

## Towards the “greenest” batteries in the world? The EU Commission’s proposal for a regulation concerning batteries and waste batteries

### 1. Background and objectives of the proposed regulation

Sustainable battery development and production is key to the EU’s clean energy and climate neutrality objectives, as they are expected to contribute to the uptake of electric vehicles. For this reason, the use of batteries is set to exponentially increase as a result of the EU Green Deal initiatives<sup>1</sup>. On 10 December 2020, the EU Commission (the **EC**) adopted a proposal for a new Regulation concerning batteries and waste batteries<sup>2</sup> (the **Proposed Regulation**), with Maroš Šefčovič, the European Commission’s vice-president in charge of foresight and inter-institutional relations, describing the proposal as containing the “*mandatory requirements for the greenest, safest and most sustainable batteries on this planet*”.

For companies wishing to comment on the Proposed Regulation, the document is open for feedback until 1 March 2021, while its entry into force is currently scheduled for 1 January 2022.

By replacing the current Batteries Directive<sup>3</sup> with a regulation, the EC wishes to establish a more harmonised regulatory framework, with direct requirements for economic operators and a uniform implementation across all Member States. Indeed, no transposition will be required in national law (although domestic penalty regimes for non-compliance and enforcement will remain at national level), thus ensuring swifter implementation across the EU.

As is already the case under the Batteries Directive, the Proposed Regulation will apply to all batteries<sup>4</sup>, including those incorporated into other products or manufactured outside the EU.

In particular, the Proposed Regulation aims to achieve the interlinked objectives of:

- ensuring a level playing field and addressing the lack of incentives for investing in production capacity for sustainable batteries;
- promoting a circular economy by addressing the shortcomings of the recycling markets for batteries; and
- addressing the environmental and social risks related to batteries, such as: (i) the lack of transparency on sourcing raw materials; (ii) the presence of hazardous substances; and (iii) the untapped potential for offsetting the environmental impacts of battery life cycles.

Critically, the Proposed Regulation also seeks to introduce due-diligence requirements for economic operators placing rechargeable industrial batteries and electric-vehicle batteries on the EU market. In this sense, the Proposed Regulation continues a broader trend of increased supply chain/value chain due diligence in public policy to implement the commitments under the Paris Agreement and UN Sustainable Development Goals and related objectives<sup>5</sup>.

Similar measures are already embedded in other pieces of EU law. For instance, the Non-Financial Reporting Directive<sup>6</sup> imposes an obligation on certain large public-interest companies to describe their due diligence processes with respect to non-financial issues, including environmental matters. Further, the EU Conflict Minerals Regulation<sup>7</sup> requires EU-based companies importing tin, tantalum, tungsten and gold potentially originating from conflict-affected and high-risk areas to ensure that the metals and minerals they buy are sourced responsibly and have not been produced in a way that funds conflict-related illegal practices. As tin is used in certain lead batteries, this due diligence obligation may also affect the battery sector. Likewise, the Timber Regulation<sup>8</sup> foresees a due diligence requirement for EU traders who place timber products on the EU market for the first time<sup>9</sup>, and both the EU and UK are considering introducing requirements to address the deforestation risk in commodity supply chains. The EU has been consulting on a potential regulation<sup>10</sup> requiring products within the EU to come from deforestation-free supply chains<sup>11</sup>, and the UK government has recently consulted on new legislation that would make it illegal to use commodities sourced from illegally deforested land.

01\_ The Proposed Regulation is an integral part of the EU’s Green Deal and builds on the EC’s Strategic Action Plan on Batteries, the new Circular Economy Action Plan, the new Industrial Strategy for Europe and the Sustainable and Smart Mobility Strategy.

02\_ Proposal for a Regulation of the European Parliament and of the Council concerning batteries and waste batteries, repealing Directive 2006/66/EC and amending Regulation (EU) 2019/1020.

03\_ Directive 2006/66/EC of the European Parliament and of the Council of 6 September 2006 on batteries and accumulators and waste batteries and accumulators and repealing Directive 91/157/EEC.

04\_ Except for batteries in: (a) equipment connected with the protection of Member States’ essential security interests, arms, munitions and war material, with the exclusion of products that are not intended specifically for military purposes; and (b) equipment designed to be sent into space.

05\_ See for instance the EU Sustainable Finance Action Plan, the UN Treaty on Business and Human Rights (a second revised draft was published in August 2020) and French Duty of Vigilance Act of February 2017

06\_ Directive 2014/95/EU of 22 October 2014 amending Directive 2013/34/EU as regards disclosure of non-financial and diversity information by certain large undertakings and groups.

