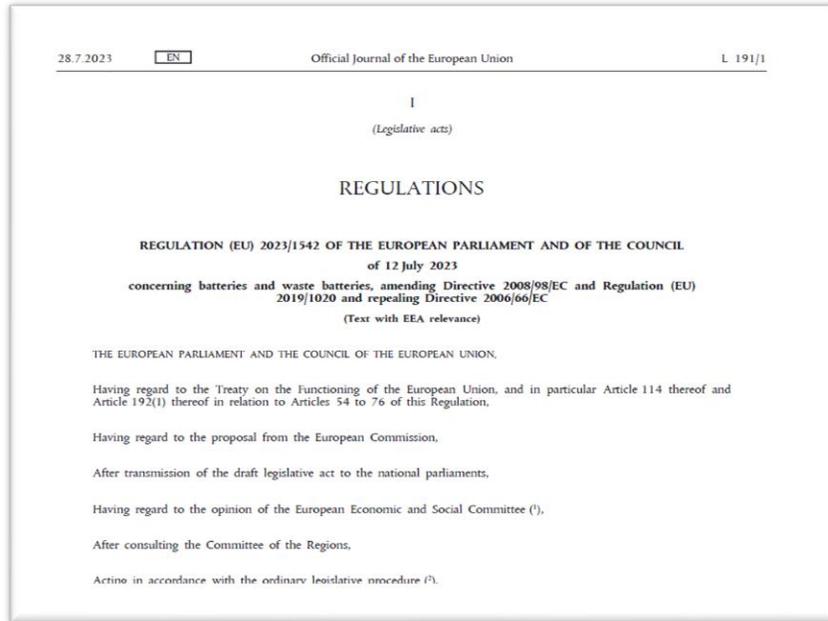


The WTO Compatibility of the EU Batteries Regulation

Dr. FANG Meng Mandy
Assistant Professor of Law
City University of Hong Kong

EU Batteries Regulation (EUBR)

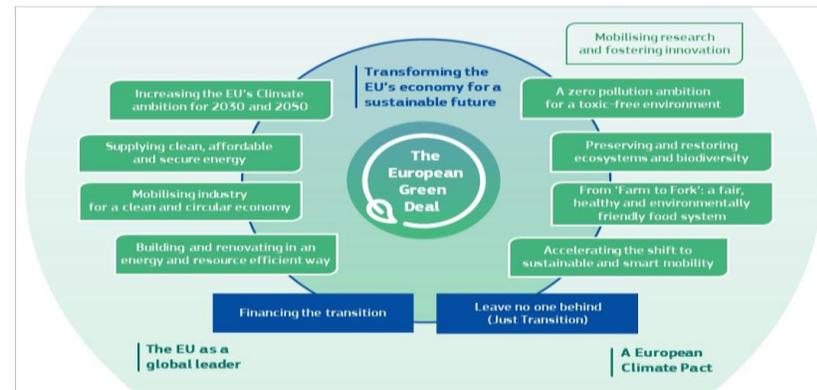


- The proposal of EUBR was presented in December 2020;
- The EUBR entered into force on 17 August 2023
- The EUBR is set to **govern the entire product life cycle of batteries, covering design, production, and disposal stages to ensure sustainability, such as carbon footprint, recyclability and others.**
- The EUBR has three objectives:
 - (1) strengthening the functioning of the internal market (including products, processes, waste batteries, and recyclates) by ensuring a level playing field through a common set of rules;
 - (2) promoting a circular economy; and
 - (3) reducing environmental and social impacts throughout all stages of the battery life cycle.

