

EU DIRECTIVE : MAKING BATTERY LEGISLATION WORKABLE

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1. European Portable Battery Market

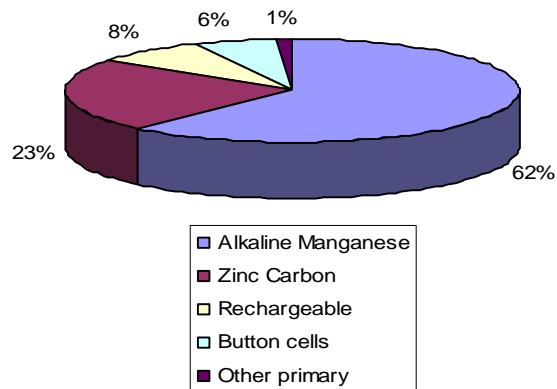
EU legislation defines three major battery categories:

- 1) Portable batteries for consumer and general purpose applications, including:
 - Primary (Alkaline Manganese, Carbon-Zinc, Lithium)
 - Rechargeable (NiMH, NiCd, Lead acid and Lithium)
 - Button cells (Silver Oxide, Zinc Air, Lithium, etc.)
- 2) Industrial batteries
(mainly Lead acid and NiCd)
- 3) Automotive and starter batteries
(mainly Lead acid)

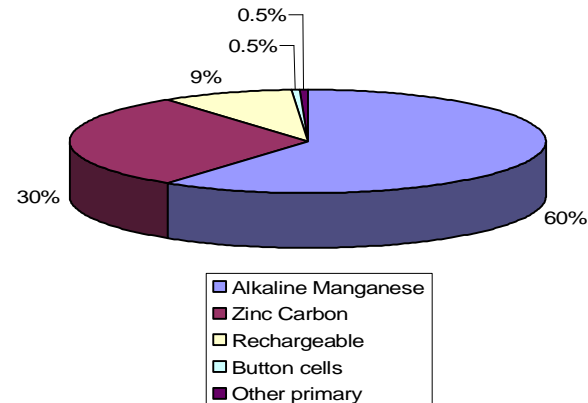
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2002 European Portable Battery Market Overview

Market share per system in % (sales in units)



Market share in % (sales in weight)



2002 Total Europe (16 countries) :
approx. 5.5 billion units equivalent to 155'000 tonnes

(Sources : EPBA and Collect NiCd for Rechargeables)

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2. Current EC Battery Directive requirements

The European legislation enforced today is based on:

- Council Directive **91/157/EEC** (March 1991) / Framework Directive
- Council Directive **93/86/EEC** (October 1993) / TA for Marking
- Commission Directive **98/101/EC** (December 1998) / TA for Mercury

Scope : batteries and accumulators containing dangerous substances like mercury, cadmium and lead

Purpose : Marking of Mercury, Cadmium and Lead-containing batteries for a separate collection and safe disposal of such batteries

Marketing restriction : only for batteries containing **mercury**

- no more than 5 ppm Hg for general purposes batteries
- no more than 2 % Hg for button cells

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3. Battery Revision Status

3.1. Commission proposal

- After 6 years of investigations and consultations, a new Draft Directive proposal (COM (2003) 723 final) was adopted on November 21, 2003 and submitted to EU Parliament



Based on extended impact assessment (ExIA)
("Impact Assessment on Selected Policy Option for Revision of the Battery Directive", Bio Intelligence, July 2003)

3.2. First reading of EU Parliament

Mr Blokland (Rapporteur) and Environmental Committee submitted an amended version of the Commission proposal to the Parliament for a first reading on April 20, 2004 plenary session.

