

AUSTRALIA'S POLICY PLANS FOR HOME ENTERTAINMENT PRODUCTS AND 1 WATT STANDBY

APEC INTERNATIONAL CONFERENCE

Alignment of National Standby Power Approaches

Moving Towards 1 Watt and Beyond

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Summary

- Home Entertainment Products
 - Product Profile (Sept 2010)
 - Targeting all modes (in-use, passive and active)
 - Total Energy Consumption approach
 - <http://www.energyrating.gov.au/library/details201006-hep-product-profile.html>
- Horizontal 1 Watt Standby Policy
 - Objective to implement IEA target of 1 Watt standby
 - Regulatory Impact Statement to be released
 - For all products not covered by existing or planned regulations



HEP Background

- 2002 - *Money Isn't all You're Saving* outlining Australia's Standby Power Strategy 2002–2012.
- 2002 - 2004 – individual product profiles
- 2006 – MEPS for standby mode for all Home Entertainment Products (HEP)
 - Further Cost Benefit Analysis in 2006
- 2007 – 2008
 - Consideration of horizontal 1 Watt standby, including all HEP products
- 2009 to 2010
 - 'in-use' mode included in potential policy options
 - Separate 1 Watt policy action for all other products



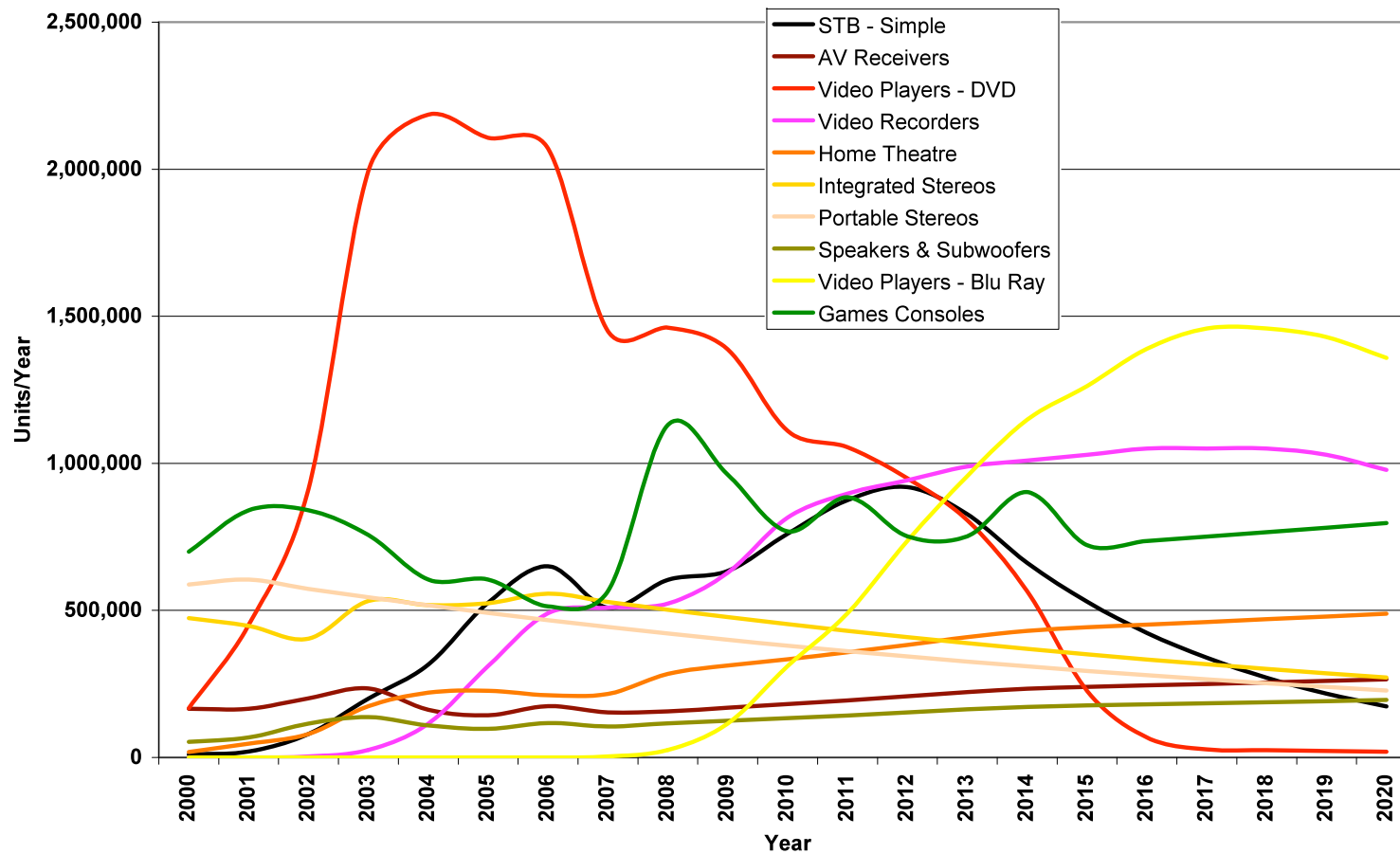
Scope of HEP

- Simple set-top boxes (STBs)
- Complex STBs
- Video Players
- Video Recorders
- Home Theatre System Players
- Home Theatre Recorders
- Audio Amplifiers
- Games Consoles



