

Responses to Comments from the Public Consultation on Methodology CM-WM-ELV-01 Recovery and Recycling of Materials from End- of-Life Vehicles



Version 1.3

Response to comments from the public consultation on Methodology CM-WM-ELV-01

Dear participants:

Cercarbono extends its sincere thanks for your participation in the public consultation of ***Methodology CM-WM-ELV-01 Recovery and Recycling of Materials from End-of-Life Vehicles*** version 1.3, conducted electronically from 23.05.2025 to 24.06.2025.

Your valuable comments will allow us to produce a more complete and robust methodological document, enabling developers and proponents of GHG emission reduction activities through the recovery and recycling of materials from end-of-life vehicles to participate under our voluntary carbon certification programme.

Once applicable comments have been incorporated into the subject methodology, it will be published at our web site, section: Methodologies.

The table below outlines the comments received and the corresponding responses provided by our technical area, a document that will remain publicly available at our web site, section: Consultations.

We thank you once again for your time spent in your review and your valuable contribution.

Cordially yours,



Alex Saer

Cercarbono's CEO

No.	Comment	Section	Answer
1	It would be an excellent addition to consider the recovery of end-of-life tires (ELTs) as a material, in addition to plastics, glass, and metals which are already taken into account in the standard as well in some prevailing ones applicable to any economic sector (eg. VMR0007)	GENERAL (All section references in comments 1 to 7 relate to the document submitted containing such comments, as it does not specifically point to methodology sections as such)	<i>The end-use of tires are not considered in this methodology, as the majority of End-of-Life Tires (ELTs) are not reprocessed into new tires, which is the primary application of virgin rubber. Instead, ELTs are typically shredded and repurposed for applications such as road construction, playground surfaces, blocks, or tiles etc, therefore it would be difficult to track end use and emission savings based on end use.</i> <i>These uses do not represent a direct one-to-one substitution of virgin rubber, unlike the clear substitution pathways established for recycled metals, plastics, or glass. Furthermore, conducting a reliable life cycle assessment (LCA) for rubber tires is highly complex due to the diverse composition and end-use scenarios, making standardized emission accounting challenging within the scope of this methodology.</i>
2	In the Colombian context, and in many other countries, the declaration of a vehicle as a “total loss” by an insurance company does not necessarily mean that the vehicle has reached the end of its functional life. According to current Colombian regulations, a vehicle is considered a total loss when the repair cost exceeds 75% of the insured value. However, this calculation is based on repair costs using original parts	TECHNICAL JUSTIFICATION FOR THE REUSE OF VEHICLES AND COMPONENTS	(Note: This response collectively addresses Comments 2 through 7) <i>This methodology applies exclusively to vehicles that have been formally deemed non-roadworthy and not eligible for reuse or re-registration, as per the vehicle deregistration procedures and national regulatory</i>

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	and brand-authorized workshops, which does not necessarily reflect the technical or economic feasibility of repair under real market conditions. In practice, many of these vehicles can be repaired using locally sourced or second-hand parts (from legal markets) and independent workshops, allowing their useful life to be safely and functionally extended. This reality shows that insurance criteria should not be the sole determinant for classifying a vehicle as “end-of-life” from an environmental or life cycle perspective. From a sustainability perspective, it is essential to adopt an integrated approach that recognizes the environmental benefits of reuse, even for vehicles powered by fossil fuels. Extending the useful life of a vehicle or its components: 1. Reduces demand for virgin materials (steel, aluminum, plastics, glass, etc.). 2. Avoids emissions associated with the extraction, processing, and manufacturing of new vehicles or parts. 3. Lessens pressure on waste management systems and the need for immediate recycling. Therefore, reuse—when technically feasible and environmentally safe—should be recognized as a valid emission mitigation strategy, provided that a conservative life extension correction factor is applied. It is proposed that reused vehicles or components be included in the calculation of avoided emissions, using		<i>frameworks of the host country. Vehicles that remain legally repairable, re-registrable, or otherwise capable of being returned to circulation are explicitly excluded from the scope of this methodology. This ensures that the project activities focus strictly on true end-of-life vehicles, destined for environmentally sound dismantling and material recovery through authorized facilities.</i> <i>This is in line with previous comment’s response, where traceability of the use of such components or vehicles would be impractical if not impossible to comply with from the methodological standpoint given the vast amount of parts susceptible to be reused, their different places of origin and manufacturing facilities involved, even for the same part and vehicle brand, as well as mandatory documenting and evidence provision, required for carbon accounting purposes for each individual reused component or vehicle.</i> <i>To clarify this point, the definition of (c) End-of-Life Vehicles (ELVs) has been updated in the Terms and Definitions section, and an additional eligibility condition has been added as point (a) under Section 4: Eligibility and Inclusion Requirements, indicating that only</i>

