

Recommendation For The Capacity Labelling Of Portable Primary Batteries

1. Regulatory Context

On 24 November 2005 European Parliament's Committee on the Environment, Public Health and Food Safety, Rapporteur Hans Blockland, issued recommendations for the Second Reading of the Directive on batteries. (Ref. [A6-0335/2005](#))

Among the recommendations was the following concerning capacity of batteries:

Amendment 10 (Recital 18a): *End-users should also be informed of the capacity of the batteries they buy so that they are able to make an informed choice.*

Justification: *Re-introduces amendment 5 of EP first reading, which was accepted by the European Commission (COM(2005)378). Non-rechargeable batteries vary largely in price, which is partially due to their different capacity. All sorts of qualitative claims are made about the performance of non-rechargeable batteries. While information about the capacity is already given for rechargeable batteries, this is not yet the case of non-rechargeable ones. In order to ensure clear and transparent information, consumers should be informed about the capacity of all batteries.*

Explanatory Statement (extract): *Regarding labelling, the capacity of all batteries, accumulators and battery packs has to be indicated on them in a visible, legible and indelible form. On the basis of this information, consumers are able to choose for batteries with a higher performance and lifetime. Some batteries are cheap, but have a much shorter lifetime. For example the capacity of Alkaline batteries is about four times higher than the capacity of the Zinc-Carbon batteries. Although the price of the Zinc-Carbon batteries is half of the price of Alkaline batteries, buying Alkaline batteries is about two times more economic considering the capacity. Above this, Zinc-Carbon batteries contain much more lead: this is an important environmental reason not preferring Zinc-Carbon batteries.*

On 17 January 2006 the European Commission issued its opinion on the EP position at second reading (Ref. [COM\(2006\)0017](#)). This contained the following statement on capacity labelling: *The Commission accepts amendment 38 which requires that the battery capacity will be indicated on a label. This amendment is in line with the Communication on IPP (see Chapter 5.3 "Giving consumers the Information to Decide"). This is also in line with Article 5 of the Commission's initial Proposal.*

On 6 September 2006 the final legislative text was published in the Official Journal (Ref. [L 266 26.09.2006, p. 0001-0014](#)) as follows: **Article 21 Labelling:** (2) *Member States shall ensure that the capacity of all portable and automotive batteries and accumulators is indicated on them in a visible, legible and indelible form by 26 September 2009. Detailed rules for the implementation of this requirement, including harmonised methods for the determination of capacity and appropriate use, shall be laid down in accordance with the procedure referred to in Article 24(2) no later than 26 March 2009.*

2. Introduction

In developing its recommendation for a method of implementing the capacity labelling requirements of Directive 2006/66, the EPBA has taken onboard the intent of the European Parliament as well as the comments of the European Commission.

Furthermore we have studied the final report from Bio Intelligence Services on "Establishing harmonised methods to determine the capacity of all portable and automotive batteries and rules for the use of a label indicating the capacity of these batteries" of September 2008 and noted their recommendations.

In view of the complexity of these issues which will have a significant bearing on the drafting of the legal instrument, its implementation by producers and enforcement by Member States the EPBA recommends that a simplified approach be adopted for capacity labelling of portable primary batteries.

3. EPBA Recommendations

a. Scope:

Capacity labelling for portable primary batteries would apply to the following chemistries and sizes only:

- I. Zinc Carbon batteries – those having the EN/IEC designation R(S) and containing zinc and/or ammonium chloride electrolyte.
- II. Zinc Chloride batteries – those having the EN/IEC designation R(P) and containing zinc chloride electrolyte.
- III. Alkaline Manganese batteries – those having the EN/IEC designation LR and containing potassium hydroxide electrolyte.
- IV. Sizes D, C, AA, AAA and 9V.
- V. Specifically batteries falling within the scope are designated in the EN/IEC Standards as follows: R03S, RO3P, LR03, R6S, R6P, LR6, R14S, R14P, LR14, R20S, R20P, LR20, 6F22, 6LR61.

This scope includes general purpose batteries that the consumer will find at the point of sale and according to EPBA statistics for 2007 would cover a minimum of 91% of portable primary batteries placed on the market within the EU.

The following portable primary batteries would be exempted from capacity labelling:

- I. Chemistries that do not have performance levels e.g. MAD values specified in EN/IEC Standards. Specifically, the Nickel Oxyhydroxide and Lithium Iron Disulfide chemistries are emerging technologies that account for less than 1% of battery sales today and for which there are no defined IEC tests. These technologies are intended for very specific applications, hence it is useless to compare their performance with general purpose batteries.
- II. Portable primary batteries sold without packaging.
- III. Portable primary batteries sold with equipment.
- IV. Portable primary batteries and button cells designed for special purposes such as for watches, hearing aids, etc. In this category, the consumer is very unlikely to have a choice between alternatives at the point of sale since they are slow moving products retailers don't carry alternative brands. Additionally these batteries are sold through specialist channels such as jewellery shops and hearing aid centres where battery removal and installation is carried out on the premises without the consumer exercising a choice in the battery.

b. Performance Standard:

In order to be placed on the market within the EU all batteries falling within the scope noted above shall as a minimum conform with the minimum average duration (MAD) value for all the tests noted in EN/IEC Standard 60086-2 per battery size and chemistry. Since EN/IEC standards are revised from time to time to reflect more closely developments in battery technology as well as in the marketplace, the performance standards producers must comply with may also change.

c. Capacity label:

One of the following marks shall be applied on the packaging of batteries as appropriate. The mark shall occupy a minimum size of 1cm diameter. The mark shall be printed visibly, legibly and indelibly.

[Marks to be decided]

4. Rationale Behind EPBA Recommendation

Stakeholder Intent: A simple hierarchy based on battery chemistry meets the original stated intent of the Parliament i.e., information to allow consumers to choose the most environmentally favourable option of battery at the point of sale

Enforcement: Labelling is determined on the basis of battery chemistry rather than testing per se (it does not require measurement, but is verifiable). As such, the enforcement burden for Member States is significantly reduced relative to other options and avoid risks of unfair marketing campaigns that may arise from Bio IS proposals.

Simplicity: The scheme proposed is simple, yet it is able to effectively replicate the differentiation achieved by other more complex schemes based on measurement in standard tests. This can be readily demonstrated.

Size and Location: The demands on space are considerably lower than Bio's recommendations but are otherwise consistent with the other labelling requirements in the Directive.

Coupling with International Standards: The proposal couples EU regulation with EN Standards thus adding for the first time a minimum battery performance guarantee for the consumer. This "quality assurance" dimension towards consumers within the implementing measure would likely be attractive to stakeholders and could be seen as an "eco-design" initiative.

Clarity for Consumer Understanding: By avoiding the use of appliance icons which would be potentially confusing to consumers our recommendations are likely to be the clearest in terms of consumer understanding.

Special Cases: Capacity labelling would not apply to non-standard chemistries for which EN Standards do not exist, nor to button cells, batteries sold with appliances and batteries sold without packaging.

5. Final Remarks

The EPBA has invested a great deal of time and resources to evaluate all the options available to battery producers for communicating the capacity of batteries to consumers in a simple and easily understandable form. We consulted international experts on battery performance standards to fully understand the issues to meet the Battery Directive's provision on capacity determination and marking.

From this undertaking we have also been able to introduce for the first time a dimension of quality assurance for all battery consumers within the EU. We strongly urge the European Commission and Member States to adopt this recommendation.