Annual Historical (2000 – 2008) and Forecast (>2008) Sales

Annual Sales of Equipment by Category: Australia Base Sales Scenario



Estimated Home Entertainment Product Sales from 2000 to 2008 – Australia

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008
STB - Simple	10	20	80	200	316	526	650	509	604
AV Receivers	166	165	201	235	162	143	175	153	157
Video Players - DVD	168	451	912	1,995	2,185	2,107	2,070	1,449	1,461
Video Recorders	0	0	3	26	115	311	491	509	523
Home Theatre	18	47	80	174	220	227	211	216	284
Integrated Stereos	474	447	404	533	518	524	557	529	502
Portable Stereos	588	605	573	545	517	492	467	444	421
Subwoofers	53	68	115	137	109	97	117	105	116
Video Players - Blu Ray	0	0	0	0	0	0	0	3	26
Games Consoles	700	840	840	756	605	605	514	565	1,131
All	2177	2643	3208	4601	4747	5032	5252	4482	5225

Note: All values are (1000s), Source: Gfk Australia, VG Chartz

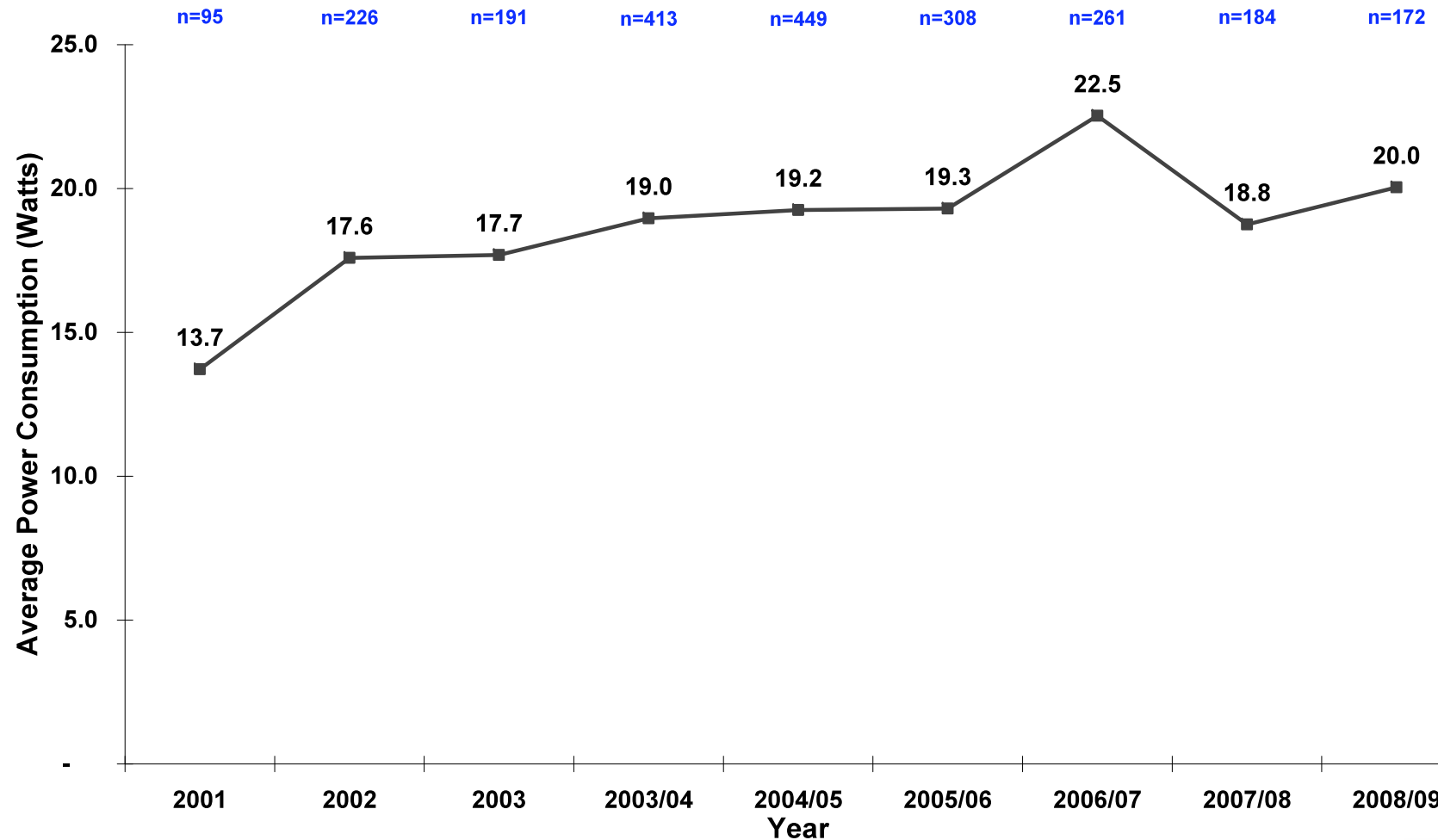


HEP Energy Use

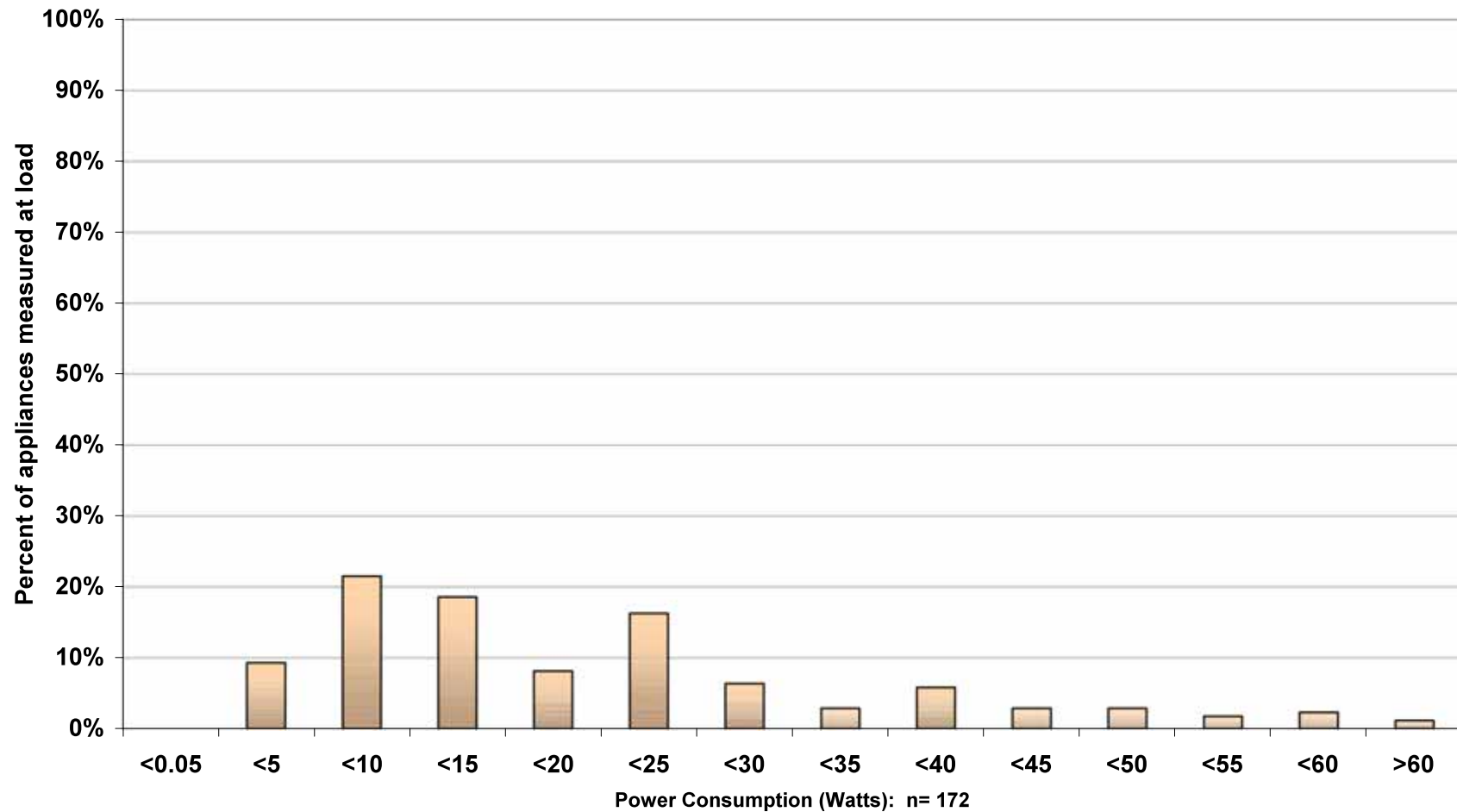
- Energy usage for the Home Entertainment Products is currently estimated to be responsible for at least 5% of household electricity usage making it greater than clothes washers, dishwashers and dryers in Australia.
- The power consumption of all HEP in active standby in 2008/09 ranged from half a watt to over 100 watts, with an average of 20.0 watts. These figures are consistent with those recorded in the previous store surveys. Average active standby has increased slightly over the years



