



# Where to start:

## Assessing current performance

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Lighting, Appliances & Equipment: Session 3

Mark Ellis, IEA 4E

Jakarta 17 July 2018

 #energyefficientworld

A respected industry association claims that the MEPS level for a certain product are so out of date that all the products on your market easily comply.

*How could you find information to test the claim?*

List some of the ways you might make an assessment of the performance of products on the market.



# What's on the market?

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- Registration system data?

# What's on the market? Registration system data

[Help on Headings](#) | [Data Dictionary](#)



Australian Government  
Department of the Environment and Energy

Greenhouse and Energy  
Minimum Standards Regulator



Energy Efficiency and  
Conservation Authority  
Te Tari Tiaki Pūngao

- Cost Calculator
- Basic Search
- Advanced Search

## Product Televisions




Click the column header to sort the table. The table is currently sorted descending by Star Rating

Calculator Result	Brand	Model	Available	Screen Size	Screen Technology	Comparative Energy Consumption (kWh/annum)	Star Rating	Regulator	Availability	Expiry Date	Registration Number
\$151	Palsonic	TFTV700M	Australia	69.9	LCD (LED)	53.0	8.0	Australian Regulator	Available	2 Mar 2020	ATV1271
\$388	LG	49LV300C-TA	Australia, New Zealand	123.2	LCD (LED)	136.0	8.0	Australian Regulator	Available	18 Apr 2022	ATV2331
\$457	Sony	KDL-48W600B	Australia, New Zealand	120.9	LCD (LED)	160.0	7.0	Australian Regulator	Available	17 Nov 2018	ATV0658
\$434	SAMSUNG ELECTRONICS	UA48H4200AW	Australia, Fiji, New Zealand	120.9	LCD (LED)	152.0	7.0	Australian Regulator	Available	26 Jun 2019	ATV0989
\$708	LG	60LY960H-TA	Australia, New Zealand	151.3	LCD (LED)	248.0	7.0	Australian Regulator	Available	14 Nov 2019	ATV1171
\$331	SAMSUNG ELECTRONICS	HG40AD450BW	Australia, Fiji, New Zealand	100.3	LCD (LED)	116.0	7.0	Australian Regulator	Available	5 Feb 2020	ATV1237

Registration data provides a complete snapshot of the market

# Registration data is available in many markets



LabelNo5

โครงการฉลากประหยัดไฟฟ้าเบอร์ 5

หน้าแรก | เกี่ยวกับโครงการ | ติดต่อเรา | ความปลอดภัย

SEP 22

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## เครื่องรับโทรทัศน์

Posted by labelno5

### ข้อมูลฉลากแสดงระดับประสิทธิภาพเครื่องรับโทรทัศน์

ข้อมูล ณ วันที่ 30 มิถุนายน 2561

แสดง 10 แถวต่อหน้า

ค้นหา

ลำดับ	เครื่องหมายการค้า	รุ่น	ขนาดหน้าจอ (นิ้ว)	ประเภทจอ	ประสิทธิภาพ (W./m <sup>2</sup> )	ใช้พลังงานไฟฟ้า (หน่วย/ปี)	ค่าไฟฟ้า (บาท/ปี)	ระดับ
1	ACONATIC	AN-43DF800SM	43	DIRECT LED	71.21	88.70	351.27	5
2	ACONATIC	AN-LT4301	43	DIRECT LED	78.58	97.77	387.17	5
3	ACONATIC	AN-LT4901	49	UHD(4K)	82.34	116.19	460.12	5
4	ACONATIC	AN-LT5033	50	DIRECT LED	54.81	79.87	316.29	5
5	ALTRON	ALTV-2202	22	EDGE LED	69.75	45.59	180.55	5
6	ALTRON	ALTV-3203	32	EDGE LED	70.51	65.80	260.58	5
7	ALTRON	LTV-2405	24	EDGE LED	48.68	35.06	138.83	5
8	ALTRON	LTV-3203	32	EDGE LED	54.31	51.30	203.14	5

How similar is your market?

# What's on the market?

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- Registration system data?
- Manufacturers? Trade Associations?
  - Blind data