03/11/2020 Circular Economy Action Plan



11/12/2019 European Green Deal



10/03/2020 New Industrial Strategy



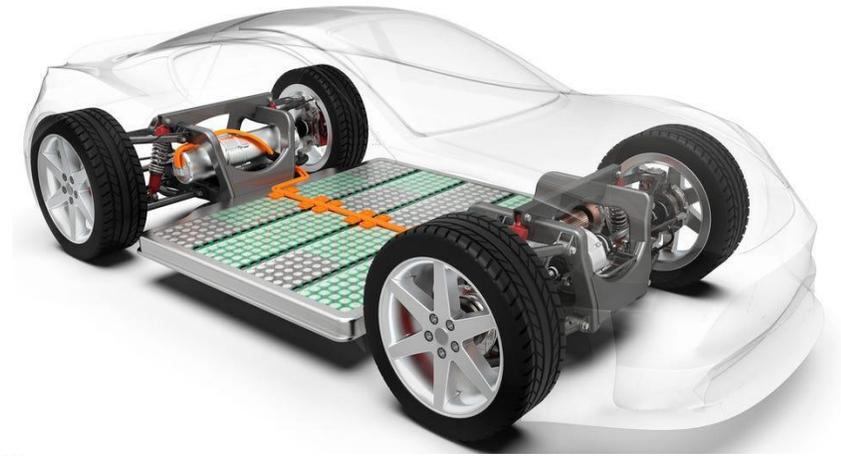
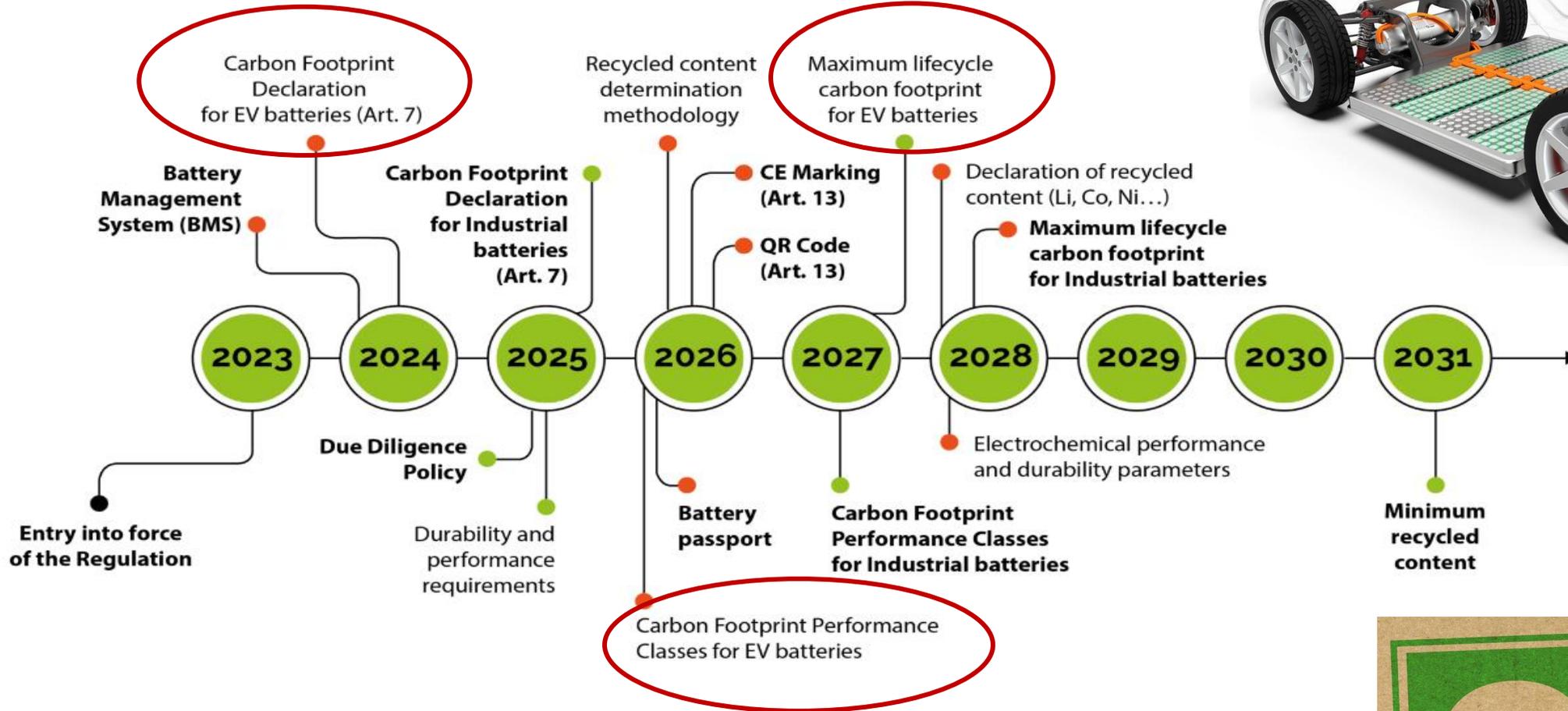
Research Questions

- What are the EUBR's carbon footprint requirements on electric vehicle (EV) batteries?
- What are the WTO obligations that are applicable to the EUBR's carbon footprint requirements and how do they interact?
- How can the EU align the BR with the WTO rules and increase its climate ambition?



