

Mapping & Benchmarking of residential electric laundry dryers

The IEA's 4E Mapping and Benchmarking Annex provides policy makers with evidence based comparisons of the performance of products sold in various national markets. This allows benchmarking of the success of national policies in managing product energy consumption and efficiency and enables identification of opportunities to further encourage the uptake of energy efficient products.

This briefing describes the outcomes of the international comparison of laundry dryers. The analysis includes information drawn from Australia, Austria, Canada, Denmark, the EU, France, Spain, Switzerland, UK and USA.



Observations for Policy Makers

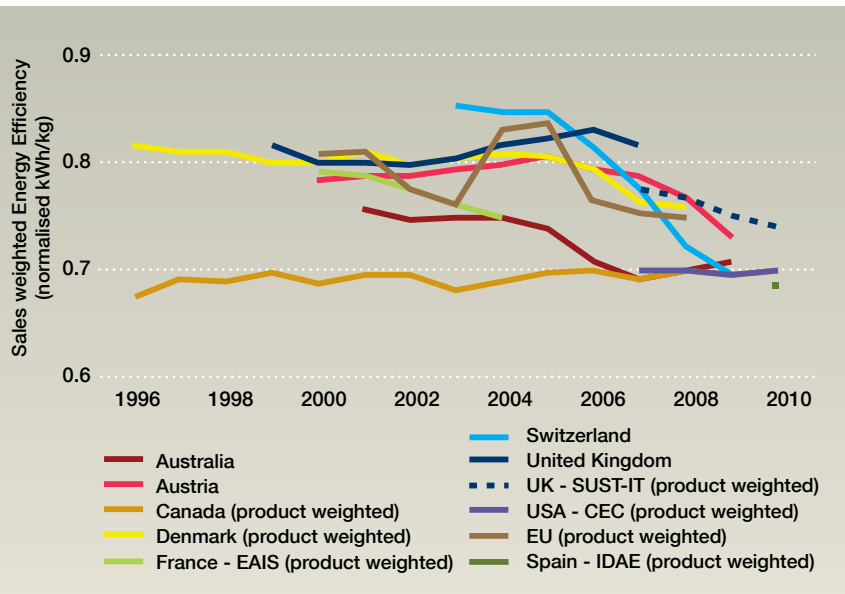
- **The average efficiency levels** of dryers in Europe and Australia have improved significantly to nearly match those of USA and Canada by 2011, at around 0.7 kWh/kg.
- **The spread of performance from best to worst** is very different for each country: +/- 25% for Europe and Australia but only +/- 7% for USA and Canadian products. But the Canadian average has changed by less than 4% over the past 16 years.
- **There is significant scope for efficiency improvement in all markets.**
- **Poor efficiency products** continue to sell where Minimum Energy Performance Standards (MEPS) are weak or absent. MEPS at the USA/Canada level would eliminate just over half of products in other markets and lift average efficiency by 9%.
- **Reducing usage** through more use of natural air drying could cut consumption far more than improving appliance efficiency. The use of dryers varies very widely for climate and cultural reasons, from 420 cycles per year in Canada and US to only 50 in Australia.
- **Heat pump appliances** consume less than half the energy of vented and condensing appliances but sales remain very low in most countries due to an approximate 30% price premium. But Swiss and Austrian markets had 25% heat pump sales by 2009 and only heat pump dryers are likely to meet a Swiss mandatory standard for 2012. If replicated in other markets this MEPS level would cut consumption by 60% globally.

More Information

All publicly available Annex mapping and benchmarking outputs are available on the Annex website at <http://mappingandbenchmarking.iea-4e.org>.