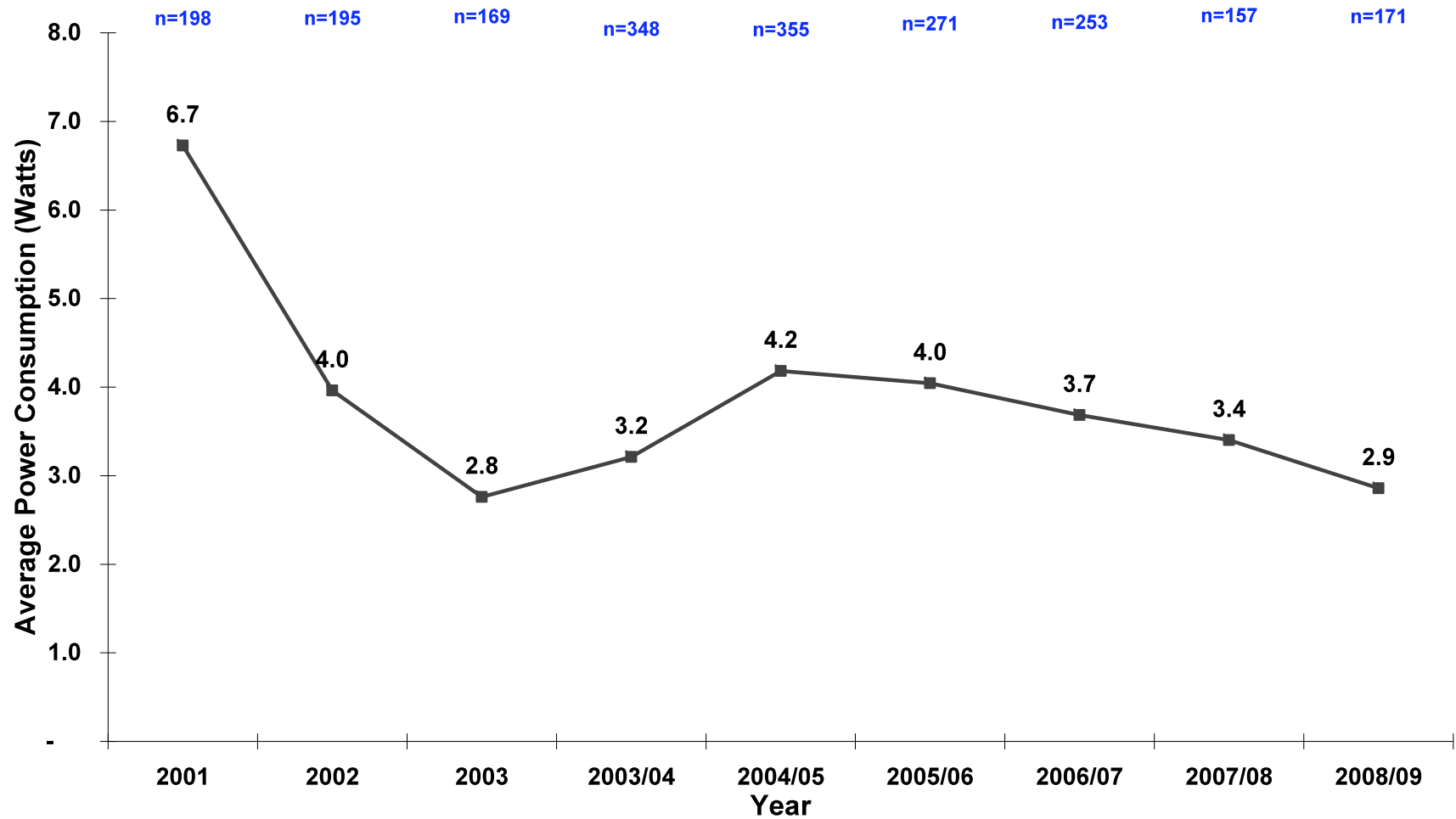
Average Active Standby Consumption: Home Entertainment Products



