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

- By Vesa A. Lappalainen
  – a late-bloomer graduate Ph.D. student
  – from University of Vaasa, Finland
  – long-term international energy lawyer and
  – energy law and policy consultant
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 ≠ 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®

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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.
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！