Stage One

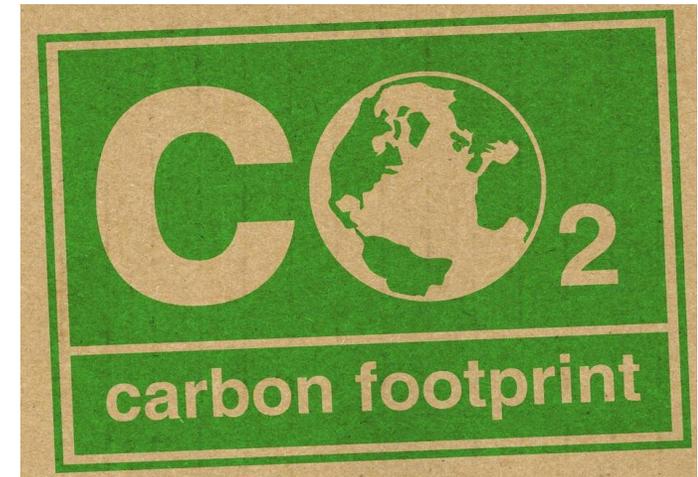
Stage Three



Stage Two

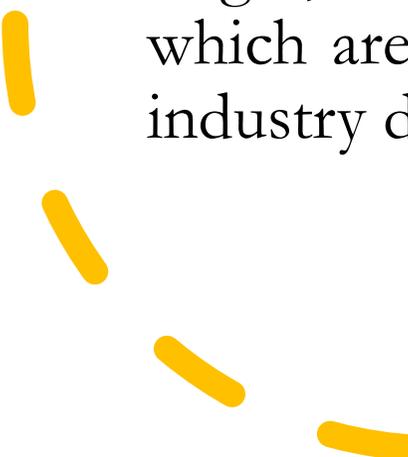
The timeline of the EUBR implementation

Source: <https://www.flashbattery.tech/en/new-european-battery-regulation/#:~:text=The%20European%20Battery%20Regulation%20aims,waste%20battery%20recovery%20by%20manufacturers.>





Calculating EV battery carbon footprints is **NOT EASY**

- The exact amount of carbon emitted in the process of making an EV battery is highly variable, depending on the energy mixes and energy requirements.
 - There is no internationally agreed-upon methodology for calculating, verifying EV battery carbon footprint or classifying products based on their carbon intensity.
 - The increasingly expansive EV battery supply chain separates production into stages, and these stages can be completed in different locations, some of which are in the least developed countries with limited availability of battery industry data.
- 

Application of WTO Rules—The TBT Agreement

1. Are the EU Carbon Footprint Requirements Technical Regulations?

The TBT Annex 1.1 defines a “technical regulation” as a “document which lays down **product characteristics or their related processes and production methods**, including the applicable administrative provisions, with which compliance is **mandatory**.”

My analysis: since the amount of carbon emissions emitted during the EV battery manufacturing process can be measurable, and the carbon footprint can be “objectively” established and thus deemed a “characteristic” of EV batteries, the measures constitute TR.

2. Are the EU Carbon Footprint Requirements Consistent With the TBT Rules?

- (a) Are the EU carbon footprint requirements consistent with Article 2.1 of the TBT Agreement?

The TBT Agreement Article 2.1 provides, “Members shall ensure that in respect of technical regulations, products imported from the territory of any Member shall be accorded **treatment no less favourable** than that accorded to like products of national origin and to **like products** originating in any other country.”

My analysis: (1) characterizing products that bear identical or largely similar physical characteristics but vary in carbon emissions as “unlike” seems to be unconvincing unless consumers’ preferences suggest otherwise;

(2) Since the EU has a higher share of clean electricity in the power mix to produce EV batteries with a lower carbon footprint, the enactment of the BR will treat foreign-like products not as favorably as the EU’s.

(3) Whether the regulatory distinction the technical regulation draws between EV batteries based on their carbon footprints is legitimate becomes the key issue.

(4) More attention should be paid to the requirement of being ‘evenhanded’.

(b) Are the EU carbon footprint requirements consistent with Article 2.2 of the TBT Agreement?