07\_ Regulation (EU) 2017/821 of the European Parliament and of the Council of 17 May 2017 laying down supply chain due diligence obligations for Union importers of tin, tantalum and tungsten, their ores, and gold originating from conflict-affected and high-risk areas (entered into force on 1 January 2021).

08\_ Regulation (EU) No 995/2010 of the European Parliament and of the Council of 20 October 2010 laying down the obligations of operators who place timber and timber products on the market.

09\_ More requirements for due diligence may be on the way. As discussed in our article, the European Commission is currently consulting on introducing cross-sectoral environmental and human rights due diligence supply/value chain requirements as part of their focus on sustainable corporate governance, in line with Action 10 of the Sustainable Finance Action Plan.

10\_ The details of the initiative are available at: <https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12137-Deforestation-and-forest-degradation-reducing-the-impact-of-products-placed-on-the-EU-market>

11\_ The idea of supply-chain environmental due-diligence is also included in the Road Map Proposed by the EU Commission for a new EU Strategy for Sustainable Textiles. The details of the initiative are available at:

<https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12622-EU-strategy-for-sustainable-textiles>

## 2. Sustainability, safety and labelling requirements for placing batteries on the market or into service

The Proposed Regulation regulates a number of new aspects related to the sustainable production and use of batteries, by laying out sustainability, safety and labelling requirements that batteries must meet before being placed on the market. The manufacturer or the other responsible economic operator must verify the product's conformity with those requirements, before a battery is placed on the market or put into service<sup>12</sup>. Since the Proposed Regulation will be added to the list of Union harmonisation legislation, batteries will be deemed to be "placed on the market" when they are made available on the EU Market for the first time. An enhanced conformity assessment procedure is foreseen for the requirements governing carbon footprint, recycled content and due diligence policies.

To integrate on-going and foreseen changes in the use of batteries, the Proposed Regulation makes changes to the classification and definition of battery categories as well as battery use:

- "electric vehicle batteries" become a specific category, subject to a number of new obligations described below;
- within the existing category of "portable batteries", the Proposed Regulation identifies "light means of transport" (eg electric scooters and bikes) where specific obligations are contemplated;
- the increased use of batteries in electrical systems is taken into account. The so-called "stationary battery energy storage system" refers to batteries used for electricity storage and injection into public grids which will now have to meet specific requirements. Storage systems used by a growing number of households in addition to solar panels will be classified as "industrial batteries", with new obligations being applied.

Against this background, new obligations include:

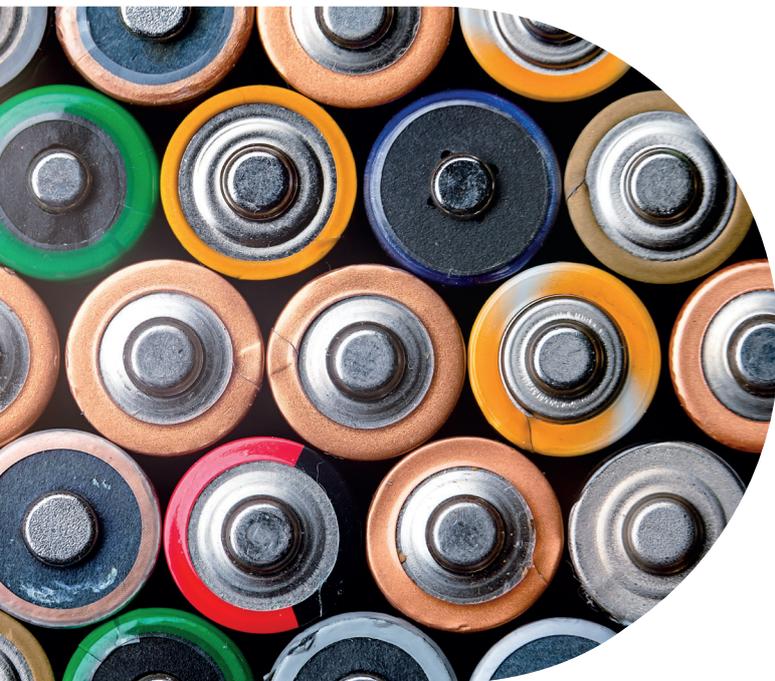
- (1) **Restrictions on the use of hazardous substances in batteries:** the Proposed Regulation increases the restrictions on the use of hazardous substances in batteries in order to protect human health and the environment and to reduce the presence of such substances in waste.

First, the Proposed Regulation introduces further restrictions in addition to those set out in Annex XVII of the Regulation (EC) No 1907/2006 (the **REACH Regulation**), ie batteries must not contain mercury and cadmium unless they comply with certain conditions (set out in Annex I to the Proposed Regulation).