3.3. Next steps

- Council amendments
- 2nd Reading of Parliament
- Conciliation Procedure
- Final adoption

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4. Commission Proposal, Parliament 1st reading amendments, consequences and battery industry position

4.1 Subject Matter (art. 1)

Commission : set up rules regarding marketing of batteries and prevention of waste by promoting separate collection and material recovery

Parliament :
1. Prevention of the use of heavy metals in batteries and accumulators
2. Prevention of uncontrolled disposal by collecting and recycling all batteries

Battery Industry Position

The battery industry believes that the restriction of heavy metal is not scientifically justified and goes beyond the original purpose of the directive, which should ensure the sound collection and recycling of spent batteries

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4.2 Scope (art. 2)

Commission : applied to all batteries but different requirements according to four distinct categories (General Purpose Portable, NiCd portable, Industrial and Automotive batteries)

Parliament : applied to all batteries regardless of shape, volume, weight, material composition, use and also to batteries incorporated in appliances

Battery Industry Position

The battery industry agrees with the intent **to collect all batteries** as long as the following conditions are fulfilled:

- **proven technical feasibility**
- **evident environmental benefits**
- **availability of an adequate financing scheme**

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4.3 Product requirements and prevention (art. 5)

Commission : **Mercury** content as per current 91/157/EEC Directive

- less than 5 ppm Hg for General Purpose Batteries
- less than 2 % for button cells

and battery marking for batteries containing more than 5 ppm mercury, 250 ppm cadmium and 0.4% lead

Parliament :

- **Mercury** content same as Commission proposal but additional heavy metal restrictions:

Ø **Lead (Pb)** : 40 ppm max

Ø **Cadmium (Cd)** : 20 ppm max

with possibility of exemptions according applications, like Cd for emergency lighting, etc. (Annex II a)

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4.3 Product requirements and prevention (art. 5) (cont'd)

Consequences of Parliament proposal :

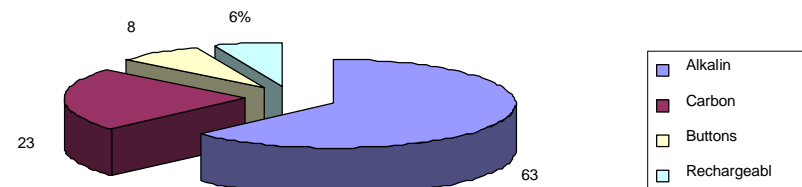
Prohibition of :

- ⇒ carbon zinc batteries, some alkaline batteries and button cells made with zinc anode because of lead content over 40 ppm
- ⇒ Portable NiCd batteries
- ⇒ Portable Lead acid batteries

This market restriction represents :

- **more than 2 billions batteries sold annually**
- **or more than 1/3 of all portable batteries sold annually**

2002 Annual Sales in Units (exploded pie represents banned battery systems)



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4.3 Product requirements and prevention (art. 5) (cont'd)

Industry position :

- Disagreement with the ban of batteries representing more than 30% of the market **without :**
 - **a sound environmental risk assessment study**
 - **an economic and social impact assessment**
- As no alternative exists for button cells, some important applications will be negatively impacted (medical equipments, watches, etc.)
- Restriction of consumer choice and price penalty particularly in new accession countries.
- Ø This proposal has not been thought properly and this restriction is disproportionate and unjustified, from environmental, consumer choice, economical and technical viewpoint.
- Ø Industry position is to remain with the Commission proposal which is scientifically and economically justified (ExIA)

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4.4. Collection targets (art. 13 and 14)

Commission :

- Ø Choice to participate in individual or collective collection schemes
- Ø Mandatory targets

- Target for portable batteries

- Ø 160g/inh/year – 4 years after implementation
- Ø possible time derogation for low population density (+3 years)
- Ø possible time and target adoption for accession countries

Parliament

- Target for portable batteries

- Ø 50% of 2 previous year sales to be reached after 4 years
- Ø 60% after 6 years
- Ø possibility for time and target adaptation

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4.4. Collection targets (art. 13 and 14) (cont'd)

Industry position :

- Targets should essentially be **measurable** and **achievable**
- Commission proposal in gr/inh/year satisfies measurability criteria but not the Parliament amendment expressed in percent (%) versus sales
- Both proposals, Commission (160g/inh/y, after 4 years) and Parliament (50% and 60% of sales after respectively 4 and 6 years) are unrealistic based on experiences gathered in several EU member states (A, B, D, NL and F).