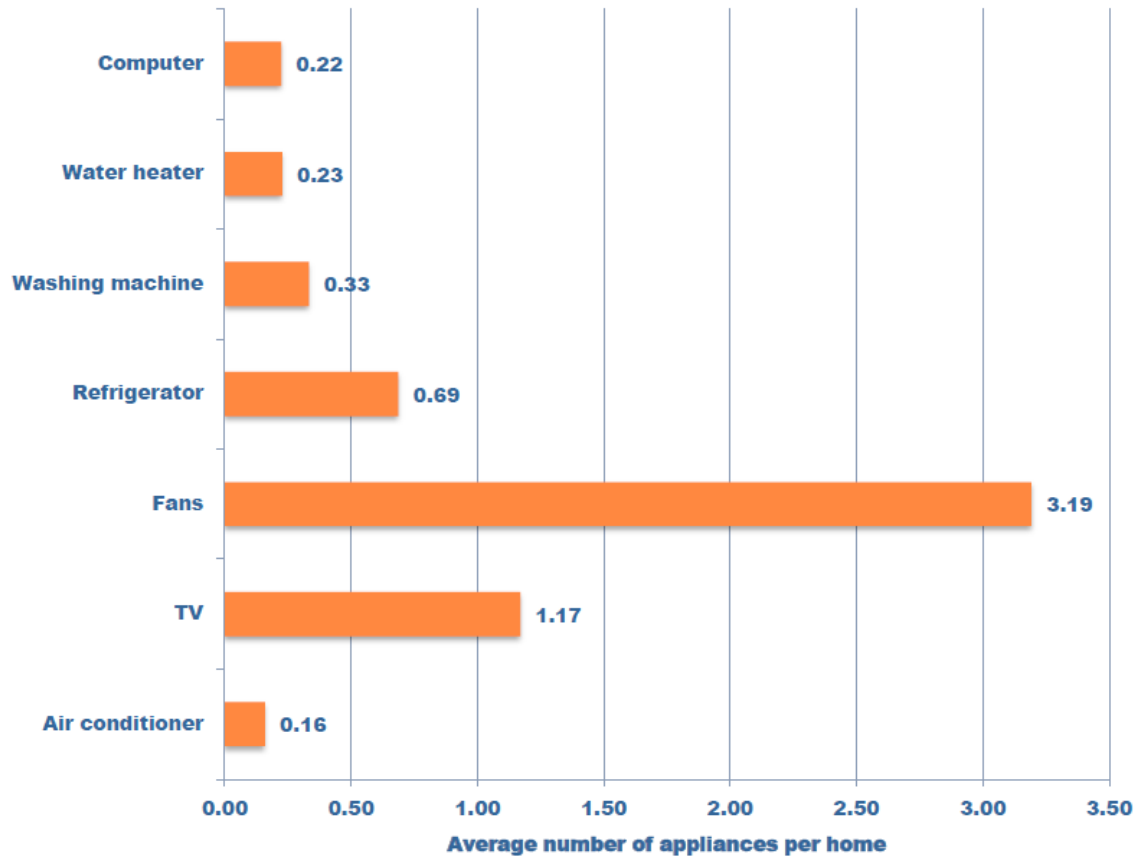
- Registration system data?
- Manufacturers?
- Purchased sales data? Market research information



- Purchase reports and/or data directly from market research companies (e.g. GfK, Mintel)
  - have consumer panels (many thousands)
  - links with retailers (and access to sales data)
- Subscribe to omnibus surveys
- Commission bespoke research

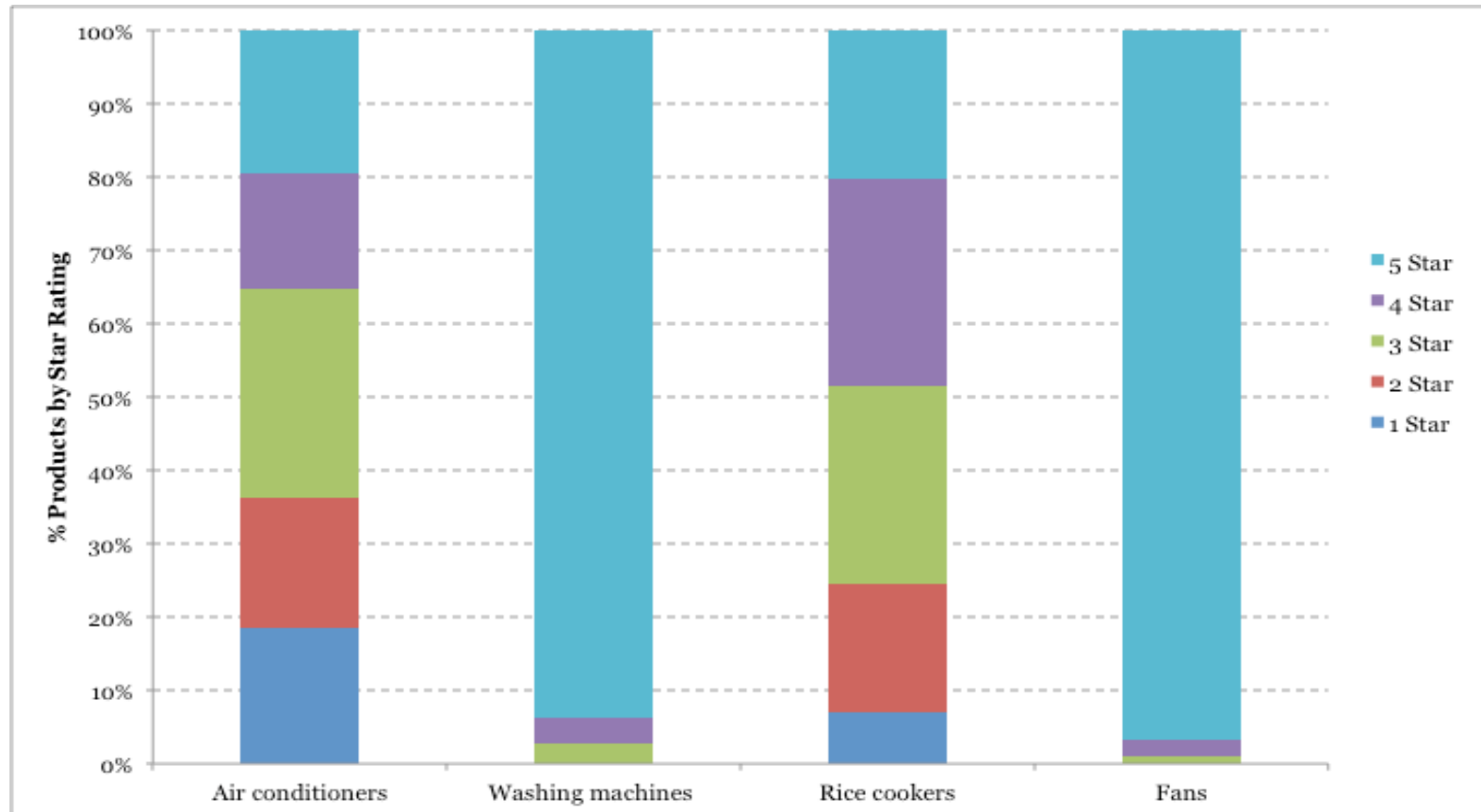
- Registration system data?
- Manufacturers?
- Purchased sales data?
- Household surveys or Store surveys?