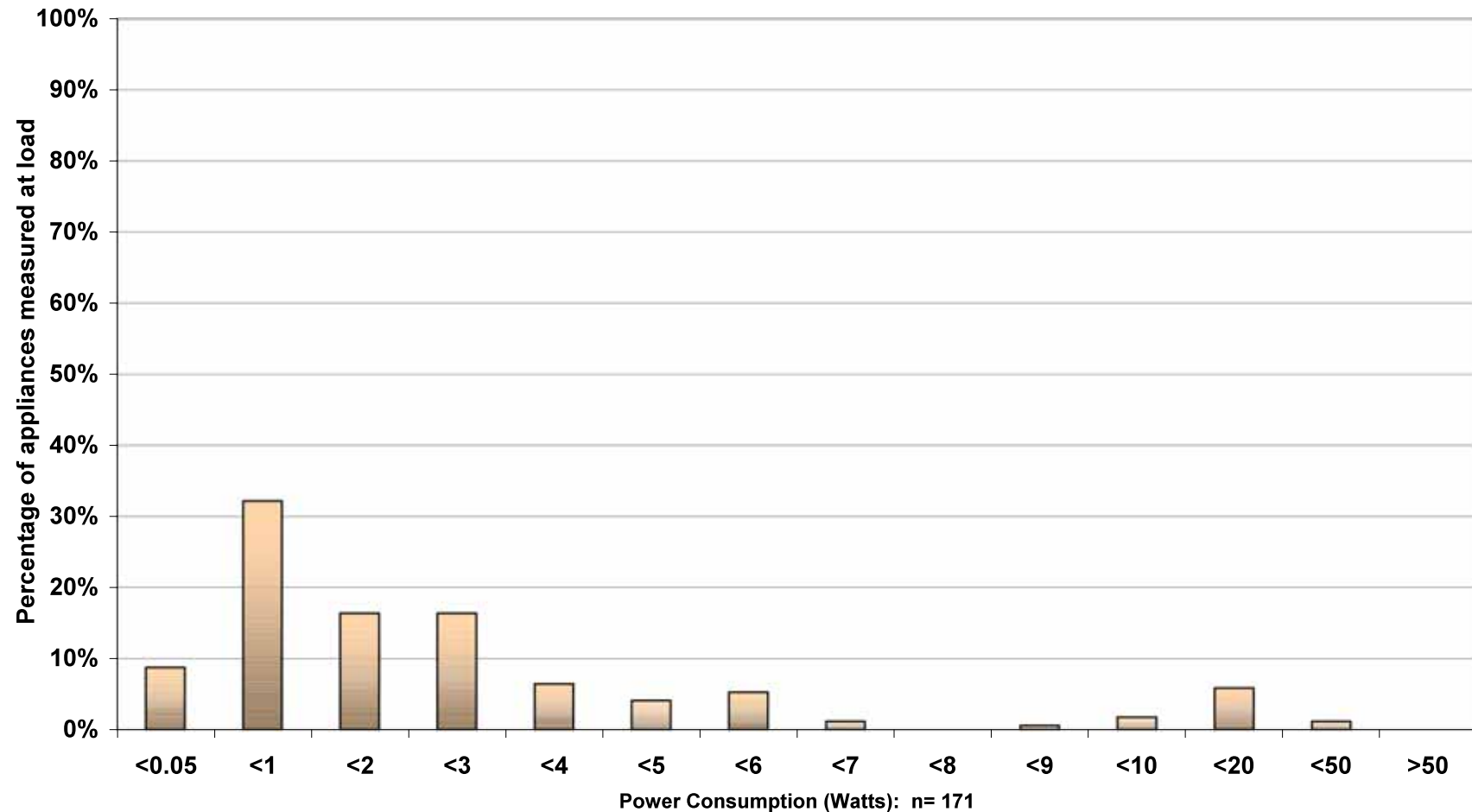
Home Entertainment Products Power Measurements: Active Standby



Average Passive Standby Consumption: Home Entertainment Products



Home Entertainment Products Power Measurements: Passive Standby



Summary of Store Survey Measurement Ranges 2008/09

<i>Home Entertainment Product</i>	<i>Active Standby</i>		<i>Passive Standby</i>		<i>Off Mode</i>	
	<i>Max</i>	<i>Min</i>	<i>Max</i>	<i>Min</i>	<i>Max</i>	<i>Min</i>
AV Receivers	58.6	15.6	1.5	0.1	1.1	0
Home Theatre Systems	78.0	16.7	22.3	0.1	NA	NA
Integrated Stereos	41.9	3.8	16.6	0.1	11.5	0
Portable Stereos	10.3	2.4	3.4	0.9	NA	NA
Sub Woofers & Speakers	22.6	1.4	6.4	0.1	10.5	0
DVD Players	14.4	3.3	5.3	0.1	0.8	0
DVD Recorders	24.6	10.4	21.1	1.2	NA	NA
Hard Disk Recorders	28.7	9.4	15.8	1.3	NA	NA
Blu Ray Players	17.9	14.6	0.6	0.4	NA	NA
<i>Total for all HEP</i>	<i>78.0</i>	<i>1.4</i>	<i>22.3</i>	<i>0.1</i>	<i>11.5</i>	<i>0.0</i>

