

# Australian Minimum Energy Performance Standards & Testing: Televisions

*Presentation by*

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**International Workshop: “Measuring and Reducing  
Television Energy Use”**

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# Overview



- ❖ Australia – Energy Standards (MEPS) Framework
- ❖ TVs – Australia research and regulatory activity
- ❖ Recent TV Tests
  - ❖ Test Method
  - ❖ Results - preliminary
- ❖ Future Tasks/options
- ❖ Australian industry representative perspective

# Energy Consumption



- ❖ Estimated at 1,055 GWh pa in 2003
  - ❖ ~ 5% of residential
  - ❖ Greater than clothes washer (1%), clothes dryer (1%) or dishwasher (1%)
  - ❖ Less than Freezer (6%)
- ❖ Average TV on mode power use (2005)
  - ❖ CRT – 85W
  - ❖ LCD – 92W (was 50W in 2003)
  - ❖ Rear projection – 162W
  - ❖ Plasma – 287W

# Australia – Energy Standards (MEPS) Framework

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- ❖ State & Federal system
  - ❖ National Appliance and Equipment EE Program
    - ❖ Fed Gov – Australian Greenhouse Office
    - ❖ State Gov - Energy Ministries + Regulators
    - ❖ State laws – same regulations
  - ❖ MEPS & Labelling for a range of domestic and commercial appliances
- ❖ Regulations for efficiency are widely supported by Australian industry since they create uniform requirements for all competitors in the market

# MEPS Policy framework



- ❖ Product selection based on consideration of potential & opportunities
  - ❖ Match the most stringent regulated levels in force in a major country or:
  - ❖ More stringent only with Australian industry support
- ❖ Use of Australian Standards
  - ❖ International harmonisation wherever feasible
  - ❖ Government works closely/cooperatively with industry
- ❖ Efficiency levels typically reviewed on a 4-5 year cycle
  - ❖ Reflect improvements in the efficiency of products
  - ❖ Facilitate industry planning
- ❖ Standards include:
  - ❖ MEPS levels
  - ❖ 'High Efficiency' level, intended to signal the next MEPS level to manufacturers

# TVs – Australia research and regulatory activity

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- ❖ Product Targeted for MEPS - 2004
  - ❖ Report on Test method + MEPS levels + Energy Labelling
  - ❖ All TVs rated on same scale – Use Energy Efficiency Index
  - ❖ Accepted industry and International feedback in late 2004 – to look at new test method
- ❖ Research on Method and Standards – 2005
  - ❖ Standards Sub Committee – TE-001-03
  - ❖ Establish new test method for all TV screen technology
  - ❖ Working with EU/UK and USA
  - ❖ Desire for international test method comparing all screen types

# Recent TV Tests: Method



- ❖ Simple Method required
  - ❖ Reliable, representative of use and repeatable
  - ❖ Use for all TV screen types
  - ❖ Possible to use in stores measurements
- ❖ Input /Output
  - ❖ Chose input signal – CCIR-16 (International Radio Consultative Committee; now ITU-T)
  - ❖ No Audio
- ❖ Screen Setting
  - ❖ “Out-of-box” setting finally chosen
  - ❖ Measured various pre-sets and 75% B+C setting
- ❖ Power measured over 1 minute (integrated)
- ❖ Standby measured