# What's on the market? Household Surveys



Source: Vietnam Energy Efficiency Standards and Labelling Programme

# What's on the market? Store survey Vietnam



- Registration system data?
- Manufacturers?
- Purchased sales data?
- Household or Store surveys?
- Data from catalogues and the internet?

# What's on the market? Data from catalogues

## TECHNICAL DATA

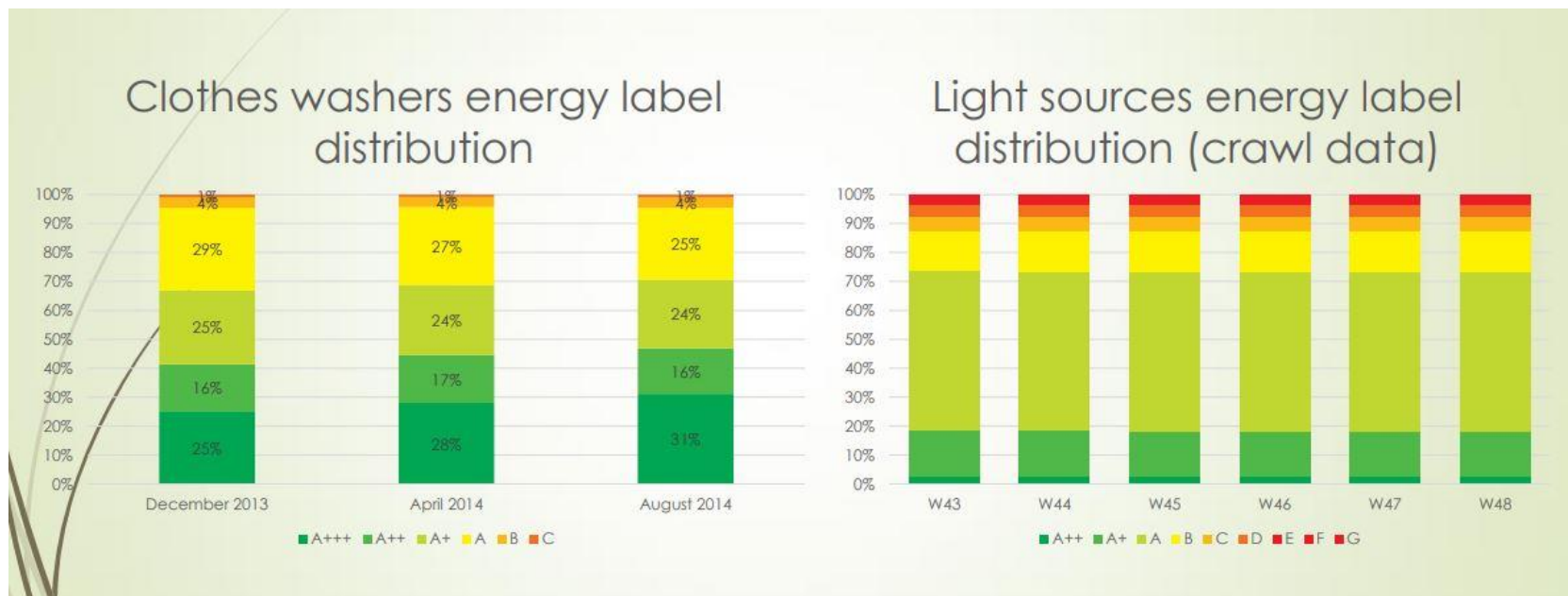
Product description	Electrical data	Photometrical data						Dimensions & weight		Temperatures & operating conditions	Lifespan
	Nominal wattage	Color rendering index Ra	Luminous flux at 25 °C	Luminous flux at 35 °C	Light color (designation)	Luminous flux	Color rendering index Ra	Tube diameter	Length with base excl. base pins/connection	Rated ambient temp.w. max. luminous flux	Lifespan
NATURA T5 28 W/76 <sup>1)</sup>	28.00 W	≥85	1950 lm	2150 lm	NATURA	1950 lm	≥85	16 mm	1149.00 mm	35.0 °C	24000 h

Product description	Additional product data		Certificates & standards		
	Base (standard designation)	Show WEEE picto	Energy efficiency class	Energy consumption	Energy efficiency class
NATURA T5 28 W/76 <sup>1)</sup>	G5	Yes	A	31 kWh/1000h	A