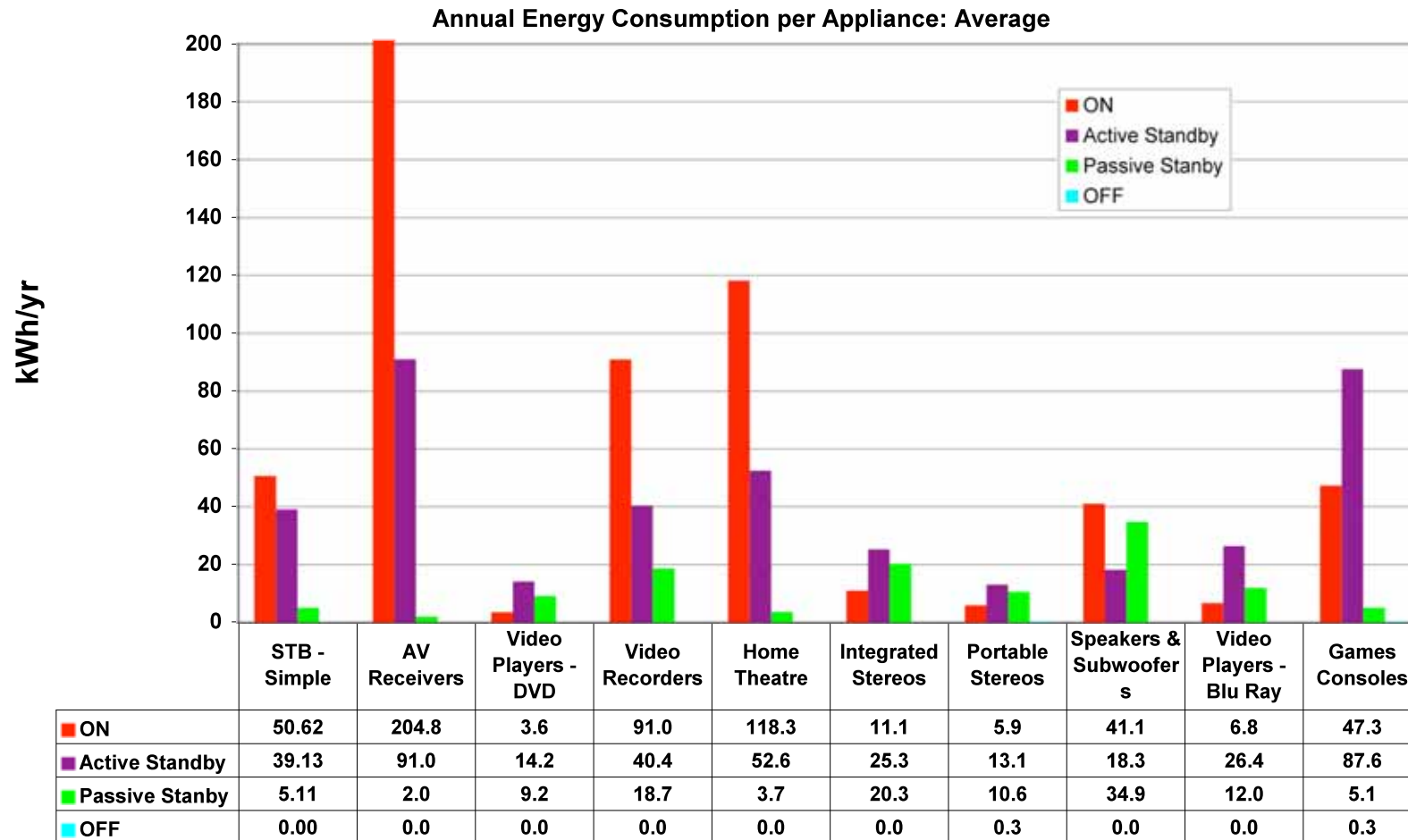


Total Energy Consumption Approach

- Energy targets based on maximum Total Energy Consumption (TEC)
 - $TEC = 0.365 \times (T_{On} \times P_{On} + T_{Standby} \times P_{Standby} + T_{APD} \times P_{APD})$
- European Code of Conduct (1 Jan 2010)
- Energy Star for STB (Current Version 2 + Draft Version 3)
- Australian calculations based on these assumptions + Energy Star AV product specifications