The TBT Agreement Article 2.2 provides, “Members shall ensure that technical regulations are not prepared, adopted or applied with a view to or with the effect of creating unnecessary obstacles to international trade. For this purpose, technical regulations **shall not be more trade-restrictive than necessary to fulfil a legitimate objective**, taking account of the risks non-fulfilment would create. Such legitimate objectives are, inter alia: national security requirements; the prevention of deceptive practices; protection of human health or safety, animal or plant life or health, or the environment. In assessing such risks, relevant elements of consideration are, inter alia: available scientific and technical information, related processing technology or intended end-uses of products.”

My analysis:

- (1) What are the legitimate objectives of the Battery Regulation, and what risks would their nonfulfillment create?
 - Twofold: environmental and economic/industrial;
 - The risks and consequences of not fulfilling the climate/environmental goals can be grave.
- (2) What degree of contribution can the EU Battery Regulation make to achieve a legitimate objective?
 - It depends on several factors (stringency of requirements, compliance burden, etc.)
- (3) Is the EU Battery Regulation trade-restrictive, and to what degree?
 - It depends on the specific design and implementation.
 - The restrictiveness will gradually increase over the implementation stages.
- (4) Are there possible alternative measures?
 - Reducing the granularity of data?
 - Less rigidity with calculating methodology?



Brussels, XXX
[...] (2024) XXX draft

ANNEX

ANNEX

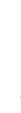
to the

Commission Delegated Regulation

supplementing Regulation (EU) 2023/1542 of the European Parliament and of the Council by establishing the methodology for the calculation and verification of the carbon footprint of electric vehicle batteries

2.4. Electricity modelling

- The carbon footprint of the consumption of electricity shall be that of **the national average electricity consumption mix**, which shall be determined in accordance with section 2.3.3.
- By way of derogation from the first paragraph, the carbon footprint of **directly connected electricity** shall apply in accordance with section 2.4.1.



The electricity is supplied to the process in question from a production asset within the same installation or via a direct line.

Carbon emission factors in Chinese provincial power grids in 2010, 2012, 2018 and 2020

1. The use of the national average electricity consumption mix would overlook regional/provincial divergences in power grid emissions, which can be particularly relevant for geographically large countries, such as China and Indonesia.

表 1 中国 2010、2012、2018及 2020省级电网排放因子 (kgCO₂/kWh)

省份	2010 年	2012 年	2018 年	2020 年
辽宁	0.836	0.775	0.722	0.91
吉林	0.679	0.721	0.615	0.839
黑龙江	0.816	0.797	0.663	0.814
北京	0.829	0.776	0.617	0.615
天津	0.873	0.892	0.812	0.841
河北	0.915	0.898	0.903	1.092
山西	0.88	0.849	0.74	0.841
内蒙古	0.85	0.929	0.753	1.000
山东	0.924	0.888	0.861	0.742
上海	0.793	0.624	0.564	0.548
江苏	0.736	0.75	0.683	0.695
浙江	0.682	0.665	0.525	0.532
安徽	0.791	0.809	0.776	0.763
福建	0.544	0.551	0.391	0.489
江西	0.764	0.634	0.634	0.616
河南	0.844	0.806	0.791	0.738
湖北	0.372	0.353	0.357	0.316
湖南	0.552	0.517	0.499	0.487
重庆	0.629	0.574	0.441	0.432
四川	0.289	0.248	0.103	0.117
广东	0.638	0.591	0.451	0.445
广西	0.482	0.495	0.394	0.526
海南	0.646	0.686	0.515	0.459
贵州	0.656	0.495	0.428	0.42
云南	0.415	0.306	0.092	0.146
陕西	0.87	0.769	0.767	0.641
甘肃	0.612	0.573	0.491	0.46
青海	0.226	0.232	0.26	0.095
宁夏	0.818	0.779	0.62	0.872
新疆	0.764	0.79	0.622	0.749

Source: <https://www.ndrc.gov.cn/xxgk/zcfb/tz/202208/P020220819537055381532.pdf>

renewablesnow.com/news/chiles-codelco-awards-15-year-ppas-for-renewable-power-supply-850409/

Renewables Now

Solar

Chile's Codelco awards 15-year PPAs for renewable power supply

Chilean state-owned copper miner Codelco has awarded power purchase agreements (PPAs) to three companies in its public tendering procedure, procuring a total of 1.8 TWh of renewable electricity annually for 15 years.

Latin America-focused renewables operator Atlas Renewable Energy secured a PPA for the supply of 375 GWh/year, Chilean utility Colbun won for 1,100 GWh/year, and Canada's Innergex Renewable Energy Inc (TSE:INE) took home a contract for 350 GWh annually, Codelco said on Friday.