A lots of information on product technical specifications – available online

# What's on the market? Internet Data – web crawling



Source: Big2Great

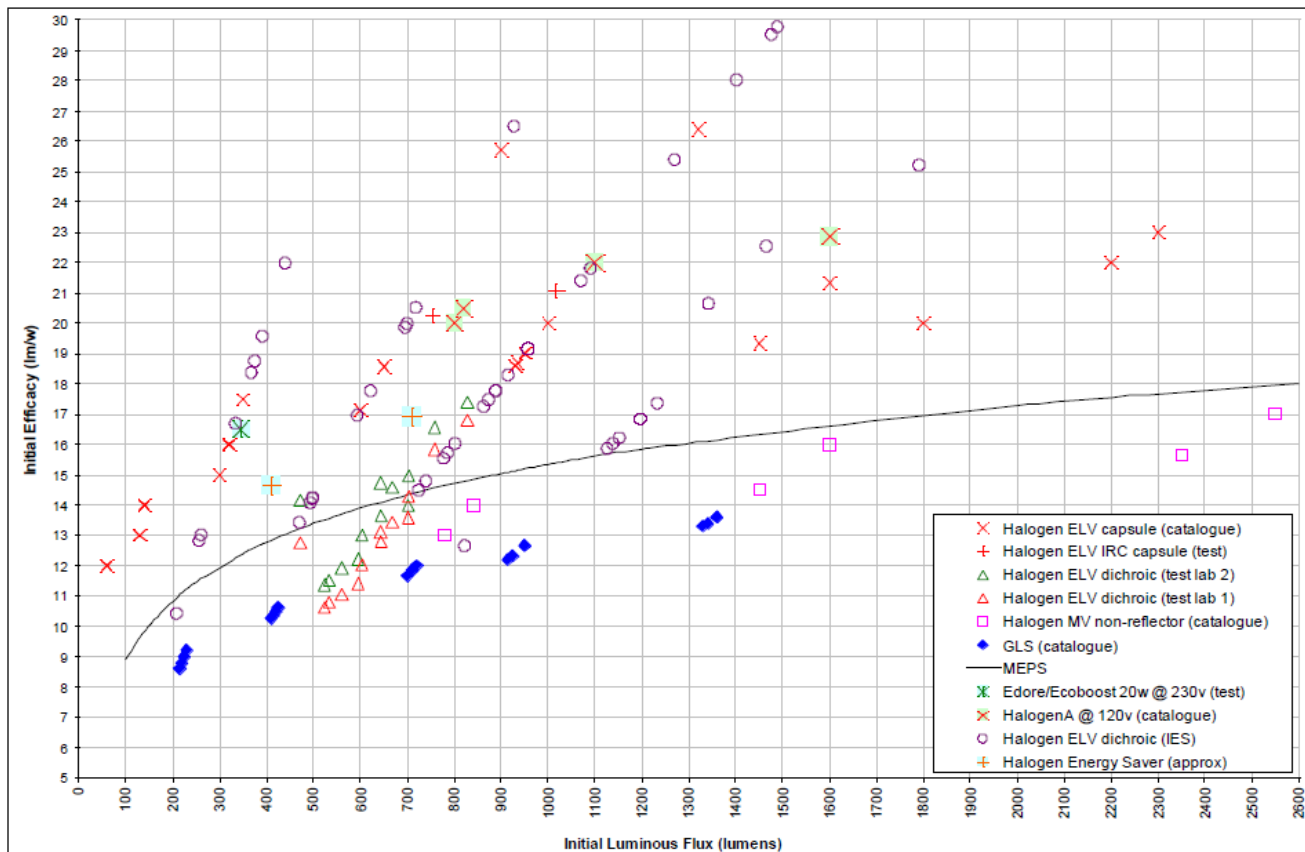
[https://www.iea.org/media/workshops/2015/productsdec15-16/3.2\\_KasperMogensen\\_WebcrawlingGatherDataOnlineMarketSurveillance.pdf](https://www.iea.org/media/workshops/2015/productsdec15-16/3.2_KasperMogensen_WebcrawlingGatherDataOnlineMarketSurveillance.pdf)

- Registration system data?
- Manufacturers?
- Purchased sales data?
- Household or Store surveys?
- Data from catalogues and the internet?