Annual Energy Consumption by Mode and Product Type in Australia

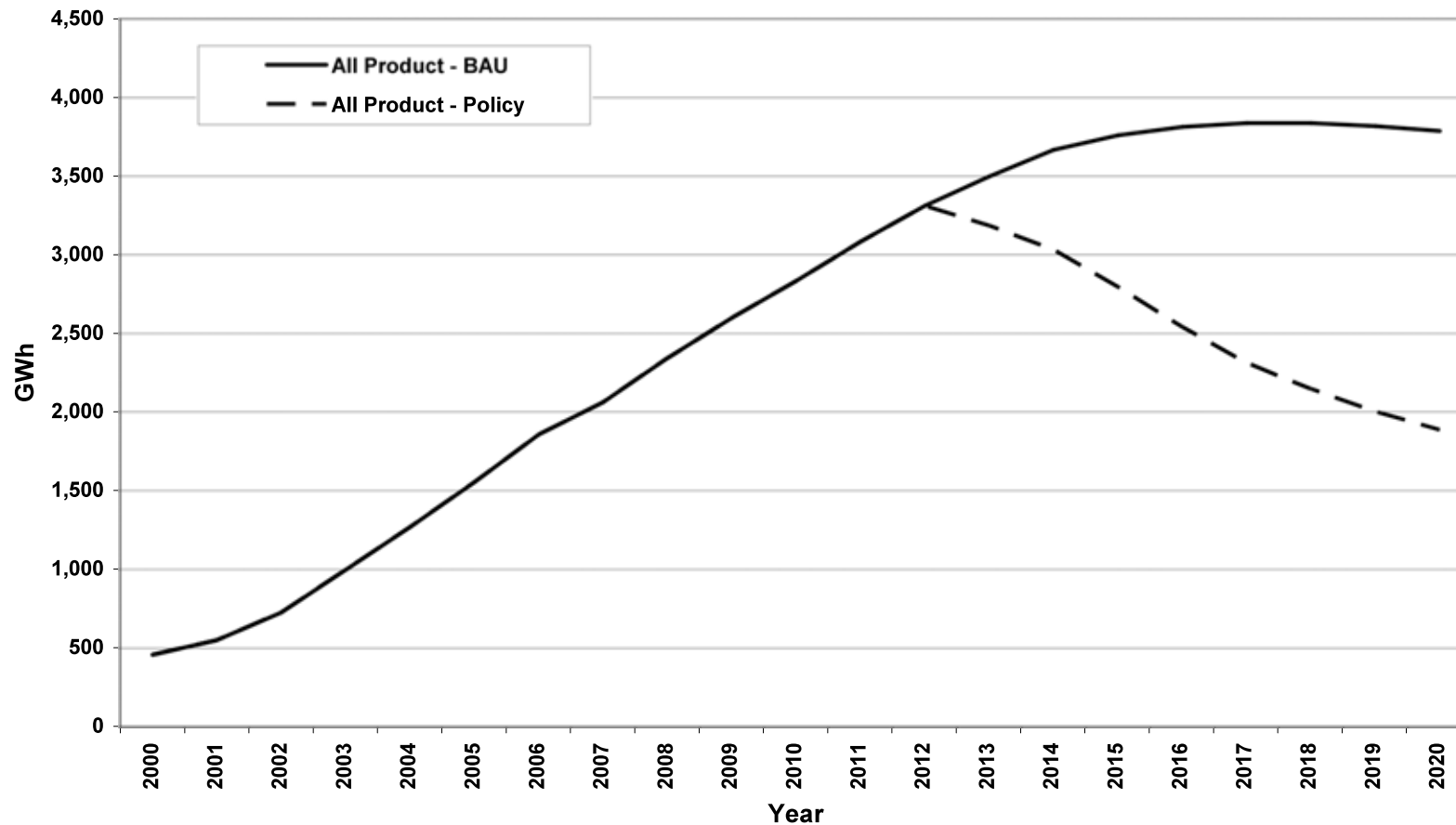


Energy Use Per Year by Mode



BAU vs. Assumed Energy Use Values Derived From Existing International Programmes – Energy Consumption for Home Entertainment Products

Net Annual Energy - BAU and Policy: Australia Base Sales Scenario



1 Watt Horizontal Standby Background

- 2002 – 2004: Proposed to address every product separately
- 2005 – 2007:
 - Proposed to cover Home Entertainment Products
 - Ministerial Announcement to meet 1 W standby for all appliances (late 2006)
- 2007 – 2009:
 - Development of Horizontal 1 Watt Standby RIS
 - Home Entertainment Products moved to separate policy investigation
- 2010 – Development of 1 Watt Horizontal Standby based on European regulations



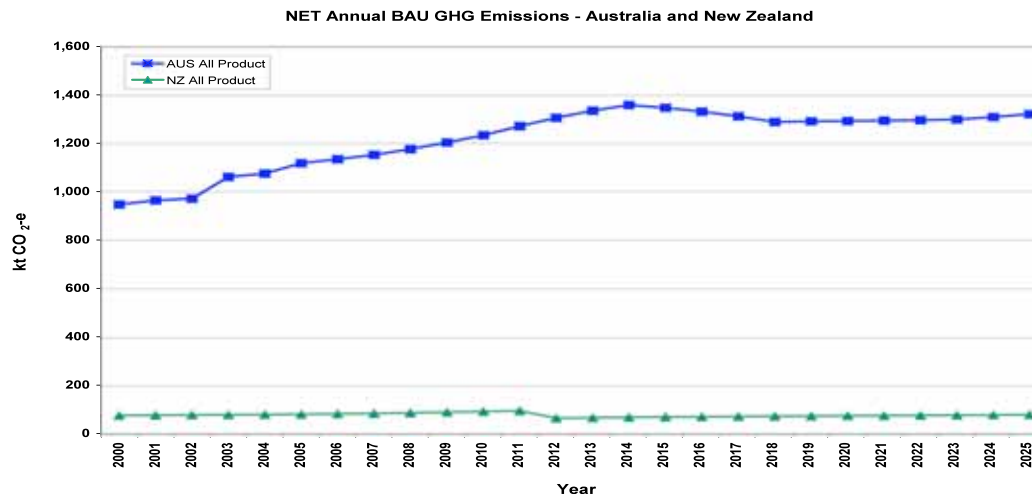
Products Potentially Covered by Horizontal Standby Policy

- Breadmakers
- Clock Radios
- Espresso Coffee Machines
- Burglar Alarms
- Gas Cooktops and Ovens
- Motion Sensors and Sensor Lights
- Microwave Ovens
- Smoke Alarms
- Ranges
- Remote Garage Door Openers
- Electric Space Heaters