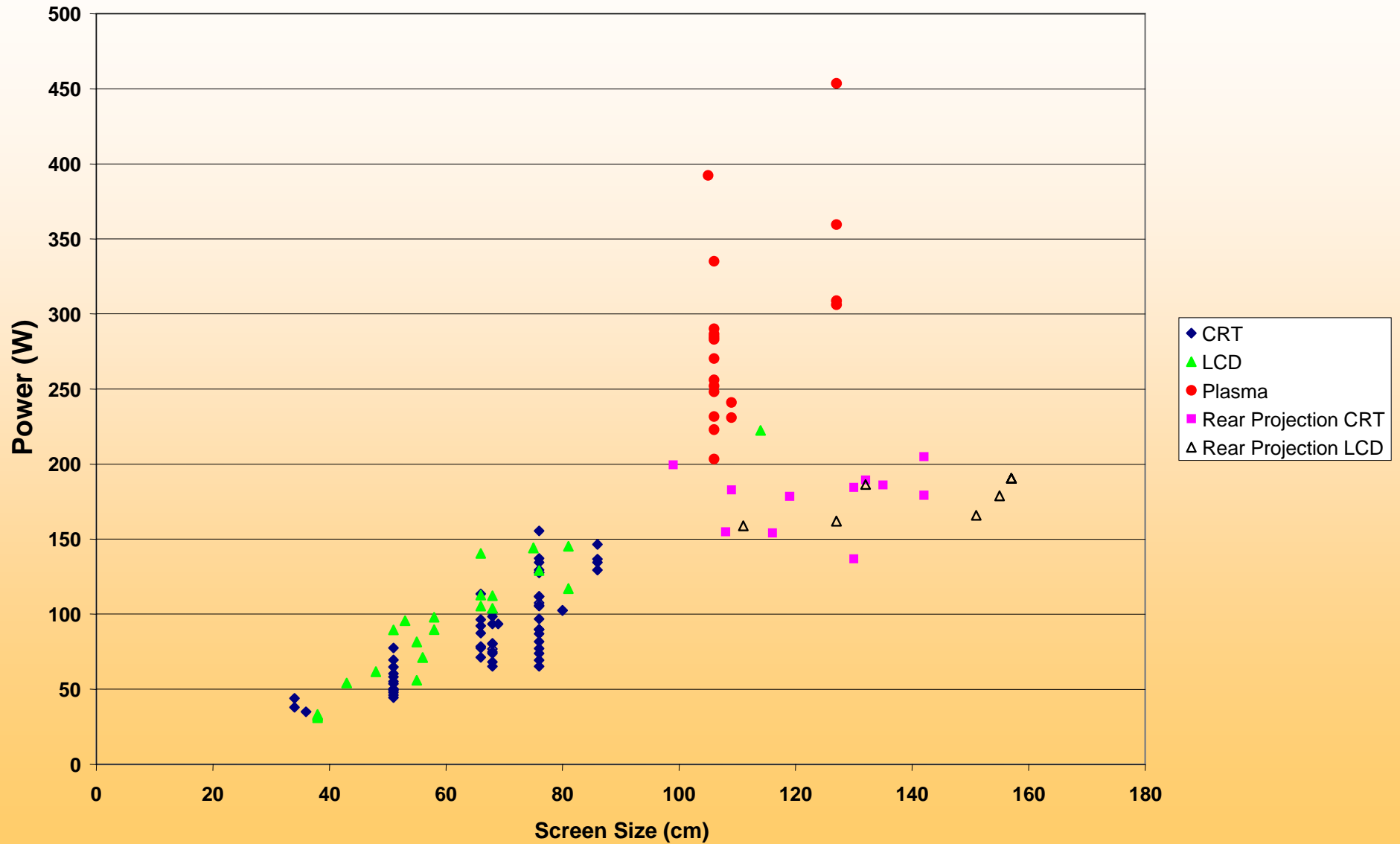
# Recent TV Tests: Survey Results



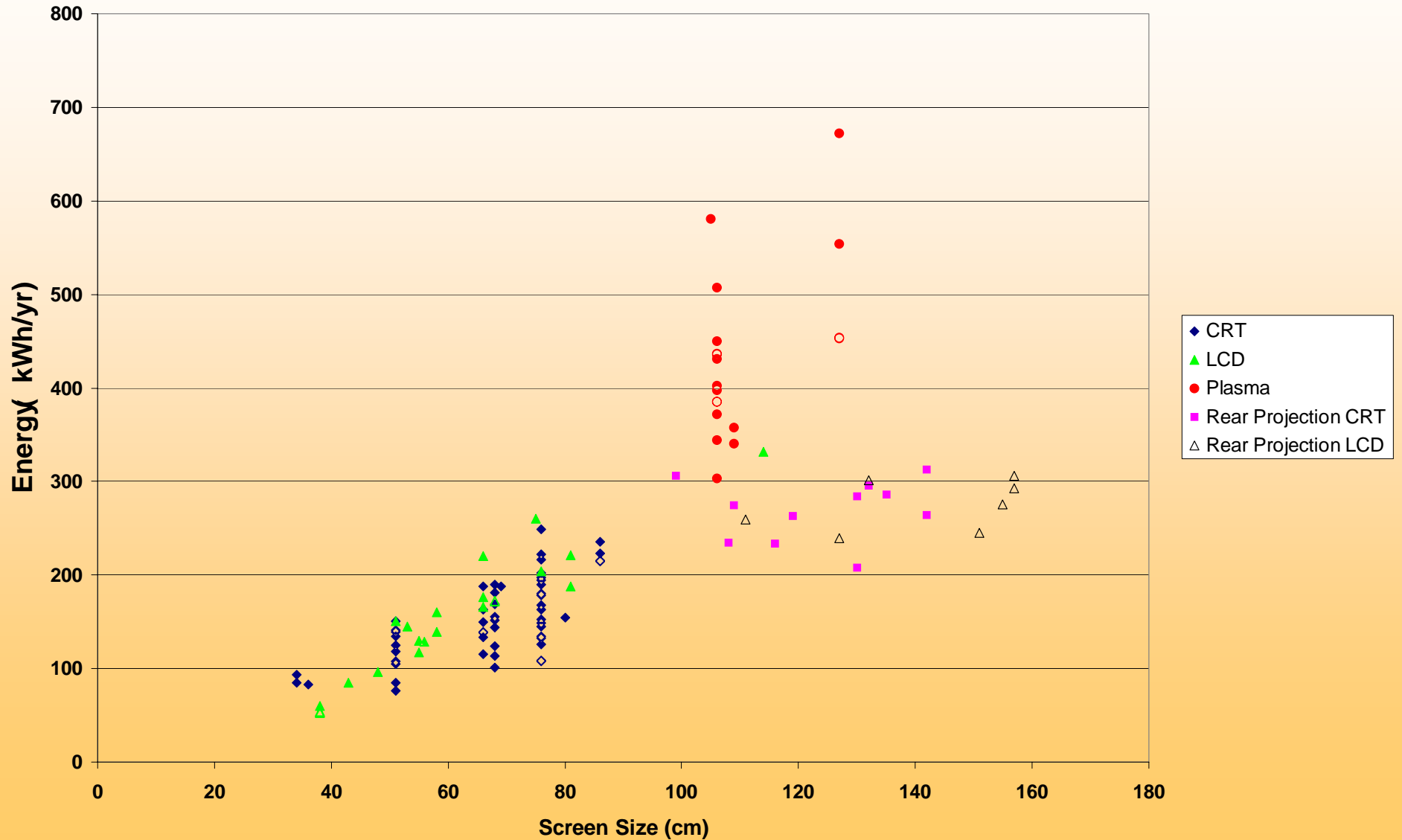
- ❖ TV Power Use
  - ❖ On mode only
- ❖ TV Energy Use - On & Standby mode
  - ❖ Power – Standby x 20hrs, In-use x 4 hrs
- ❖ TV Energy Index - On & Standby mode
  - ❖ Energy/year per m<sup>2</sup> of Screen Area
- ❖ TV Energy Use - On & Standby mode
  - ❖ With an imaginary MEPS line