Second, the EC will request that the European Chemicals Agency (the **ECHA**) create a restriction dossier pursuant to Annex XV of the REACH Regulation, where it considers any substance present throughout a battery's lifecycle to pose a "risk" to human health or the environment "that is not adequately controlled and needs to be addressed on a Union-wide basis"<sup>13</sup>. The ECHA will provide the EC with the opinions of the Committees for Risk Assessment and Socio-economic Analysis on the restrictions suggested and, if the EC concludes that the relevant substance actually poses an "unacceptable risk to human health or the environment"<sup>14</sup> of EU-wide relevance, it will amend the list of restricted substances to include that substance. Interestingly, the restrictions do not apply to the use of substances in scientific research and the development of batteries.

It is yet to be seen what the EC and Member States will agree is meant by a "not adequately controlled" risk, and which substances will be targeted. However, the term resonates with the language used in the REACH Regulation and as such should reflect ECHA's existing assessments under Annex XV to that Regulation.

These provisions<sup>15</sup> should lead to more clarity and consistency in the EU legislation on chemicals – an objective already pursued by the new EU Strategy for Sustainable Chemicals – for two reasons. First, the fact that the ECHA is taking responsibility<sup>16</sup> for restrictions specifically related to batteries could suggest that the Agency intends to engage more actively in the restriction processes under other sector-specific legislation that it currently does not administer. This could in turn address existing overlaps and gaps in the EU chemicals *acquis*<sup>17</sup>, particularly as chemical safety assessments are initiated under various pieces of legislation and carried out by various EU agencies, possibly leading to diverging opinions<sup>18</sup>.



<sup>12</sup> Article 17 of the Proposed Regulation

<sup>13</sup> Article 71(1) of the Proposed Regulation

<sup>14</sup> Article 6(2) of the Proposed Regulation

<sup>15</sup> Article 6 and Article 71 of the Proposed Regulation

<sup>16</sup> The Proposed Regulation foresees "an average of one additional restriction (or other risk management measure) yearly" and this will significantly increase the work stream for ECHA. For this reason, the EC has already allocated extra budget and personnel to the ECHA, including to identify relevant substances for future regulatory risk management and to study how the battery industry manages its hazardous chemicals

<sup>17</sup> For instance gaps and overlaps between Food Contact Materials Directive and REACH Regulation and overlaps in legal requirements between the CLP Regulation, the Detergents Regulation and/or the Cosmetic Products Regulation have been exposed, and the EC has already started to work on streamlining the hazard/risk assessment by ECHA and EFSA to better ensure the convergence of conclusions (see page 8-9 of the EU Commission's Findings of the Fitness Check of the most relevant chemicals legislation (excluding REACH) and identified challenges, gaps and weaknesses

<sup>18</sup> See page 15 of the EU Strategy for Sustainable Chemicals and page 7 of the EU Commission's Findings of the Fitness Check of the most relevant chemicals legislation (excluding REACH) and identified challenges, gaps and weaknesses

Second, the proposed restrictions for substances present in batteries will most likely be incorporated in Annex XVII to the REACH Regulation, thus allowing for more clarity as to which restrictions apply specifically to (substances present in) batteries. A certain degree of uncertainty could remain on the requirements for batteries in vehicles that are subject to the Directive on end-of-life vehicles<sup>19</sup> (the **ELV Directive**). Whilst the existing Batteries Directive already includes a prohibition<sup>20</sup> against placing batteries on the market if they exceed certain mercury or cadmium content limits, the ELV Directive contains product requirements, not only for cadmium and mercury, but also for lead and hexavalent chromium<sup>21</sup>.

It is yet to be seen whether these additional lead and chromium product requirements will also be left out of the Proposed Regulation and remain part of the ELV Directive. The Proposed Regulation does not include lead and chromium on its list of restricted substances under Annex I – only cadmium and mercury. However, restrictions for lead and chromium could very well be introduced by the EC pursuant to Article 6(2) of the Proposed Regulation, should it consider that they pose an unacceptable risk to human health or the environment that needs to be addressed on an EU-wide basis.

However, while the continued inclusion of lead and chromium thresholds under the ELV Directive is not affected by the Proposed Regulation<sup>22</sup>, this will largely depend on the outcomes of two different public consultations<sup>23</sup>:

- The stakeholder consultation on the exemption under Annex II, 5(b) of the ELV Directive, which aims at evaluating the exemption in light of the technical and scientific progress and closed on 8 December 2020;
- The public consultation<sup>24</sup> on the revision of the ELV Directive, expected in the second quarter of 2021, which aims inter alia at ensuring better consistency of the ELV Directive with the EU Green Deal, the REACH Regulation and the EU waste legislation.