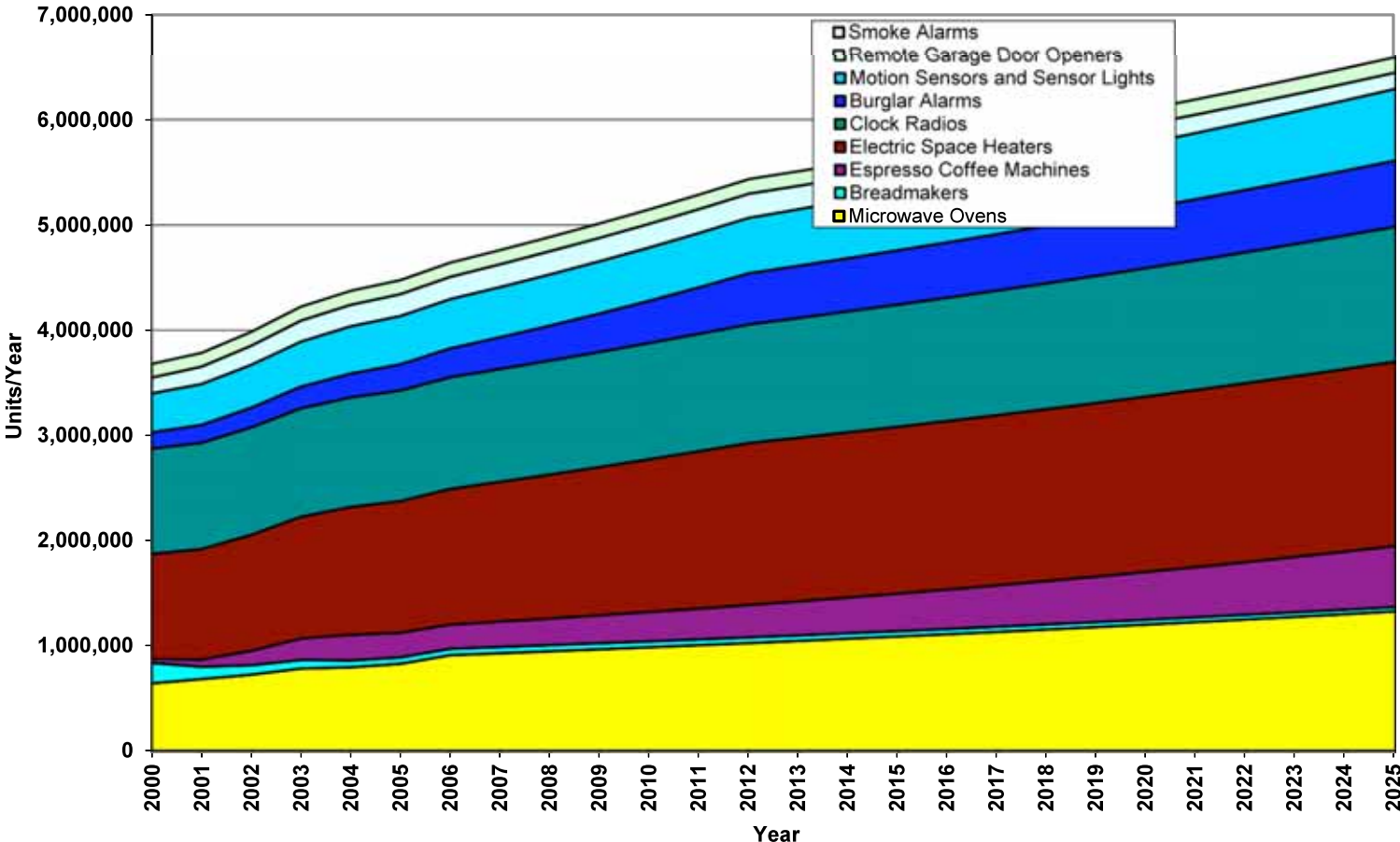
Market Characteristics

- In 2010 there are an estimated 49 million products being used in Australian households
- By 2025 the number of products is expected to grow to 69 million
- Sales have increased from 3.7 million p.a. in 2000 to 4.7 million pa in 2010 in Australia



Estimated and Forecast Sales

Annual Sales of Equipment by Category: Australia Base Sales Scenario



Potential MEPS (Oct 2013)

	Standby	Off†
Products with a display	1 watt	0.5 watts
Products with a reactivation function only	0.5 watt	0.5 watts

† Applies only if the product includes an OFF function.

Note: All product must have a standby or off mode unless not appropriate.

- The E3 Committee will seek stakeholder views about the regulatory proposal and the analysis contained in this RIS, and based on the analysis and consultation with stakeholders E3 intends to put to the MCE in late 2011 a recommendation

Summary of the cost-benefit analysis of MEPS (relative to BAU)

Measure	Unit	Scenario 1 (base sales)
Cumulative Values from 2013-2025		
Energy Saved compared to BAU	GWh	4,441
GHG Emission Reduction compared to BAU	Kt CO ₂ -e	3,749
Total Benefit	\$M	\$950.8
Total Cost	\$M	\$41.5
Net benefit	\$M	\$909.3
Benefit Cost Ratio		22.9

Notes: NPV discount rate: Australia 7.5%, Benefits include energy cost savings post 2025



Further Information

Thank You

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