

Little Appliances – Big Power Appetites



Paper on Three (3) Little Appliances

- Hot-water Kettle – up to 3,000 W
- Hand-held hair-dryer – up to 2,400 W
- Bread-toaster – up to 2,000 W
- Total 7,400 W**

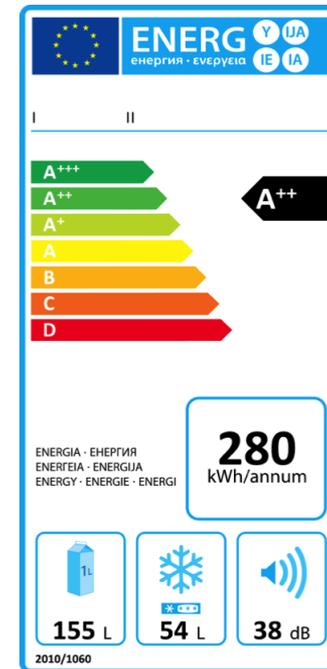
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Three Common Appliances Escape EU Energy Labelling

- Energy labels have been a success story world-wide, now adopted in some 100 jurisdictions
- In the European Union (EU), the Energy Label has been in use since 1979
- The EU label has been a role model for many jurisdictions
- Yet many appliances escape it!



Why?

- *De minimis non curat lex* – Roman law
- Small physical size \neq small power consumption
- Kettle, dryer and toaster all represent **mature** technology and were first patented some 100 years ago – *e.g.* pop-up toaster was invented by C.P. Strite in 1919
- All three rely on heating rods or filament
– made of NiCr alloy (U.S. Pat., A. Marsh, 1906)



By Sheer Happenstance?

- Kettle, dryer and toaster are all MELs
 - Miscellaneous Electric Loads (U.S.)
- Peak load vs. base load
- Base loads are usually considered “essential” consumption in households – and not only households
 - illumination, heating, cooling
- Is everything else “non-essential”?
 - from the point of view of EE labelling
- **NO** – many LARGE appliances carry labels
 - even if not base load, such as washing machines
- The answer is probably: **YES**



Out of Sight – Out of Mind?

- Small peak-load, high-wattage appliances have escaped EE labelling regimes, because they are
 - mature, also commercially, and therefore
 - ubiquitous
 - relatively cheap – at least at “entry level”
- Consequently, manufacturers and suppliers have neglected technical innovation and turned to...



Colour, *Design* & Branding® I

Toasters			
		7.7.2017	27.7.2019
Number of models		67	82
Number of brands		16	19
Price Range, Euro	Min	23.90	16.95
	Max	359.00	269.00
Power Load, Watt	Min	600	600
	Max	1 800	2 000



Colour, *Design* & Branding®

Kettles			
		7.7.2017	27.7.2019
Number of models		66	127
Number of brands		16	20
Price Range, Euro	Min	19.90	19.95
	Max	299.00	199.00
Power Load, Watt	Min	1 300	1 300
	Max	3 000	3 000



Colour, *Design* & Branding® III

Dryers			
		7.7.2017	27.7.2019
Number of models		30	53
Number of brands		10	10
Price Range, Euro	Min	9.90	9.99
	Max	249.00	399.00
Power Load, Watt	Min	1 200	1 200
	Max	2 400	2 400



Market Survey Conclusions

- *Ceteris paribus*, in just two years
 - the number of models had almost doubled
 - the minimum and maximum power ratings had not changed
 - the prices had not changed
 - admittedly, some fluctuation in the highest, "luxury" segment, but this does **not reflect any improvements in basic technology, much less energy efficiency**



From Incandescent Light Bulb to Light Emitting Diode (LED)

- The Bulb – T. A. Edison – U.S. Pat. 1880
 - dominant for over 50 years
- Fluorescent Light Tube (FLT), 1937
- Compact Fluorescent Light (CFL), 1973 – 1974,
 - E.E. Hammer, GE, Schenectady, NY
 - **NOT PATENTED**
- **LED**, U.S. Pat. 1966
 - dominant **NOW**, after ca. 50 years



Competition of Marks & Labels

- Mandatory and tightly regulated
 - safety labels (electrical)
 - mandatory EE labels
 - price (usually)
- Voluntary and regulated
 - trade marks[®]
 - origin, including D.O.C., A.O.C. etc.
 - CE mark
- Fully voluntary
 - voluntary promotional, including voluntary EE and eco-labels, fair trade labels etc.



FAIRTRADE



Energy Efficiency – A Legal Norm?

- The EU started with a voluntary EE labelling regime in 1979 – it did not work out
- Common Market *de facto* forces mandatory labels and the related regulatory system
- This leads to a situation where such system has become thoroughly legalised
 - from initiation (EU Commission)
 - to law-making (European Parliament)
 - to implementation (EU Member States)
 - to legal scrutiny (European Courts of Law)



The Dyson Case

- Dyson Ltd., UK, invented and patented a bagless vacuum cleaner ≠ →→
- A new Directive 665/2013 was adopted
- Dyson's vacuum cleaners were given lower grades than those of competitors
- “Normal conditions of use”



Dyson – Chronology

- **2013** – Dyson sued the Commission in the General Court of the EU – “discrimination”
- **2015** – General Court rejected Dyson's claim
- **2016** – Dyson appealed to European Court of Justice, which supported Dyson and sent the case back to General Court
- **2018** – November 8, 2018, General Court ruled that Dyson's appeal was valid



Dyson Case – Conclusion

- General Court **annulled** the entire Regulation 665/2013,
- citing Dyson's argument that the Commission had disregarded an essential element of Directive 2010/30/EU on the indication by labelling and standard product information of the consumption of energy and other resources by energy-related products
- EE labels **removed from vacuum cleaners**, even those placed into the market



The Toaster Case



- Not a Court Case, rather a Media Case
- David Coburn, MEP from Scotland (UKIP) claimed in the press that the EU wanted to spoil his breakfast by regulating toasters
- Commission had proposed discussion concerning **EE labelling of toasters**
- After the brouhaha, the proposal was withdrawn by Commission
- The case was for **BREXIT** news market



Conclusions

- **From light bulb to LED**
 - energy economy first – cost! – labels had no role
- **EE labelling regimes**
 - voluntary schemes do not work
 - compete with other labels – messages
 - happenstance happens
- **Mandatory labels invite legalism**
 - Is energy labelling right?
 - No labelling – no technical progress →→→
- **A risk of planned economy?**



Thank you!

Xiè xiè!

谢谢！