- Ø Experiences demonstrate that collection rates are between 130 and 240 g/inh after a period of 5 to 13 years in Member States with a “European average” of 90-120g over the past 5 years.
- Ø **Battery industry proposal is : 110-120g/inh/year** after 5 years as a measurable and achievable collection target
- Ø Need a modulation possibility depending on battery consumption, population density, level of consumer awareness, collection infrastructure, etc..

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4.5. Recycling targets (art. 18 and 19)

- Commission** : - Minimum 90 % of portable collected batteries to be recycled
- Mandatory target to be met after 3 years
 § 55% recycling by average weight for “all portable batteries”
 § 65% for lead acid and 75% for NiCad

- Parliament** : - 100% of portable collected batteries to be recycled
- 55% targets, like Commission proposal for all batteries collected
 § target revision after 3 years
 § close loop system for Lead acid and NiCd
 § BATNEEC concept included (art. 15)

Industry position

- Allow to 10% non sortable batteries not to be recycled
- Battery industry agrees with the 55% as average weight, but **it should be indicative as not measurable with a sufficient accuracy.**

Main reasons are :

- § Variability of the battery product mix to be recycled
- § Problematic consolidation between different recycling processes and locations and also between different member states
- § Difficulty to identify the source of material recovery when batteries are treated in a mixed metal scrap process.

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4.6. Financing (art. 20 to 23)

Commission : Requirement for registration and financial guarantee (art. 22)

§ Guarantee could be in participation to appropriate financing scheme

§ Visible fee allowance for historical waste until 4 years after implementation (art. 23)

Parliament : - Deposit scheme needs to be set up for batteries with low collection rate and containing hazardous substances (art. 9)
- Guarantee and historical waste same as Commission proposal

Industry Position :

- Deposit scheme is irrelevant because life time of batteries, administratively complex and financially questionable.
- Industry continues to advocate **for a permanent “visible fee” for portable batteries** and not only for a transition period to cover historical waste
- If useful during 4 years why no longer useful after this period?
- “Collection fee” should cover the real collection and recycling costs and should be transparent for consumers

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4.7. Battery Marking (art. 27)

Commission : All batteries to be marked with the crossed out dustbin and chemical symbol when relevant

Parliament : - Marking of batteries containing more than restricted limit of Hg, Cd and Pb
- All batteries, accumulators and battery packs to bear information on their “capacity”

Industry position

Marking requirement should **be limited to packaging only**

- Ø because more appropriate for consumer information
- Ø it avoids the use of a specific “European label”, which will add unnecessary costs

No capacity information for primary batteries as it varies according to the drain of applications.

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5. Conclusions

- The Battery Industry is really perplexed and worried with the results of the recent Parliament vote
- The impacts of this adoption in a first reading were not measured correctly by MEPs
- Their proposal is not only unrealistic but it will make the Battery Directive unworkable and it will surely fail again when implemented in the future

To make a battery legislation workable, the Parliament should consider the following proposals for the second reading :

1. Remove drastic heavy metal restrictions leading to :

- Unjustified prohibition of battery systems
- Impact negatively many essential applications
- Hit battery consumers by limiting their choice and increasing purchases battery price for more expensive alternatives

2. Revise collection targets to be measurable and achievable

- Set up target based on facts and experiences (e.g. 120g/inh/year)
- Allow a modulation system which should be agreed with Member States.

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3. As it is evident that costs of collection, sorting and recycling should be covered to ensure a sustainable scheme:
 - Ø **Extend the use of a transitional visible fee to a permanent visible fee**
 - Ø It should be transparent for consumers being the essential actors of a successful collection
4. **Avoid non measurable mandatory targets** for collection as well as for recycling as they will generate questionable and unacceptable penalties
5. Adopt an appropriate marking to ensure correct consumer information and **propose marking on packaging** as it is the best support to reach the consumer.

Paying attention to facts and existing experiences will help and contribute to make the new Directive workable as its main purpose should be to satisfy the need of consumers and at the same time to protect the environment in an effective and sustainable way.