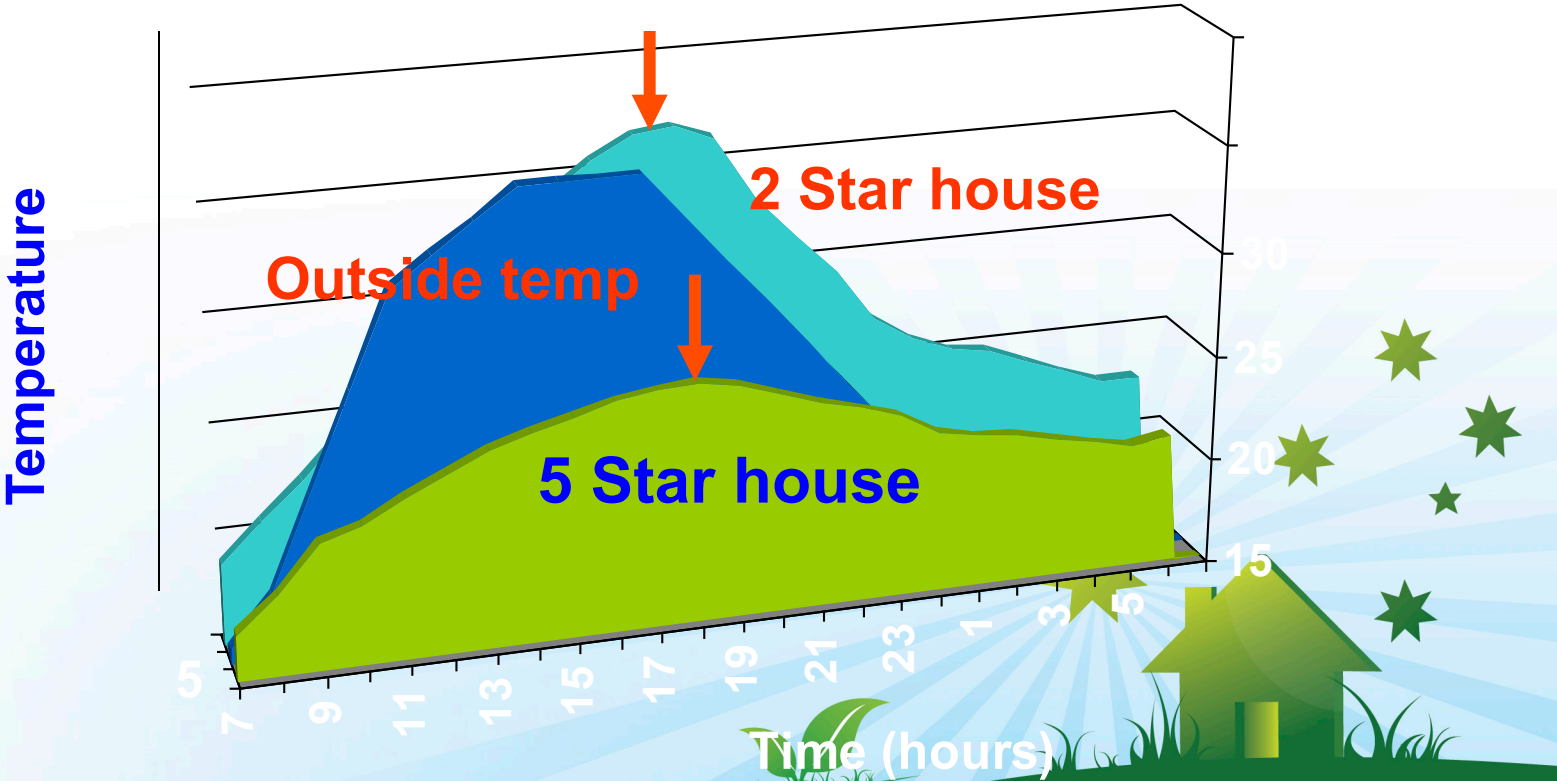
Victorian Energy Rating System

- Sophisticated computer software used to assess compliance with National Building Code [1 – 10 Star Energy Rating Scale]
- Rating tool encourages innovation, assists designers to optimize building solutions for consumers
- Software covers all Australian climate zones [70 options] and construction techniques
- Star rating informs consumers of choices **beyond** regulatory minimum standard [6 => 10 Stars]
- Rapid industry acceptance of these flexible, performance based requirements

5 Star home: warmer in winter



5 Star home: cooler in summer



Q & A



Building Commission



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Industry
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Case Study



Henley Zero Emissions House



Henley ZEH: 8 Star Energy rating *plus*

- Good design orientation and shading
 - Brick veneer construction and insulated waffle pod
 - High performance roof and wall insulation
 - Double glazing to all windows & sliding doors
 - Advanced home sealing to significantly reduce air leakage
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- Zoned Inverter ducted heating and cooling system
 - Energy efficient lighting & appliances
 - Solar hot water system
 - Smart household energy management system
 - Three 1,000 litre water tanks - toilet flushing, garden watering
 - Water recycling system
 - 6 kilowatt solar energy generation