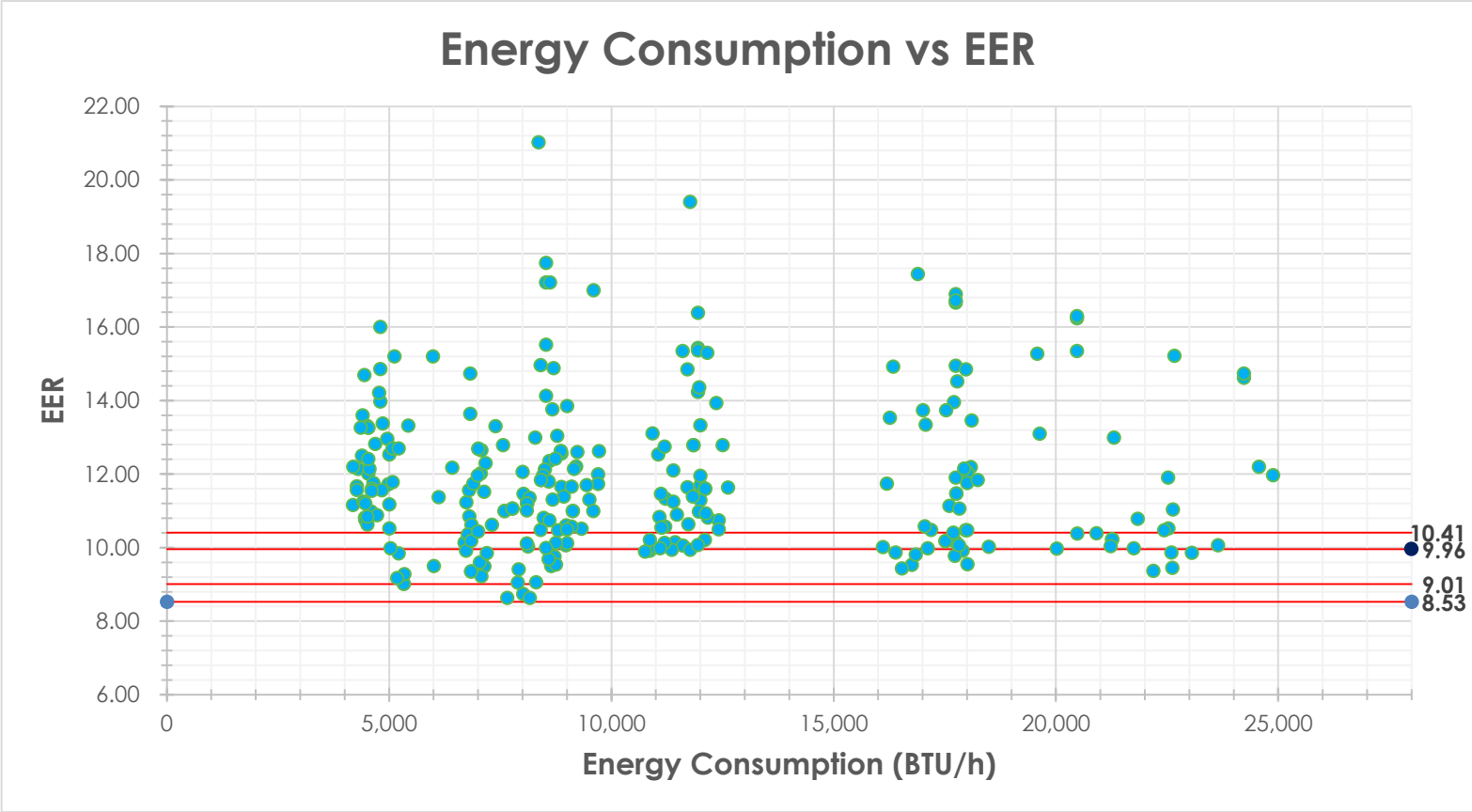


- Registration system data?
- Manufacturers?
- Purchased sales data?
- Household surveys?
- Data from catalogues and the internet?
- Test data?

# What's on the market? Test data (catalogue comparison)



# Ideal Information – Air conditioner example



A respected industry association claims that the MEPS level for a certain product are so out of date that all the products on your market comply.

*If the information is correct, what would you do next?*

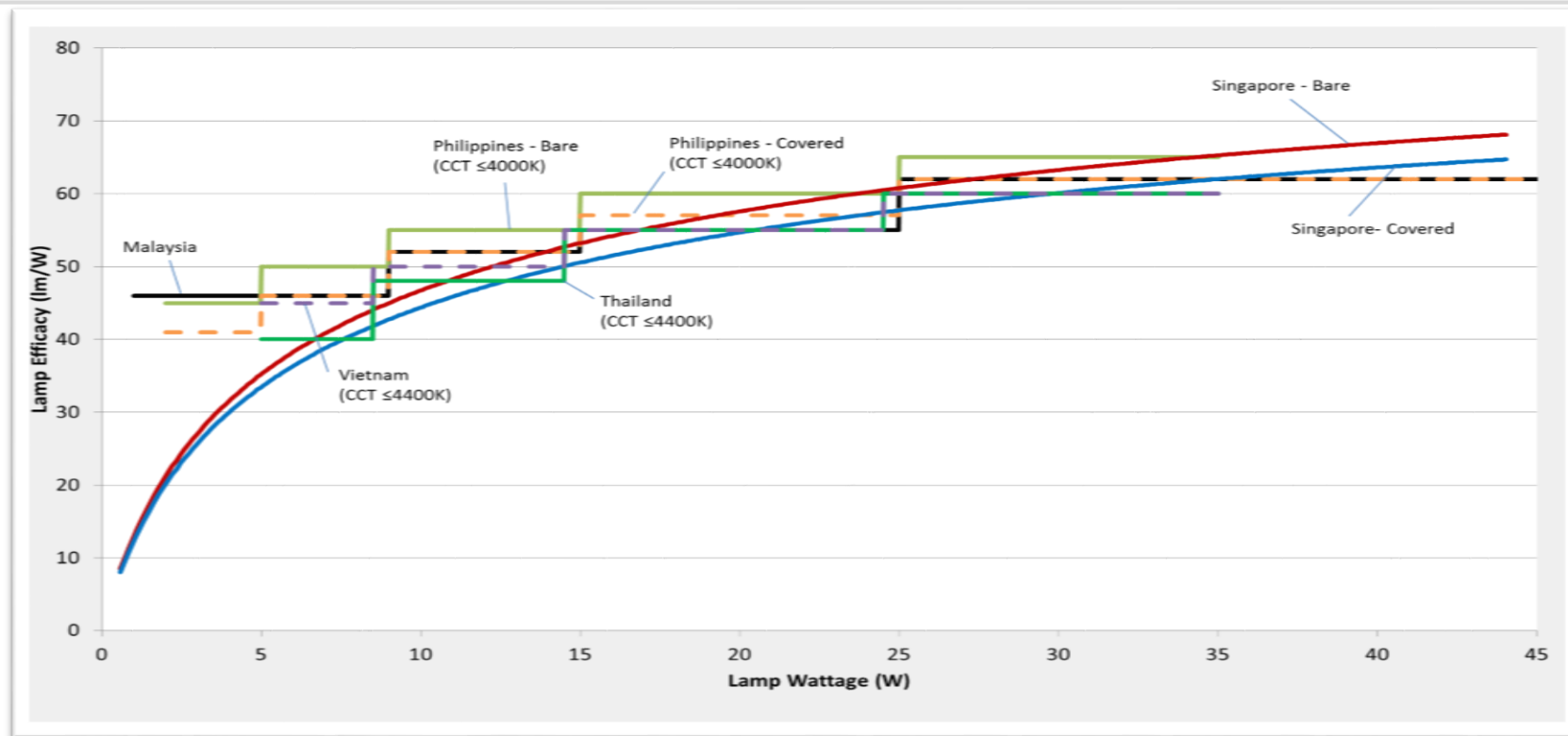
Break out exercise.

