Coffee Machines: Policy Recommendations

November 2013

Summary

- According to GfK more than 18 million coffee machines are sold in Europe every year. It is estimated that every year up to 10'000 million kWh or about 2'000 million Euro electricity costs could be saved, assumed that in the next years 100 million coffee machines in Europe were replaced by energy efficient models.
- The European Standby Regulation has been revised and now also includes coffee machines and networked standby. The Regulation was officially published on 23. 8. 2013.
- For coffee machines short auto-power-down delay times in factory setting as well as programmable are key. The revised Standby Regulation leaves room for interpretation and therefore loopwholes for producers.
- The measuring standard for coffee machines EN 60661 has been revised. A good method has been drafted. CENELEC shall finish this work as quickly as possible, so that the national committees can vote on it and that the standard can be applied as soon as possible.
- The introduction of an EU energy label for coffee machines is not foreseen at the present time. However, Topten still would welcome the introduction of this measure at a later date.

1. Stock and Saving Potentials

According to GfK more than 18 million coffee machines are sold in Europe every year. For comfort and quality reasons there are strong trends towards espresso fully automatic machines and espresso portioned machines. The energy efficiency of coffee machines can strongly be enhanced with relatively simple measures such as auto-power-down, better insulation of boilers or flow-type heaters, energy saving mode, low or zero standby, and the reduction of the thermal capacity of the heating unit. If in the next years 100 million coffee machines in Europe were replaced by energy efficient models, every year up to 10'000 million kWh or about 2'000 million Euro electricity costs could be saved.

2. Standby Regulation – Delay time of the Auto-Power-Down Shall be Understood as Maximum for Factory Setting and Programmable Times

As of 1 January 2015 for coffee machines, the delay time after which the product switches automatically into the modes and conditions referred to in Annex II, point 2, paragraph d) shall be as follows (Commission Regulation (EU) No 801/2013 of 22 August 2013):

- for domestic drip filter coffee machines storing the coffee in an insulated jug, a maximum of five minutes after completion of the last brewing cycle or 30 minutes after completion of a descaling or self-cleaning process,
- for domestic drip filter coffee machines storing the coffee in a non-insulated jug, a maximum of 40 minutes after completion of the last brewing cycle, or 30 minutes after completion of a descaling or self-cleaning process,
- for domestic coffee machines other than drip filter coffee machines, a maximum of 30 minutes after completion of the last brewing cycle, or a maximum of 30 minutes after activation of the heating element, or a maximum of 60 minutes after activation of the cup preheating function, or a maximum of 30 minutes after completion of a descaling or self-cleaning process, unless an alarm has been triggered requiring users' intervention to prevent possible damage or accident.

Topten understands the outlined delay times as maximum values for the factory settings as well as for the programmable times. However, the text does not precisely define this and therefore also leaves room for other interpretations. Producers might use the loopwhole to deliver the machine in an energy efficient mode but to offer also a programming function which makes it possible to prolonge the delay time excessively.

Why the wording in the Regulation No 801/2013 should be understood as maximum for both – factory setting and programmable times – is explained in the following section:

- Nowadays, many coffee machines have an auto-power-down. The delay time usually is factory set.
- Topten observed that these factory set delay times have been reduced over the past few years step by step. Short auto-power-down delay times are a good sales strategy and became a need to get a good classification within the Swiss voluntary energy label for coffee machines.
- On the other hand, Topten found that the delay time especially of fully automatic coffee machines sometimes can be re-programmed and prolonged by the user up to 2h, 3h, 4h, 5h, 8h, 9h, 12h and even 15 hours. For more details see Topten-research on delay times of coffee machines 2012 (see Topten-research on delay times of coffee machines 2012, Link below).
- Long auto-power-down delay times especially are crucial in case that the coffee machine is only little used. They highly increase the energy consumption and therefore this practice is questionable.

- In contrast, short auto-power-down delay times do not hinder the comfort of a coffee machine. Assumed the coffee machine frequently is used, the machine is any way is often "ON", a fact which is absolutely fine, because the machine really is in use. Is the coffee machine only seldom used, it must be made sure, that the machine switches off very soon to avoid a waste of energy.

4. Energy Measuring Method – Quick Finalisation of the Revised Standard EN 60661 Has to be Aimed

- The measuring standard for coffee machines EN 60661 currently is under revision.
- A good method has been worked out for pressure and filter coffee machines.
- It is important that CENELEC will finish this work as quickly as possible, so that the national committees can vote on it and that the standard can be applied as soon as possible.

5. The Introduction of an EU-Energy Label for Coffee Machines Still Is Recommended at a Later Date

- Topten is aware that the introduction of en EU energy label for coffee machines is not planned at the present time.
- However, Topten still recommends its introduction at a later date for the following reasons:
    - Consumers have a claim for being informed on the energy consumption and the energy classification of an appliance.
    - For many other household appliances the EU-Energy label is a matter of course. Alike it shall become for coffee machines.
    - Even considering Auto-power-down requirements the energy consumption of "energy efficient" coffee machines still varies with factor 2. A rating of the Energy Efficiency of coffee machines makes sense and helps consumers to choose the most efficient machines.
    - In addition, a label scheme gives incentives to industry to improve their products.
    - The label shall be based on revised IEC 60661 and on the results of Round Robin Tests.
    - In Switzerland exists a voluntary energy label for coffee machines since 2009. The experiences are positive.

Links

- **Topten-research on delay times of coffee machines 2012**
  http://www.topten.eu/uploads/images/upload/
  Topten_Research_Delay_Times_Coffee_Machines_2012.pdf
- **Topten policy recommendations on Standby**
  http://www.topten.eu/uploads/File/STANDBY Topten EU policy recommendations December **12.pdf**
- **Ecodesign regulation No 1275/2008 for standby and off mode power consumption**
  http://www.topten.eu/uploads/File/Standby_regulation_1275_2008.pdf
- **Ecodesign regulation No 801/2013 on networked Standby, amending regulation No 1275/2008**
  http://www.topten.eu/uploads/File/Networked-Standby_Ecodesign-regu_801-2013.pdf