## (2) **Mandatory supply chain due diligence requirements:**

the Proposed Regulation introduces a mandatory due diligence obligation applicable to economic operators placing rechargeable industrial batteries and electric-vehicle batteries on the EU market. This arguably also covers batteries manufactured outside the EU. However, the Market Surveillance Regulation<sup>25</sup> states that, even in the case of products manufactured outside the EU, a EU-based economic operator - be that the importer, the manufacturer's authorised representative or, in case of products offered for sale online, the fulfilment service provider - must take responsibility for ensuring compliance with the Union harmonisation legislation,

including with the supply chain due-diligence requirements. The exact scope of the economic operator's responsibility will depend on its role in the supply chain<sup>26</sup>. While manufacturers should retain ultimate responsibility for products' compliance<sup>27</sup>, and ensure that authorised representatives and fulfilment service providers have the appropriate means to fulfil their tasks<sup>28</sup>, the latter do not have to take corrective actions or mitigate risks themselves, but merely ensure that the necessary action is undertaken, eg by verifying that the manufacturer has done so<sup>29</sup>.

Under the Proposed Regulation, as of 1 January 2023<sup>30</sup> economic operators that place rechargeable industrial batteries and electric-vehicle batteries with internal storage and capacity above 2 kWh on the market must:

- (a) adopt a company due diligence policy for the supply of (i) cobalt; (ii) natural graphite; (iii) lithium; (iv) nickel; and (v) chemical compounds based on those materials, in accordance with relevant OECD Standards<sup>31</sup>. This includes, refraining from illicitly concealing the origin of raw materials; ensuring not to facilitate the commission of human rights abuses associated with the extraction, transport or trade of minerals; interrupting engagement with suppliers where there is reasonable risk that they are linked to the commission of serious abuses; contributing to the effective elimination of money laundering and bribery across the supply chain;
- (b) operate a system of controls and transparency over the supply chains and support such systems with documentation regarding: (i) the description of the raw material; (ii) the name and address of the supplier; (iii) the country of origin of the raw material and market transactions throughout the supply chain; and (iv) the quantity of raw material present in the battery;
- (c) hold directors responsible for overseeing and recording those schemes and establish a grievance system;
- (d) incorporate their supply chain policies into contracts and agreements with supplies;
- (e) based on the information gathered through the due diligence policy, identify and assess the adverse impacts associated with the environmental and social risks in their supply chains and implement a strategy to respond there to in accordance with OECD standards;
- (f) have their supply chain due diligence schemes verified by a certified service provider (entitled to make recommendations) and make their verification reports available to market surveillance authorities;
- (g) make their supply chain due diligence policies and the information gained pursuant to them available to clients and to the public.

19\_Article 4(2)(a), Directive 2000/53/EC of the European Parliament and of the Council of 18 September 2000 on end-of-life vehicles

20\_Article 4 of Directive 2006/66/EC

21\_Annex II sub 5 and 16, Directive 2000/53/EC of the European Parliament and of the Council of 18 September 2000 on end-of-life

22\_Notably, Annex I, sub 2 states that the cadmium restrictions foreseen in the Proposed Regulation do not apply to (batteries in) vehicles covered by the ELV Directive.

23\_Further, the 5(a) exemption was subject to an expiry date is foreseen for vehicles type approved after 1 January 2019.

24\_The details of the initiative are available at: <https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12633-Revision-of-EU-legislation-on-end-of-life-vehicles>

25\_Regulation (EU) 2019/1020 of the European Parliament and of the Council of 20 June 2019 on market surveillance and compliance of products and amending Directive 2004/42/EC and Regulations (EC) No 765/2008 and (EU) No 305/2011, OJ L 169, 25.6.2019, p. 1–44

26\_Page 8 of Draft Guidelines for the practical implementation of Article 4 of Regulation (EU) 2019/1020 on market surveillance and compliance of products, for the purposes of market surveillance authorities and economic operators

27\_Rectal (12) of the market Surveillance Regulation

28\_Article 5 of the Market Surveillance Regulation and page 4 and 11 and of the Guidelines for the practical implementation of Article 4 of Regulation (EU) 2019/1020 on market surveillance and compliance of products, for the purposes of market surveillance authorities and economic operators

29\_Page 7 and of the EC's draft Guidance on Article 4 of the Market Surveillance Regulation.

30\_The supply chain due diligence obligation enters into force 12 months after the entry into force of the Proposed Regulation, which is currently scheduled for 1 January 2022.