*What would you consider when you define new MEPS?*



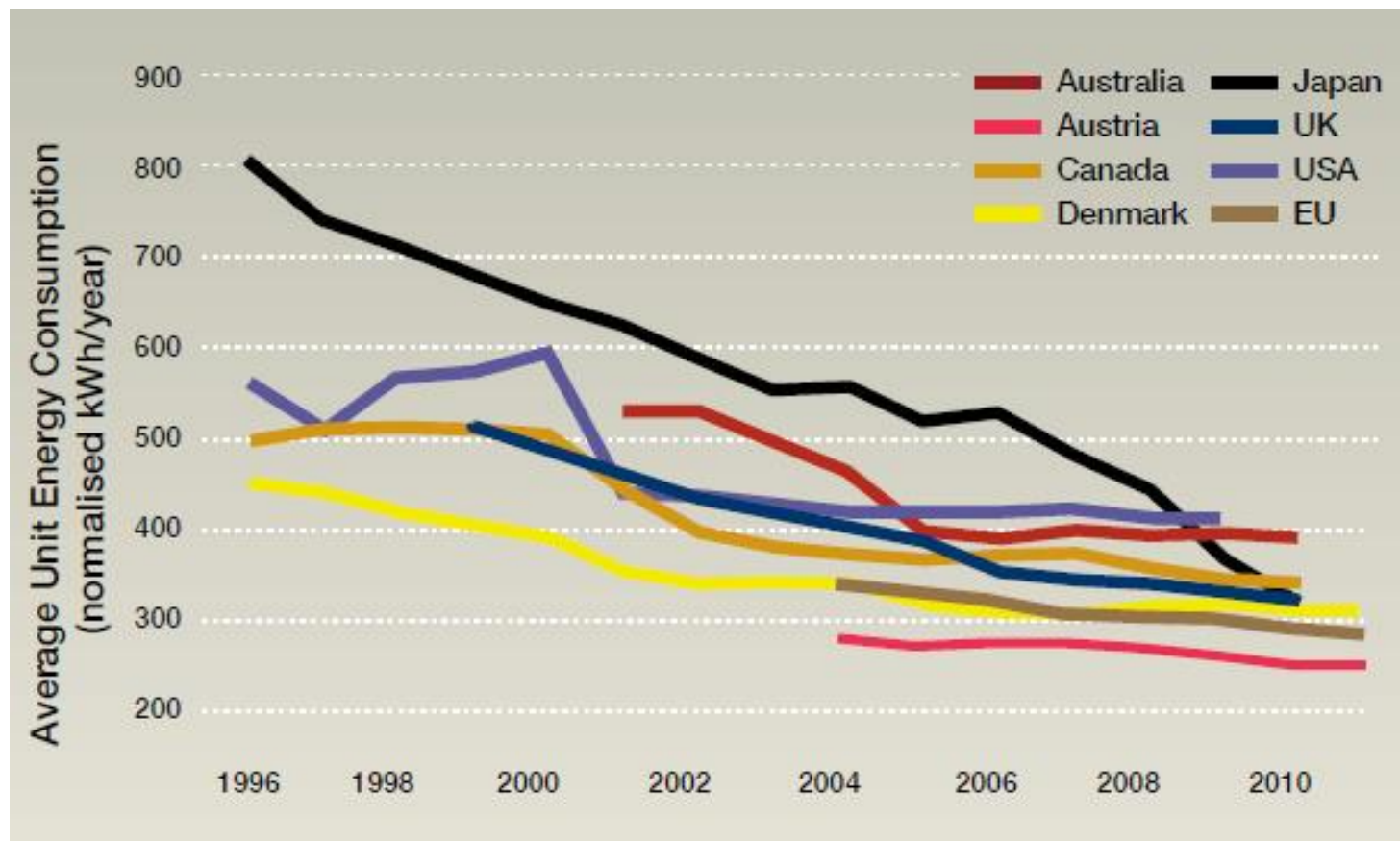
- Consider specifications in similar markets
- Consider global or regional harmonisation
- Use a market analysis (eliminate worse 20%)
- Undertake an engineering analysis (least life cycle cost)

