Evaluation of a lighting market transformation program in Australia: Outcomes and Attributions

Dr George Wilkenfeld, George Wilkenfeld & Associates

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Presented by Charles Michaelis

The policy

- Phase out from 2009
- Seen as a ban on incandescent lamps
- But:
  - » Mains voltage halogen (mvh) could pass
  - » Standards for CFLs
  - » Standards for extra low-voltage converters (ELVCs) for low voltage halogen

Intended effects

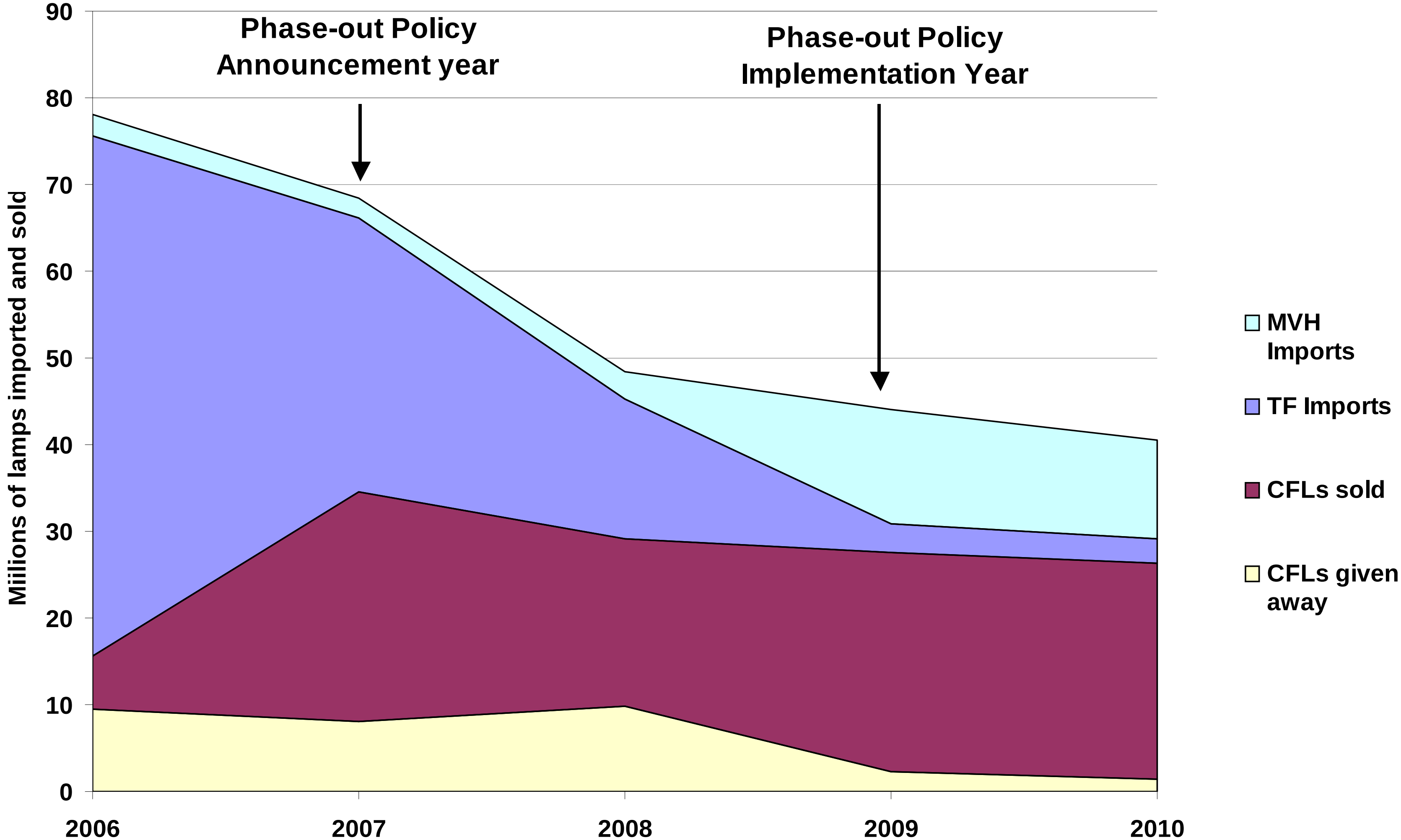
- Force out tungsten filament (TF) lamps
- Increase share of CFLs compared to MVH
- Reduce energy consumption and greenhouse gas emissions
- Reduce costs for lamp buyers