31\_Model Supply Chain Due Diligence Policy, Annex II to the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas.

However, these due diligence obligations for individual economic operators would be lifted if the latter demonstrate compliance with a collective supply chain due diligence scheme recognised by the EC.<sup>32</sup> Governments, industry associations and groupings of interested associations may indeed apply to the EC to have their collective supply chain due diligence schemes recognised as compliant with the requirements of the Proposed Regulation. The EC will lay out the criteria for the recognition of collective schemes. This has the potential to create industry or sector wide standardised approaches to diligence which would be welcomed by many.

- (3) **Carbon footprint:** electric vehicle batteries and rechargeable industrial batteries will need to fulfil progressive targets related to their carbon footprint. Namely, they will need to: (i) have a declaration concerning their carbon footprint by 1 July 2024; (ii) classify these batteries in accordance with the carbon footprint performance classes by 1 January 2026; (iii) meet maximum life-cycle carbon footprint thresholds by 1 July 2027. The EC will assess such footprint in compliance with the latest version of the EC Product Environmental Footprint (PEF) method<sup>33</sup>, relevant Product Environmental Footprint Category Rules and international agreements in the area of life cycle assessment. In particular, the calculation should be based the cost of material, energy, and auxiliary materials (particularly the electronic components and the cathode materials) used in a plant to produce a specific battery model. Performance classes will then be identified depending on the distribution of the values of the batteries' carbon footprint declarations placed on the EU Market<sup>34</sup>.
- (4) **Recycled raw materials:** industrial batteries, electric vehicle batteries and automotive batteries will need to meet progressive targets for minimum recycled content of cobalt, lead, lithium and nickel.
- (5) **Performance and durability requirements:** as of 1 January 2026, portable batteries of general use and rechargeable industrial batteries will need to meet the minimum electrochemical performance and durability parameters established by the EC. Portable batteries of general use may only be placed on the market if they meet such values.
- (6) **Green public procurement:** when procuring batteries or products containing batteries, contracting authorities must include technical specifications and award criteria to ensure that a product is chosen from among products with significantly lower environmental impacts over their lifecycle.
- (7) **Labelling and information requirements:** from 1 January 2027, batteries must be labelled in such a way as to provide information on their lifetime, charging capacity, requirements on separate collection, presence of hazardous substances and safety risks. A QR code must provide information on the battery's main characteristics and link to a common Electronic Exchange System containing 'Battery Passports' – a novel mechanism for traceability and management of large batteries.

<sup>32</sup> Article 72 of the Proposed Regulation.

<sup>33</sup> Available at: [https://eplca.jrc.ec.europa.eu/permalink/PEF\\_method.pdf](https://eplca.jrc.ec.europa.eu/permalink/PEF_method.pdf) available. The list of characterization factors to be used is available at <https://eplca.jrc.ec.europa.eu/EnvironmentalFootprint.html>

<sup>34</sup> Page 4 and 5 Annex II to the Proposed Regulation, available at: file:///C:/Users/brutillm/Downloads/090166e5d6e5d26d%20(5).pdf

### 3. Requirements for the collection, treatment and recycling of waste batteries

The Proposed Regulation also aims to ensure a more circular battery chain by making producers and other economic operators responsible for the management of end-of-life batteries and by removing barriers to the repurposing and remanufacturing of batteries. Notably it foresees:

- (1) **Extended producer responsibility:** when batteries are made available on the EU market for the first time, producers need to ensure the attainment of their waste management obligations, including the obligations to promote, finance and organise the separate collection and the treatment of waste batteries, to report to the competent authority and to provide information on the end-of-life aspects of batteries.
- (2) **Minimum collection rates:** producers must ensure that all automotive, industrial and electric vehicle batteries are collected and meet progressive collection targets for portable batteries.
- (3) **Treatment and recycling:** once collected, waste batteries may not be landfilled or incinerated and must all enter a recycling operation. Progressive minimum recycling efficiencies are foreseen for cobalt, copper, nickel, lead and lithium.
- (4) **Repurposing and remanufacturing:** producers must:
  - (i) provide repurposing operators with access to the battery management system to determine the state of health of a battery;
  - (ii) provide information to downstream users on the prevention and safe management of waste batteries;
  - (iii) report the number of batteries placed on the market and collected for recycling. On the other hand, repurposing operators must report on the number of batteries recycled and, in order to demonstrate that a battery is no longer waste, be able to provide competent authorities and end users with: (i) evidence of the state of health; (ii) certainty of further use; and (iii) evidence of appropriate protection against damage during transport.