# Consider specifications in similar markets



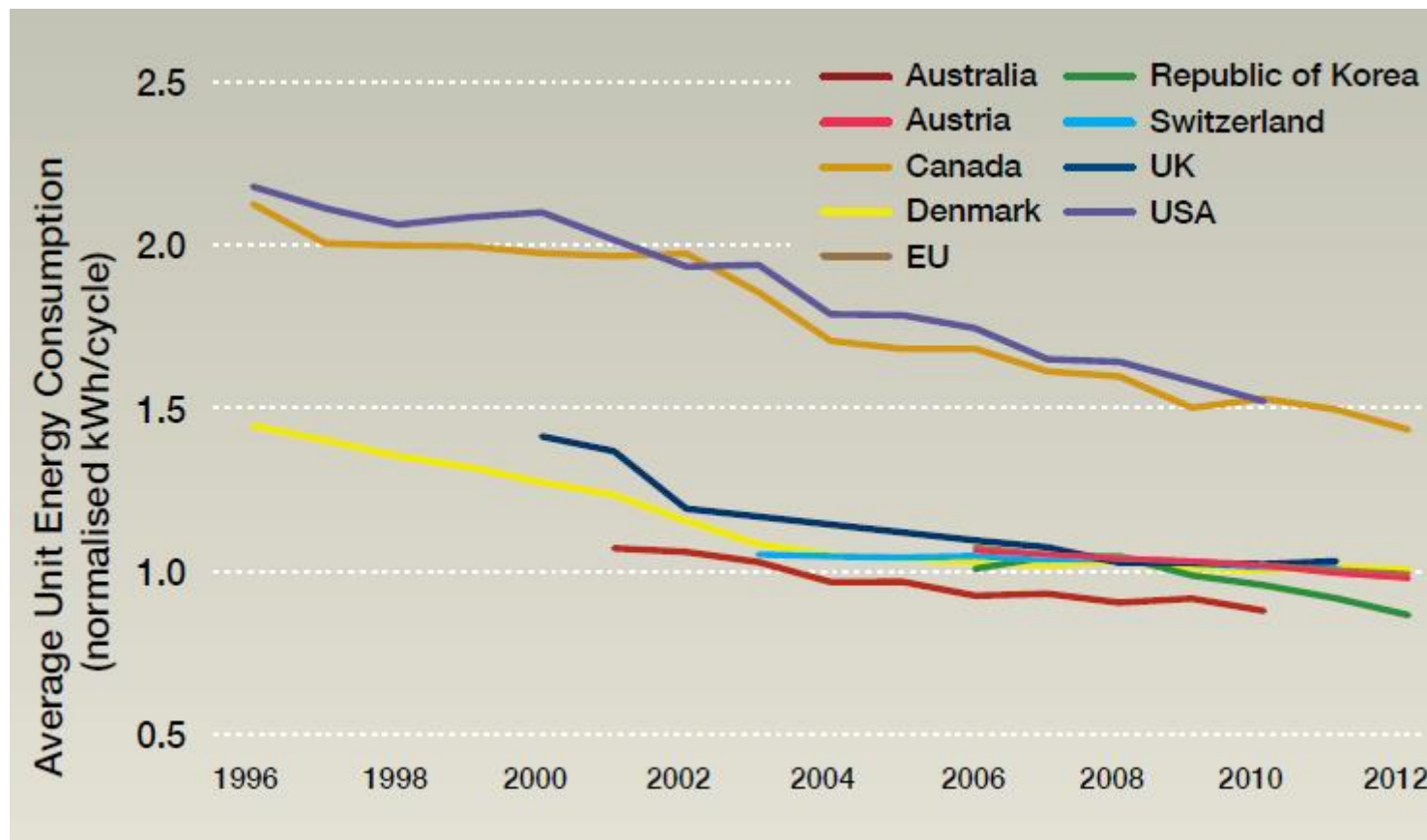
Minimum energy performance standards for low CCT compact fluorescent lamps in ASEAN