Designing the evaluation

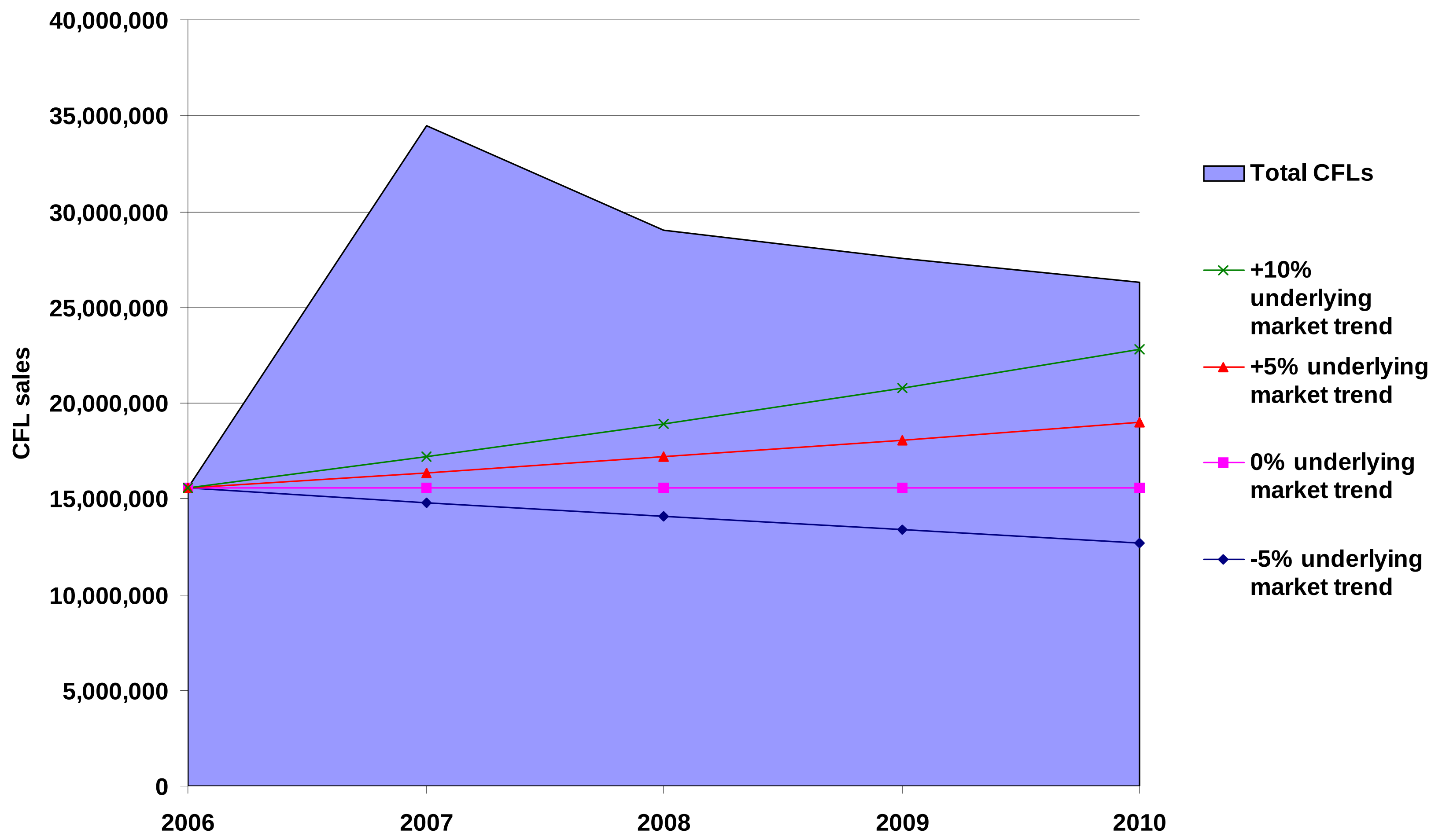
Challenges	Looking for pre-existing trends	Sources of information