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	an emission factor equivalent to that of the virgin material avoided, adjusted by a remaining useful life factor. This approach aligns with circular economy principles and the conservative framework of methodology CM-WM-ELV-01.		<i>non-roadworthy, deregistered vehicles are eligible under this methodology.</i>
3	For reuse to be eligible under this methodology, the following conditions must be met: 1. The component must be recovered at a formally registered Vehicle Scrapping Facility (RVSF). 2. There must be traceability of the component to its final destination (vehicle or other product). 3. The component must effectively replace a new component of equivalent characteristics. 4. The remaining useful life of the reused component must be technically justified (e.g., manufacturer manuals, inspections, functional tests).	ELEGIBILITY CONDITIONS	<i>(Please refer to comment 2 response)</i>
4	Avoided emissions from the reuse of components shall be calculated as: $ER_{reuse,i,t} = Q_{i,t} \times FE_{material,i} \times FC_{life,i}$ Where: • ER reuse,i,t: Avoided emissions from reuse of component i in period t (tCO ₂ e) • Q _{i,t} : Quantity (weight) of component i reused in period t (tons) • FE material,i: Emission factor of the virgin material of component i (tCO ₂ e/ton), as per Table 3	CALCULATION OF AVOIDED EMISSIONS FROM REUSE	<i>(Please refer to comment 2 response)</i>

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	of the methodology • FC life,i: Correction factor for remaining useful life of the component (value between 0 and 1) Note: This approach is conservative, assuming that the energy required to refurbish or reinstall the component is equivalent to that required to integrate it as a recycled material.		
5	The total emissions reductions shall be calculated as: $ER_{total,t} = ER_{recycling,t} + ER_{reuse,t} - PE_t - LE_t$ Where: • ER recycling,t: Emissions avoided through recycling • ER reuse,t: Emissions avoided through reuse • PE t: Project emissions • LE t: Leakage emissions	INCLUSION IN THE EMISSION BALANCE	<i>(Please refer to comment 2 response)</i>
6	The following data must be recorded and verified: 1. Type and weight of the reused component 2. Main material of the component 3. Estimated remaining useful life 4. Documentary evidence of the component's final destination (invoice, contract, buyer declaration) 5. Technical justification of the applied life correction factor	MONITORING AND TRACEABILITY	<i>(Please refer to comment 2 response)</i>

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7	Reuse must comply with the same environmental, social, and legal safeguards established in the methodology for recycling, including proper handling of hazardous waste and traceability of material flows.	SAFEGUARD	<i>(Please refer to comment 2 response)</i>
8	How does the methodology ensure that the default baseline recycling rate accurately reflects the situation in the host country, especially where informal recycling is prevalent?	Section 4: Eligibility & Inclusion requirement, Condition (t), page 12 & 13	<i>This methodology does not consider any default baseline recycling rate, but a reference one.</i> <i>As per points (t) and (u) of Section 4: Eligibility and Inclusion Requirements, the methodology requires that the project proponent must demonstrate ex-ante that the baseline recycling rate of ELVs, including both formal and informal recycling practices is equal to or less than 20% in the relevant geographic area. This demonstration must be supported by credible data sources, such as national records, independent studies, or published reports.</i> <i>In cases where the recycling rate exceeds 20%, the methodology applies stricter eligibility conditions. The proponent must then show that the CCMP leads to a significant increase in recycling rates at Registered Vehicle Scrapping Facilities (RVSFs), without diverting ELVs from existing recycling chains. This must also be backed by verifiable evidence.</i>

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			<i>Hence, the methodology ensures that the reference baseline recycling rate serves to conservatively and accurately reflects the actual recycling situation in the host country, including areas where informal recycling is prevalent.</i>
9	Baseline Assumptions a) What evidence supports that baseline recovery and recycling are negligible or absent? How is this verified across diverse geographies? b) Why are baseline emissions focused solely on virgin material production, ignoring existing recovery activities?		<i>a) The methodology addresses this directly in Section 4 (Eligibility and Inclusion Requirements), points (t) and (u). It requires the project proponent to provide ex-ante evidence showing that the baseline recovery and recycling rate of ELVs (including both formal and informal channels) is equal to or less than 20% within the applicable geographic area (region or country).</i> <i>b) The methodology does not ignore existing recycling practices. Instead, it applies a conservative accounting approach whereby emission reductions are calculated only for the additional materials recovered by the project, beyond what was being recycled in the baseline scenario.</i> <i>This is based on the question: “What emissions would occur if these materials were not recovered and</i>

