

## **Revision of the Batteries Directive**

### **EPBA comments on measure 9**

#### ***Setting minimum levels of recycled content***

- EPBA fully supports the principles as stated in the EU Green Deal and the new Circular Economy Action Plan which form the basis for the discussion on setting minimum levels of recycled content for battery production.
- As a starting point, it is important that the correct context is taken into account:
  - The key-question on the use of recycled content in battery production is not if it is technically possible but what is its environmental impact.
  - The various battery segments – portable, automotive and industrial – should be dealt with separately. What works for e.g. automotive batteries does not necessarily imply it works as well for the portable battery segment.
  - In order to produce quality batteries, high purified raw materials are mandatory – the use of less pure materials will result in less performing batteries which do not last that long and, as a consequence, will result in more waste. In addition to the performance aspect, high purified raw materials are also important for health and safety issues related to batteries (gassing, leaking).
- **Comments on the presentation of Öko-Institut:**
  - The environmental consequences of using content for batteries should be fully considered since it is not guaranteed that it is actually the most sustainable option. First of all, when looking at the global level and the amount of materials needed in battery production, virgin material will always be needed (which has also been identified by Öko-Institut). There is not an unlimited amount of recycled material available. As a consequence, what will be gained from an environmental point of view in the EU will be lost elsewhere in the world. The environmental assessment should also take into account the impact on non-battery related sectors which currently use recycled battery material. This requirement would have as a consequence that these sectors will no longer battery recycled material available to introduce in their processes

Secondly, it is worth noting that although the majority of portable battery recycling takes place in Europe, not all portable batteries are produced in the EU. From an environmental point of view, it does not make sense to ship recycled battery material to other parts of the world to be integrated in the battery production process. The source of the recycled material should therefore not be specified but it is important that it is available at the point of production. This means that the recycled material should not necessarily have to come from recycled batteries i.e. an open loop approach is the favoured option.

  - It indeed makes sense to take into account all materials that constitutes a battery. It is important to make a clear distinction between portable, automotive and industrial batteries. This is our assessment based on an open-loop approach. Please note that this is based on the materials and not on the proposed levels.

	baseline	also other materials	
	2020	2023	2028
Aluminium	32%	40%	45%
Steel	29%	35%	40%
Plastics	0%	10%	20%
Lead	67%	75%	80%
Nickel	0%	2%	4%
Cobalt	0%	2%	6%
Manganese	0%	0%	0%
Lithium	0%	1%	3%
Copper	41%	45%	50%
Graphite	0%	0%	0%
Cadmium	100%	100%	100%
Zinc	0%	10%	20%

- **Aluminum, nickel, copper and zinc** are probably doable because there is infrastructure.
- **Plastics** though, will really depend on the type of plastics. Realistically, only 2-3 plastics are recycled today but many types are used for portable battery production.
- **Steel** may be an issue because battery grade steel is very controlled as the steel plays a role in preventing contaminants that cause gassing

- Very limited amounts of **lead** and **cobalt** (ppm levels) are used in portable batteries. It will be very difficult to integrate these very low levels into the battery supply chain process and to assess that recycled material has effectively been used.
- **Lithium** is not recycled which raises the question on where to get the recycled lithium

- o If the recycled content must come from batteries, *i.e.* closed loop, this is essentially impossible outside the steel, zinc (and nickel for portable rechargeable). Chasing the other materials to minute levels will be too complex and will not bring any measurable benefit.
- o We do have questions on the values which are used in the “baselining” scenario: for example aluminum at 32% and steel at 29% recycled content today are not correct for battery grade materials used in portable batteries. The same comment applies for lead and copper.

The feasibility of recycling of key battery ingredients therefore has to be verified with raw material producers and/or recyclers. At this point, it is totally unclear whether this will actually work.

Arbitrary dates are mentioned: 2023 & 2028. These need to be substituted with dates which are actually build on substantial data.

- o The approach to calculate the recycled content on the level of the individual materials is too rigid for the portable battery segment. It will result in very complex and burdensome tracing & documentation requirements while for some materials the benefits will be very limited.
- o Rather than detailed material targets, one scientifically underbuilt material ratio applied to the total portable battery would be a better approach. It will give more flexibility to the producer while respecting the diverse technologies.

#### EPBA position

- A ‘one-size fits all’ methodology does not work. A distinction should be made between portable batteries and the other battery segments.
- The recycled content should be based on an ‘open-loop’ which will allow for the most sustainable approach on using recycled materials for portable batteries.
- One scientifically underbuilt recycled material rate should be set rather than too rigid and detailed material targets.

#### About EPBA

The EPBA advocates the portable power solutions of its members working with regulators, NGOs and other stakeholders to create an environment of harmonized and fair legislation so costumers may enjoy efficient and safe batteries to be conveniently used and recycled.