The 15-year PPAs will enter into force on January 1, 2026. From then on, over 85% of Codelco's electricity will come from 100% renewable sources, the miner said.

Codelco's CEO, Ruben Alvarado, said that the contracts will be backed by both



Colbun's PV park. Image by Colbun (www.colbun.cl)

recessary.com/en/news/id-market/indonesia-state-utility-steps-up-supply-of-renewable-energy-certificates

RECESSARY News Exclusive Market Insight ESG Event

SHARE **Indonesia state utility steps up supply of renewable energy certificates**

Market January 25, 2022 EN / 繁 / 简

PT Perusahaan Listrik Negara (PT PLN), Indonesia's state-owned electricity company, and PT MAS Sumbiri, a multinational firm engaged in the production of clothes, have signed a contract for the purchase of Renewable Energy Certificates (REC), demonstrating PT PLN's commitment to increasing the legality of the use of new and renewable energy through the provision.

By purchasing this 1,385kVA REC, PT MAS Sumbiri contributed to the government's effort to accelerate the accomplishment of Indonesia's new renewable energy mix target of 23% by 2025.

The contract was signed by the Manager of PLN UP3 Semarang, Eric Rossi Priyo Nugroho, and the General Manager of PT MAS Sumbiri, Sajith Danansooriya.

As stated by Eric Rossi Priyo Nugroho, REC is a form of PLN's commitment to achieving Indonesia's Net Zero Emissions target by 2060.

2. The recognition of directly connected electricity but rejection of other widely-used renewable energy development tools, such as the power purchase agreement (PPA) and green electricity certificates (known as renewable energy certificates, energy attribute certificates, or guarantees of origin) would considerably narrow the options of battery companies in decarbonizing their production process.

International Renewable Energy Certificates (I-RECs)

In countries outside of Europe and North America, International Renewable Energy Certificates (I-RECs) allow companies to credibly document renewable energy consumption. This global standard is a recognised tool to report greenhouse gas emissions reduction in a growing number of countries in Asia, Africa, and Latin America.



The Main Takeaways:

- The EU BR represents pioneering and well-intentioned legislative efforts to decarbonize and ‘clean up’ the battery value chains within and outside Europe;
- Complying with the WTO rules, particularly the TBT Agreement Article 2.2, might be challenging (several specific trade concerns have been raised) —→ an unnecessarily restrictive regulation would overly burden producers and slow down innovation in the sector.
- Actionable recommendations:
 - Carefully and periodically adjust the regulatory scope to account for the technological changes in the EV battery sector and avoid being overly inclusive or restrictive;
 - Accurately and thoroughly assess the trade restrictiveness of the Regulation, such as by seeking inputs from industry stakeholders inside and outside the EU;
 - Use the TBT Committee as a multilateral platform to engage in constructive dialogue, foster cooperation among WTO Members, and settle trade concerns.

A more detailed discussion can be found:

53 Env't L. Rep. 10590 (2023)

Regulating EV Batteries' Carbon Footprint: EU Climate Ambition or Green Protectionism?

REGULATING EV BATTERIES' CARBON FOOTPRINT: EU CLIMATE AMBITION OR GREEN PROTECTIONISM?

by Mandy Meng Fang

Mandy Meng Fang is an Assistant Professor in the School of Law, City University of Hong Kong.

SUMMARY

The European Union's (EU's) recent proposal for a new regulation on EV batteries is a groundbreaking effort, the first to focus on the entire value chain to improve product sustainability and safety throughout the life cycle. Battery producers inside and outside of the EU will have to meet a series of requirements, starting from carbon footprint declaration and related labeling to complying with life-cycle carbon footprint thresholds, for having their products placed in the EU market. While addressing climate change is the key objective, the EU is also seeking to boost its competitiveness, strengthen domestic battery manufacturing capacity, and develop a local value chain. The Battery Regulation's consistency with obligations under the World Trade Organization (WTO) regime thus becomes questionable. This Article explores key concepts of WTO law and examines the compatibility of the EU measures with the Agreement on Technical Barriers to Trade. Notwithstanding that unilateral measures can be permissible, the EU must ensure that design and implementation of its Battery Regulation can contribute to its climate ambition instead of simply being "green protectionism."

Fang M.M., 'Regulating EV Batteries' Carbon Footprint: EU Climate Ambition or Green Protectionism?' (2023) 53(7) Env't L. Rep 10590.