# Defining new MEPS



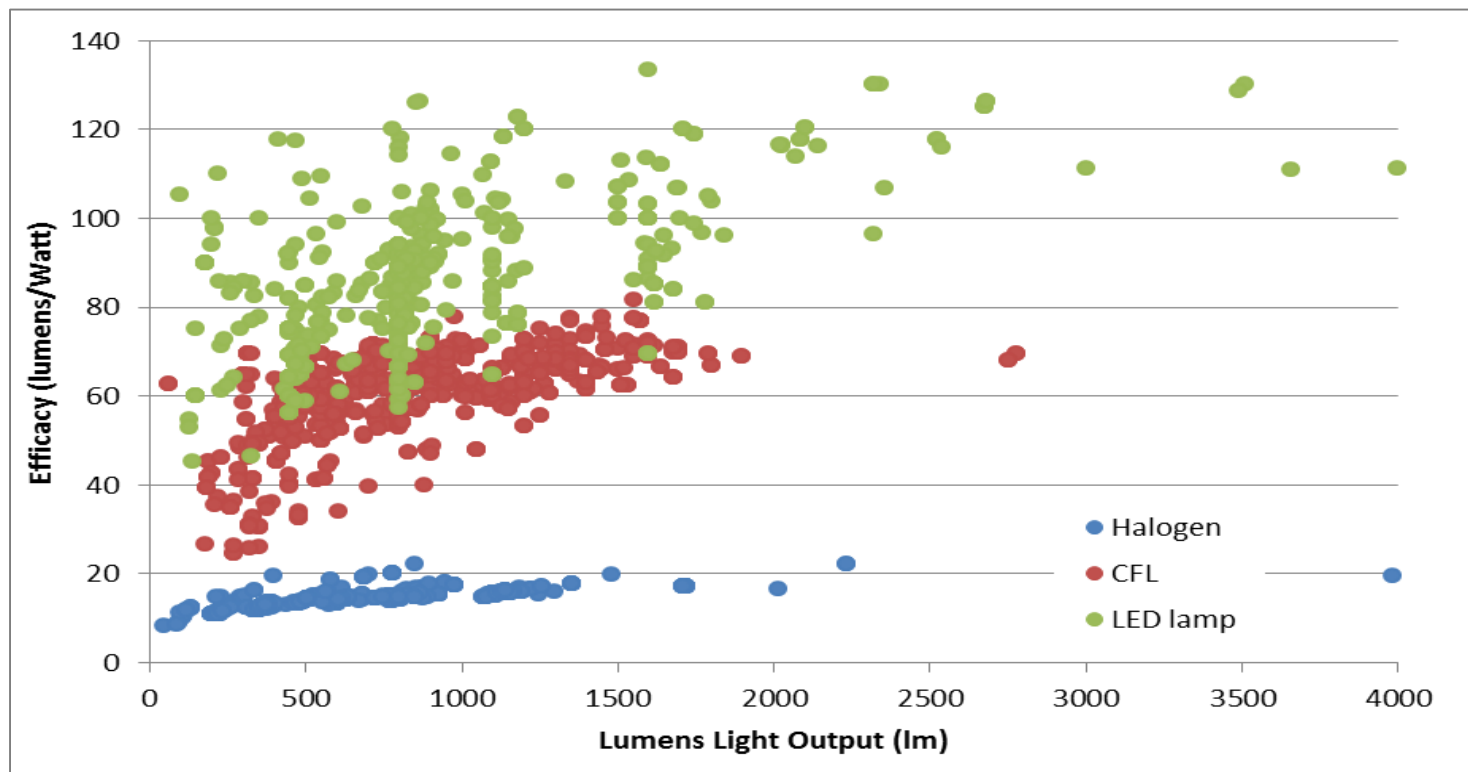
Source: [http://mappingandbenchmarking.iea-4e.org/shared\\_files/509/download](http://mappingandbenchmarking.iea-4e.org/shared_files/509/download)

# Defining new MEPS – comparing like with like

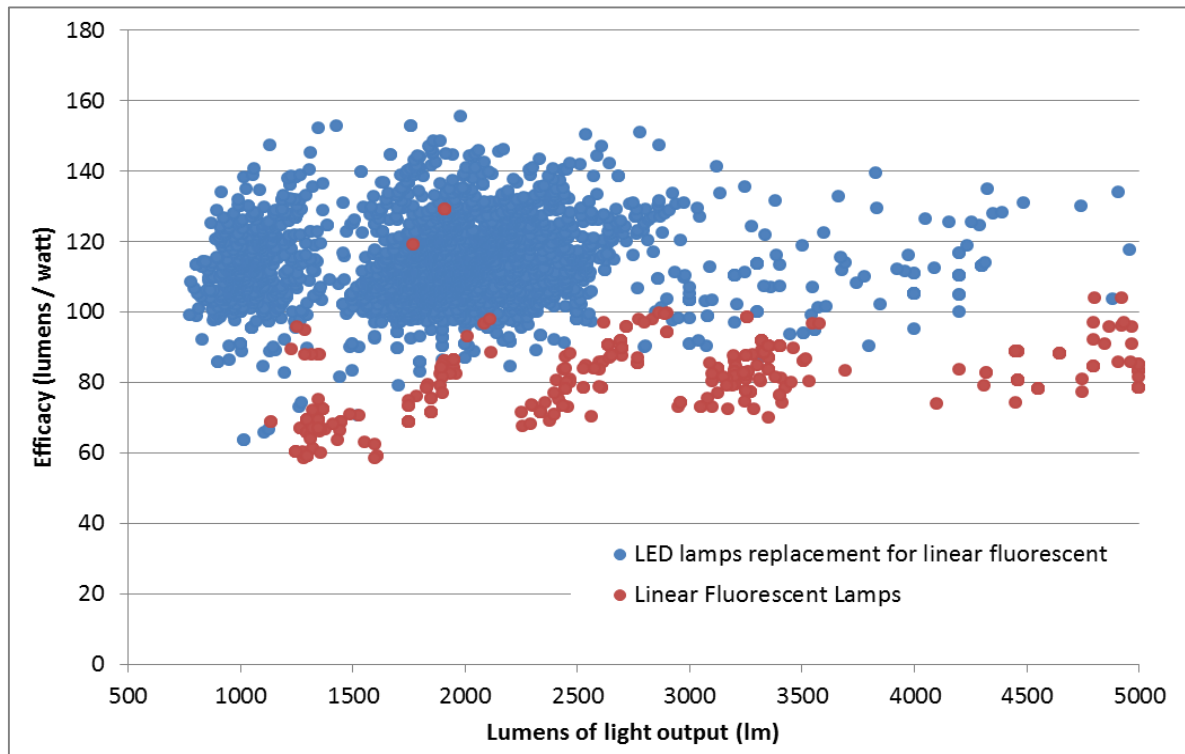


Source: [http://mappingandbenchmarking.iea-4e.org/shared\\_files/555/download](http://mappingandbenchmarking.iea-4e.org/shared_files/555/download)





# Technical assessments of technologies available on the market





[www.iea.org](http://www.iea.org)

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# Ideal Information – Air conditioner example