• Policy misunderstood
• Possible stockpiling
• MVH new
• No baseline research
• Already strong growth in CFLs
• Free distribution of CFLs
	• Obscured by growth of MVH
	    • MVH more expensive than TF
	    • MVH marketed as energy efficient
	    • Wattage?
		• Customs
		• Free CFL volumes
		• Interviews with suppliers and retailers
		• Regulation Impact Assessment (ex ante view)
		• Consultants

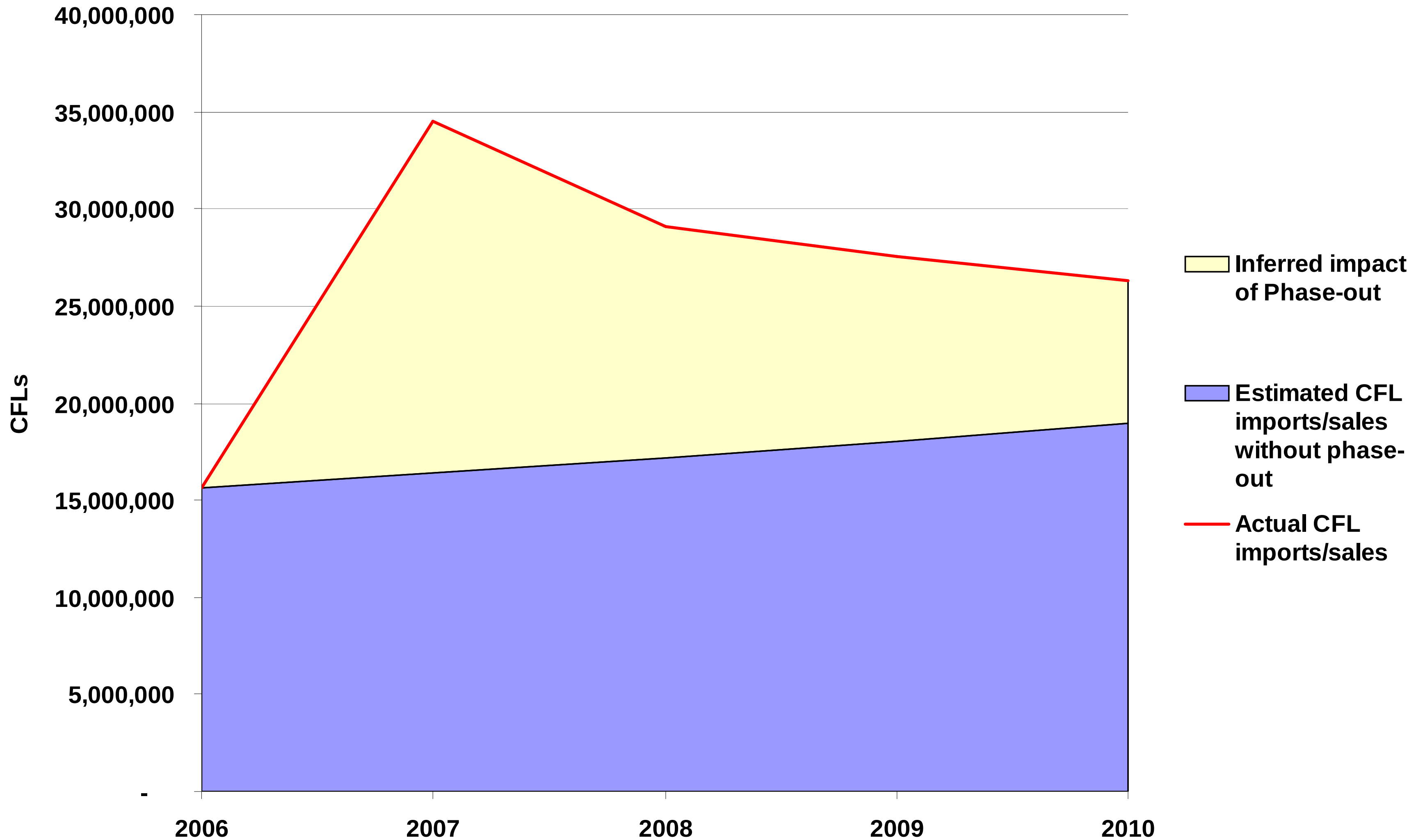
Actual annual GLS lamp sales



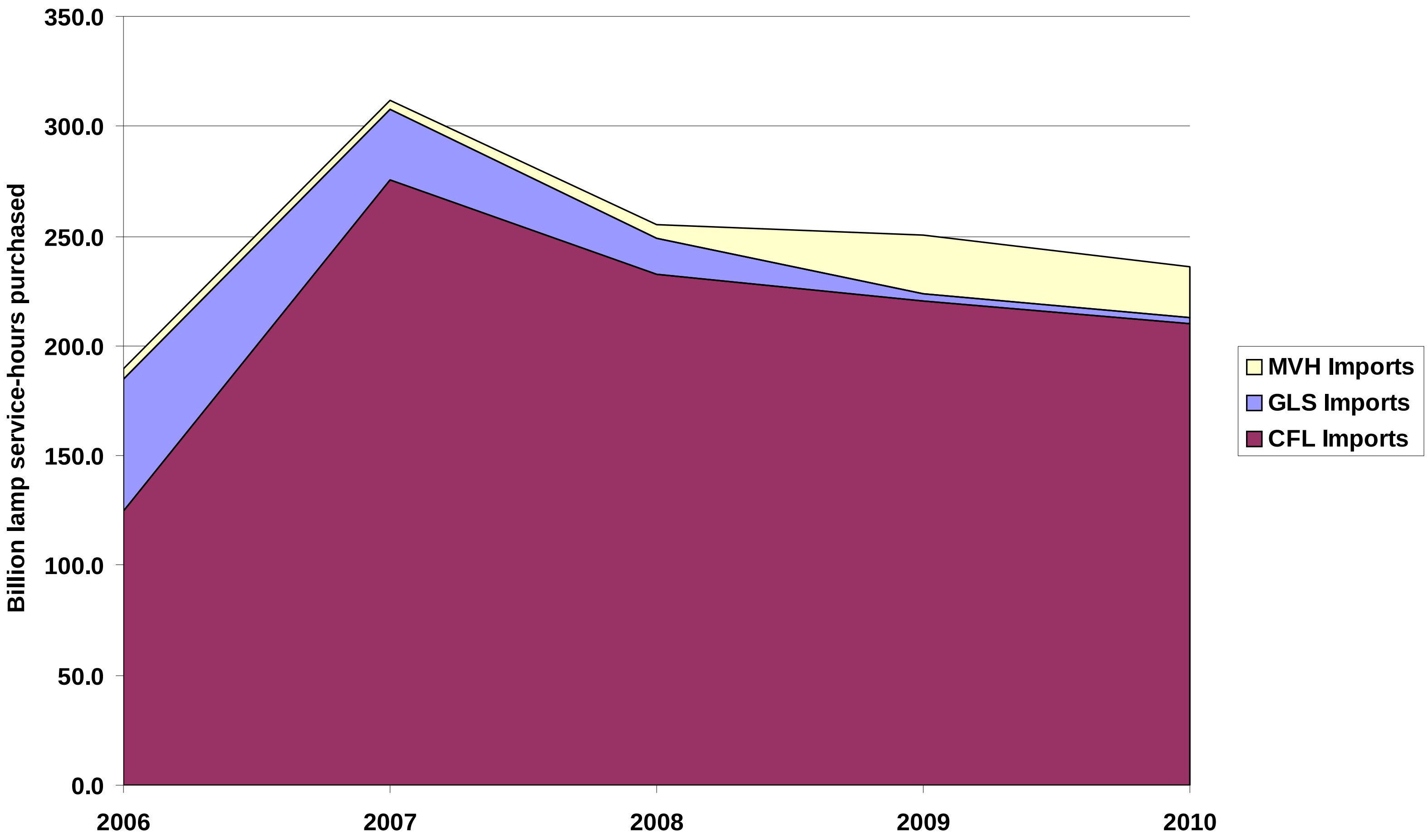
Possible underlying CFL growth rates



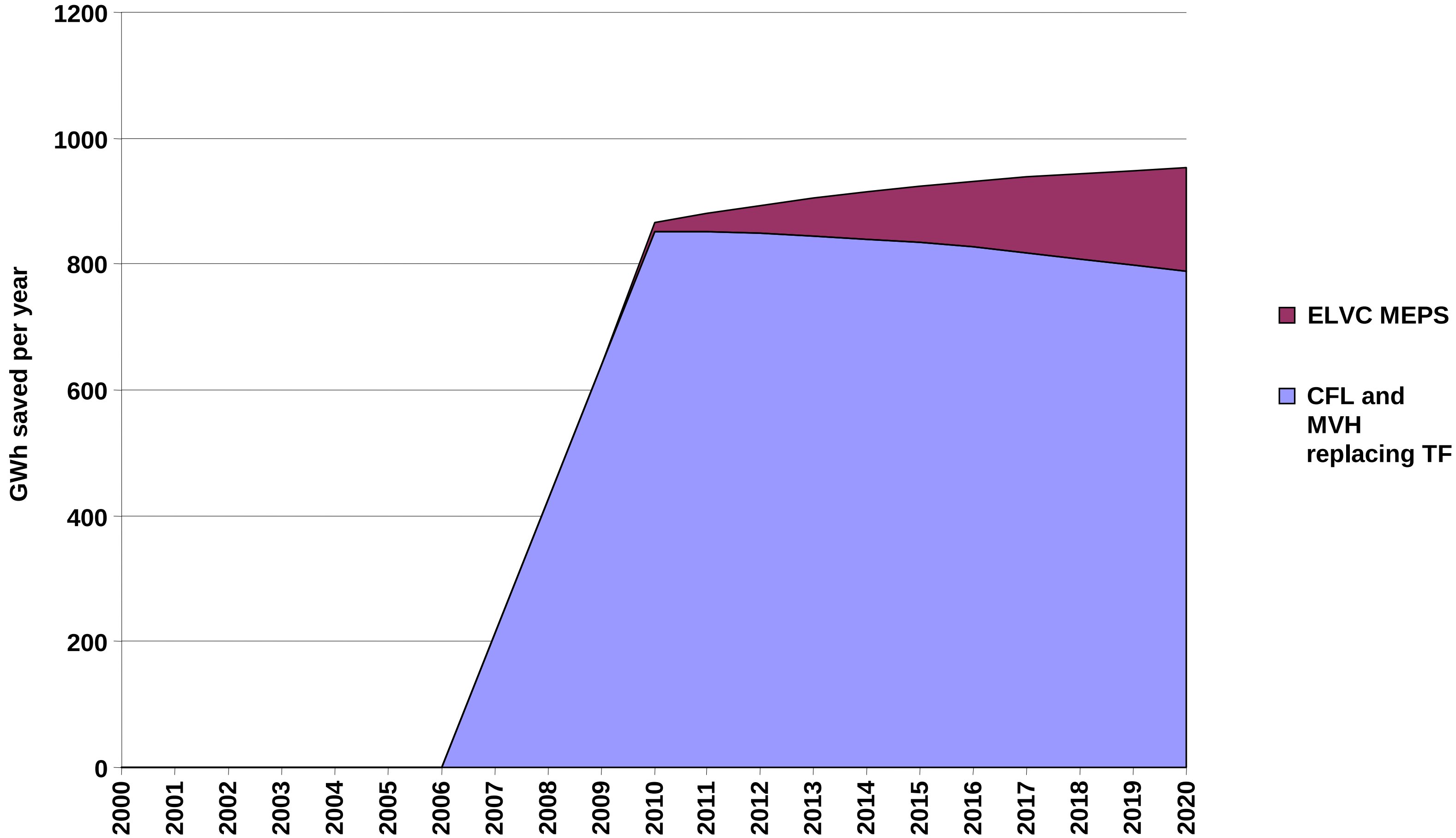
Most probable: 5% underlying



Lamps-hours embodied in sales



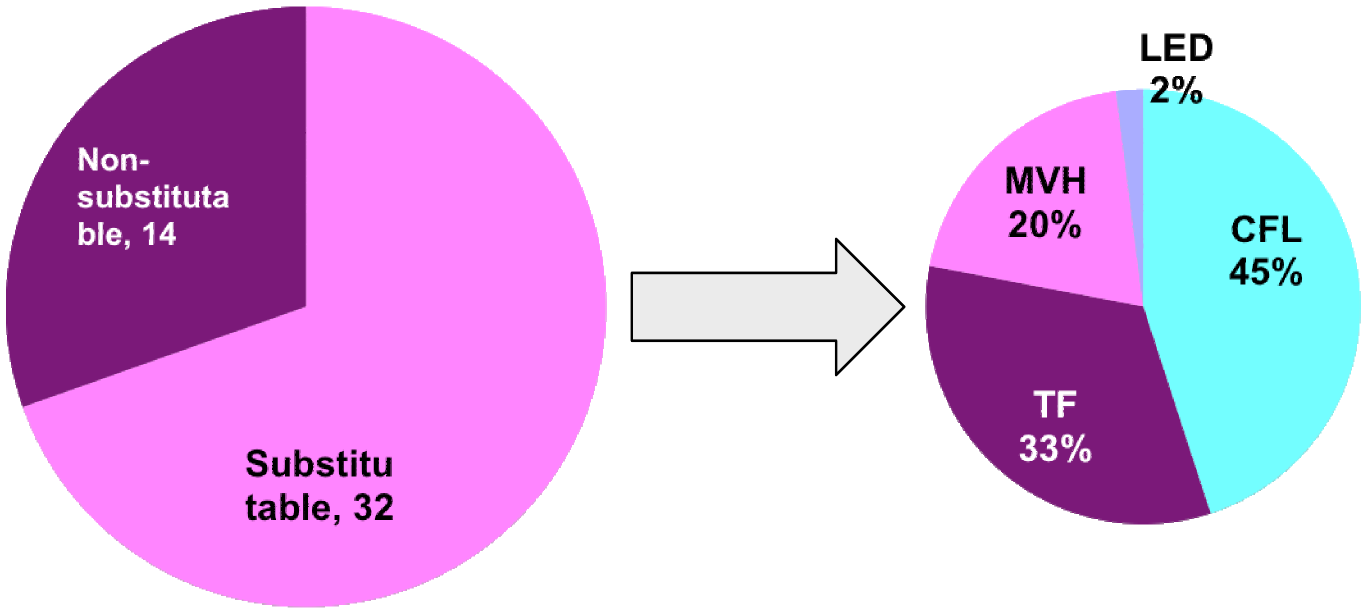
Estimated energy saving from Policy



Is CFL market now saturated?

- Mature technology
- Have gone through falling price, rising quality curves
- All lamp buyers in Australia know about them
- Supplying 88% of lamp-hours in standard-socket GLS lamps since 2007 - not much room for further growth

Other indicators of saturation



Conclusions

- Major shift in GLS lighting market in Australia between 2006 and 2010
  - » Tungsten filament share of the GLS lamp market fell from 77% to 7% of sales
  - » CFL and MVH share of the market increased
- ‘Phase-out of inefficient lamps’ policy contributed to the change; so did other factors
- Saving around 850GWh/year

- CFLs may be reaching saturation
- Time to focus policies on other types, eg LEDs

Last Word

- The author acknowledges assistance of DCCEE with access to data, but analysis and conclusions are author's alone
- For further questions: geosanna@ozemail.com.au