For further information email: contact@mapping.iea-4e.org

Key Findings



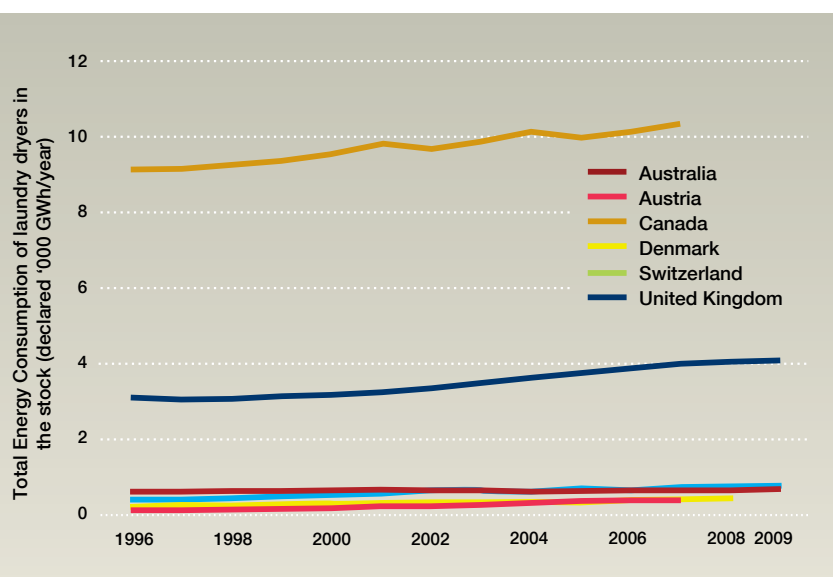
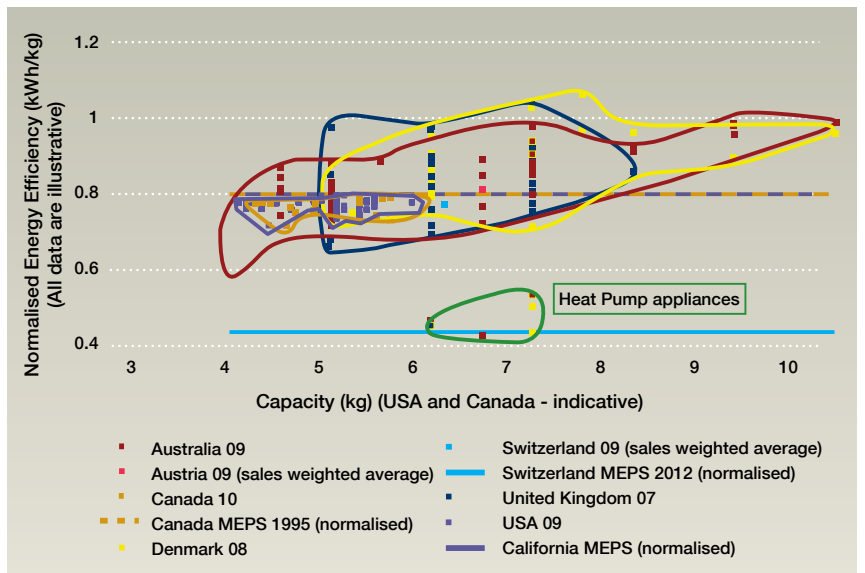
Efficiency Levels Over Time

Despite previous differences, the average efficiency levels of products sold in Europe, USA, Canada and Australia have converged in 2011 at around 0.7 kWh per kg of dry fabric. The average capacity of dryers in the UK, Austria, and Denmark has grown by around 30% over the past seven years but in Australia and Canada has remained constant for the past decade.

Caution: Comparisons between US/Canada and other regions should be treated with particular caution due to uncertainties in corrections for test methodologies.

Efficiency of Recent Products

North American products cluster closely under the MEPS level but more efficient products than these sell in UK and Australia, implying that improvement is possible in all markets. Heat pump appliances consume less than half the energy of vented and condensing appliances at 0.3 to 0.4 kWh/kg (normalised) but are more expensive to purchase.



National Energy Consumption

Of the six countries analysed, Canadian dryers had by far the largest consumption at over 10 TWh per year (2007); compared to 4 TWh in the UK and less than 1 TWh each in Australia, Austria, Denmark and Switzerland. Total energy consumption from dryers in Austria is growing by over 10% per year, followed by Switzerland at 7%. The growth rate in other countries is 5% or less per year.

This policy brief is based on a full report published in June 2011. Data quality varies between countries and graphs. See full report for details. The IEA Implementing Agreement on Efficient Electrical End Use Equipment has made its best endeavours to ensure the accuracy and reliability of the data used herein, however makes no warranties as to the accuracy of data herein nor accepts any liability for any action taken or decision made based on the contents of this report.