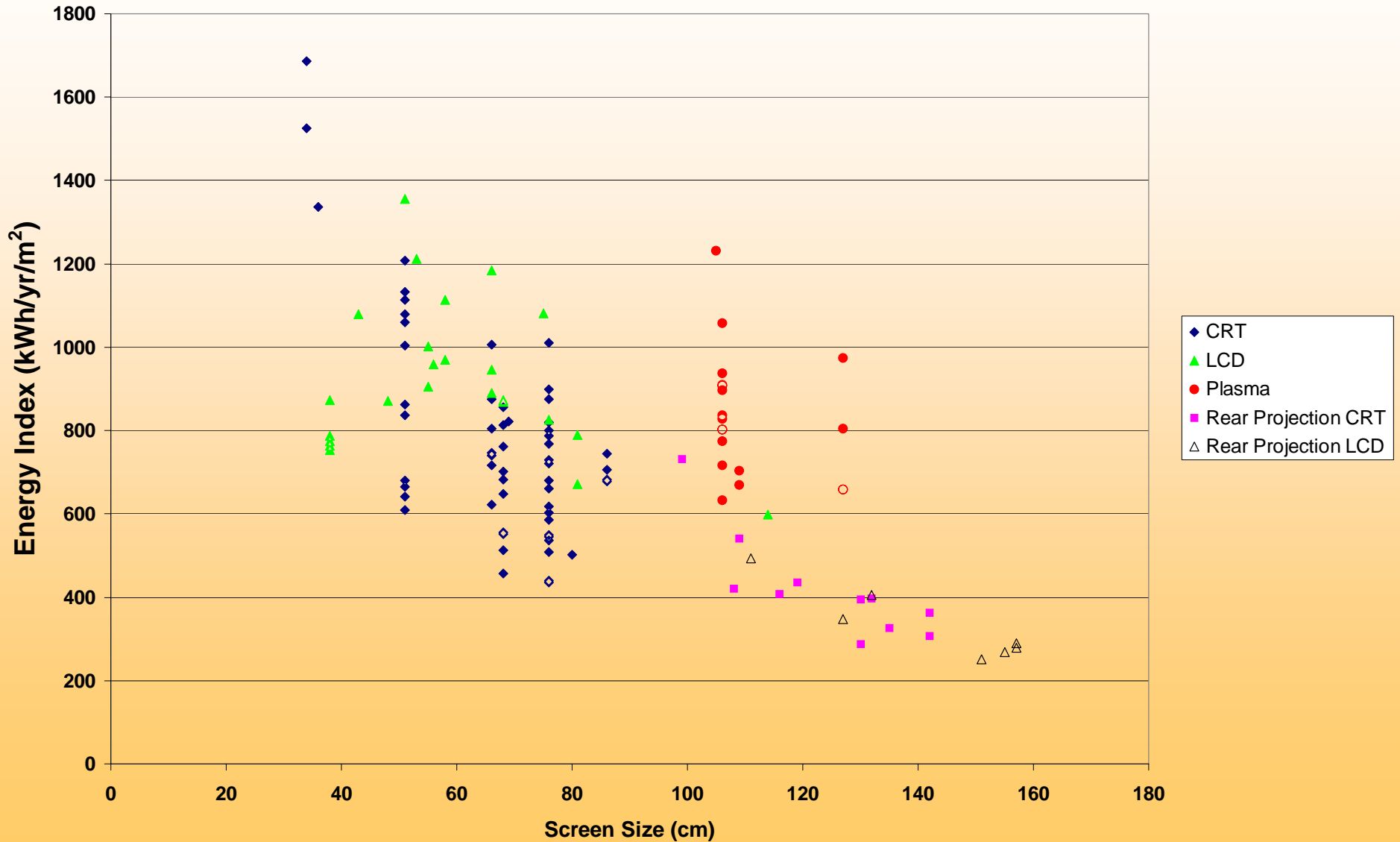
# TV Power Use - On mode



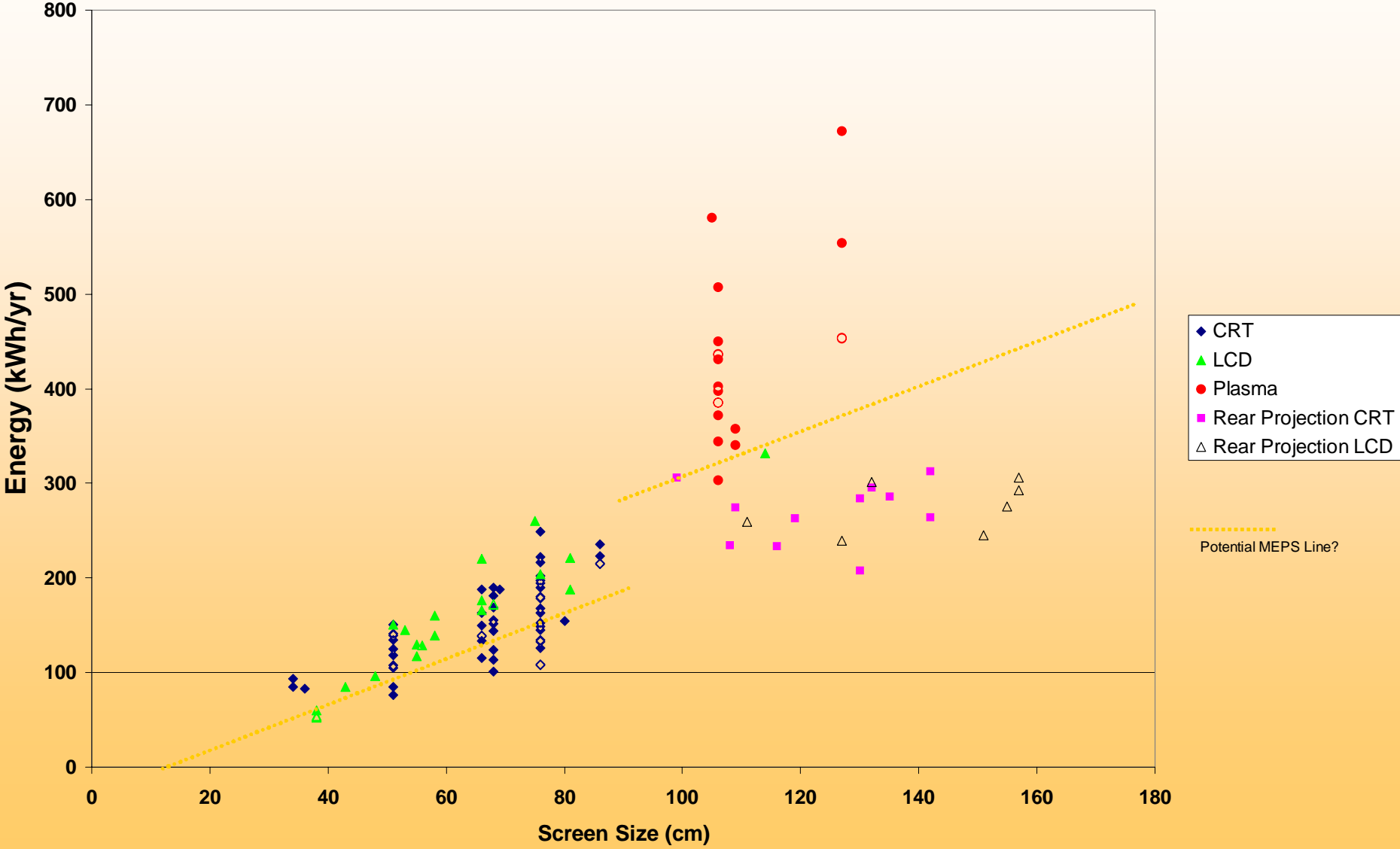
# TV Energy Use - On & Standby



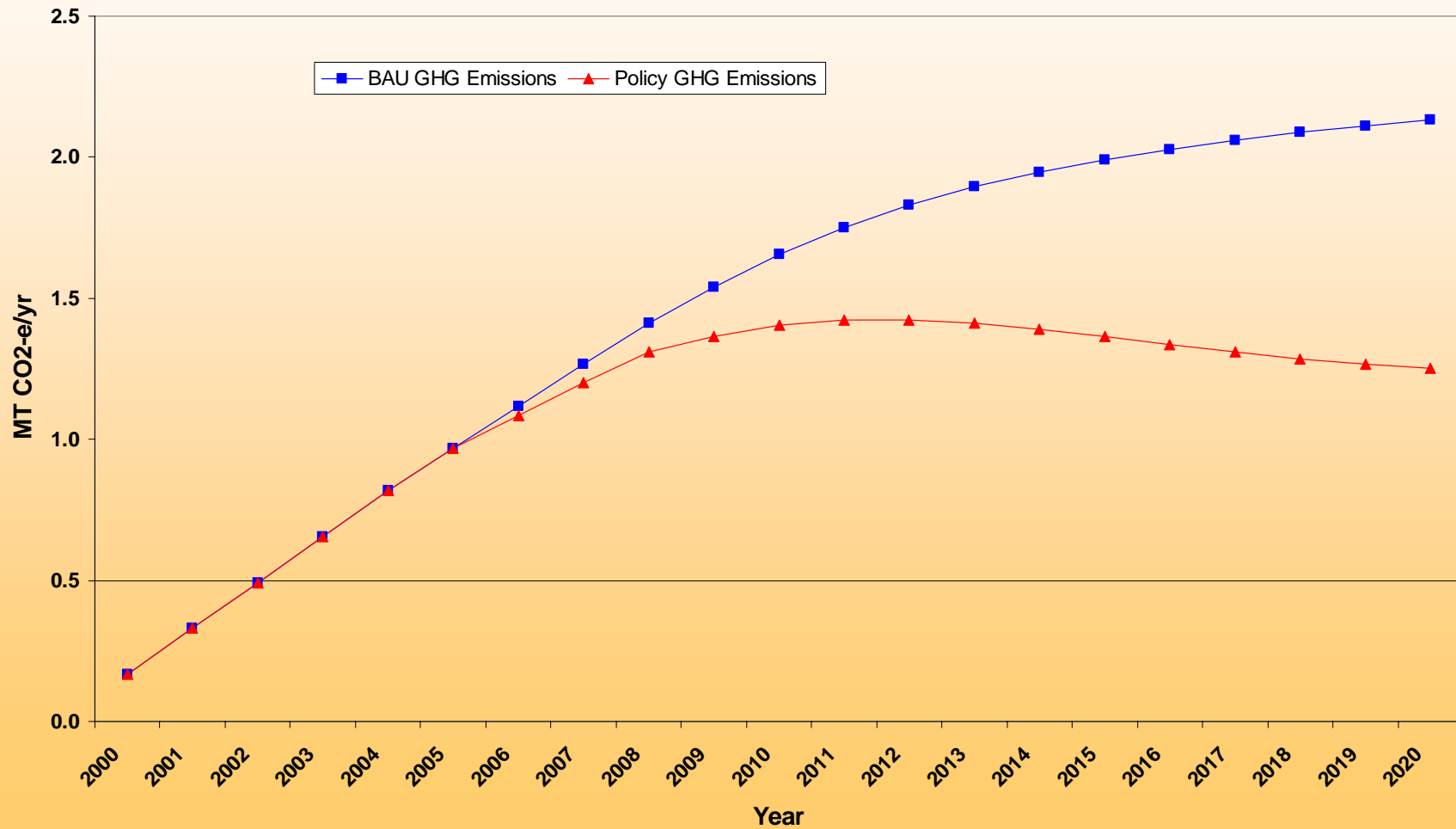
# TV Energy Index - On & Standby



# TV Energy Use - On & Standby With Imaginary MEPS



# Impact of MEPS – GHG reduction



# What Next? From Australia's Perspective

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- ❖ Create an Australian test method
  - ❖ Treat all TV screen types comparatively
  - ❖ Developed with international consensus
- ❖ Determine MEPS levels
  - ❖ Based on market characteristics or
  - ❖ Other economy regulations
    - ❖ Currently China and Japan (CRT only)

# Further information



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- ❖ Keith Jones – Standards Committee & Australian industry
  - ❖ Other slides with further information for later in the workshop if required