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			<i>instead produced from virgin raw materials?"</i>
10	Data Integrity a) What data sources validate the assumption that informal recycling activities are insignificant? b) How is the absence of baseline recovery activities conservative when it risks overstating emission reductions?		<i>The methodology does not assume, informal recycling activities are insignificant, thus comments do not correspond to what the methodology describes.</i> <i>Now, data integrity will be checked at project level based on methodology requirement. This is a project-specific comment that is addressed through the application of the methodology's eligibility criteria and applicability conditions, as outlined primarily in Section 4: Eligibility and Inclusion Requirements.</i>
11	Emission Reduction Accuracy a) Does excluding baseline recovery inflate project impact? What measures prevent over-crediting? b) How are baseline activities considered in regions with high informal recycling presence?		<i>a) The methodology does not exclude baseline recovery. As per point (t) in Section 4 (Eligibility and Inclusion Requirements); It requires project proponents to assess and report the existing recycling rate, including both formal and informal sector activities, before the project begins. This is part of the project's eligibility criteria and prevent over-crediting.</i> <i>b) As mentioned above, it is a pre-requisite for the project/CCMP to report</i>

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			<i>existing recycling rate, incorporating both formal and informal recycling facilities.</i>
12	Stakeholder Impact a) How does the exclusion address the contributions of informal recyclers? Could this lead to displacement without accountability?		<i>As mentioned above, the methodology does not consider such exclusion. As per points (t) and (u) in Section 4 (Eligibility and Inclusion Requirements); The methodology requires project proponents to assess baseline recycling activities, including those by informal recyclers, and demonstrate that project activities do not divert ELVs from existing recovery systems. This ensures that the contributions of the informal sector are acknowledged, and that displacement is avoided or minimized.</i>
13	Methodological Rigor a) How does this exclusion align with the principles of conservativeness and additionality in carbon standards?		<i>As mentioned above, the methodology does not consider such exclusion. If this refers to the exclusion of already recycled materials, it aligns with the principles of conservativeness and additionality by ensuring that credits are issued only for recovery that goes beyond the baseline scenario. The methodology requires project proponents to establish the existing recovery rate, including informal recycling, and receive credit only for additional, verifiable improvements.</i>

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			<i>By doing so, it prevents overestimation of impact and ensures that only truly additional emission reductions are credited, upholding the core principles of credible carbon accounting.</i>
14	Future Adjustments a) What happens if baseline recycling rates increase during the crediting period? Is there a mechanism for periodic reassessment?		<i>Although the baseline recycling rate remains fixed during the crediting period, it may be reassessed and revised at the time of crediting period renewal, in line with methodological provisions.</i> <i>Moreover, if VCM's trends move towards more frequent reassessments considering all project's socioeconomic variables, Cercarbono would reflect that in its regulatory framework's documents, which then would become mandatory to follow for projects participating in our carbon programme.</i>
15	· The ELV methodology does not explicitly address double-counting risks with Cercarbono's plastic credit program. Major Gaps in Double-Counting Safeguards: a) Overlapping Material Streams The ELV methodology includes plastic recycling (Section 7.2.2, Table 4), while Cercarbono's plastic credit program likely covers broader plastic waste. Without clear exclusion clauses, the same recycled ELV plastics could theoretically generate both: ELV credits for avoiding virgin plastic production.	Section 7.2.2: Baseline emissions associated with recycling of Plastics, page 18	<i>Cercarbono's Programmes have a common basis and unified criteria for double counting management.</i> <i>So called "Major gaps in double-counting safeguards", could only exist in case the same kind of environmental outcomes are in play, which is not the case here.</i> <i>Given GHG mitigation projects, such as the ones that would be implemented by using this methodology, have the objective of reducing</i>

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	· Plastic credits for waste diversion. b) No Methodology-Specific Provisions Section 4 (Eligibility) and Section 14 (Monitoring) lack requirements to track whether ELV-derived plastics are also registered under other programs. · No mention of "retiring" plastic credits if ELV plastics are claimed under this methodology. c) Program-Level Uncertainty While Cercarbono's overarching rules <i>may</i> prohibit double-counting, the ELV methodology's silence on this issue leaves ambiguity. For example: If an RVSF sells ELV plastics to a processor participating in the plastic credit program, both entities could claim credits for the same material. <u>Questions for Clarification</u> • How does Cercarbono ensure ELV plastics are not double-counted across its methodologies? • Are project proponents required to declare participation in other plastic credit schemes during validation? • What systems track plastic flows from ELVs to final recycling to prevent dual claims?		<i>GHG emissions, hence generating only carbon credits for such GHG-related achieved environmental outcomes, the only possibility for double counting would be the same activity is credited under other programme or standard for the same GHG mitigation outcomes (i.e., other carbon credits) while plastic credits are related to a different environmental outcome for which no credits can be issued in this kind of projects, as they correspond to material, not related with GHG streams.</i> <i>As such, it is not possible to obtain plastic credits by using this methodology.</i> <i>Potential, real double counting situations are fully addressed in Cercarbono's regulatory framework's documents, available at: cercarbono.com, Section: "Documentation", as this is an overarching, relevant issue, its place is not in a methodology, but within the carbon programme regulatory framework.</i> <i>In case there are specific concerns or information requests regarding Cercarbono's Circular Economy Programme, which your inquiries belong to, please contact info@cercarbono.com for more information.</i>

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16	- Major Gaps in Addressing Cross-Border Movement a) Geographical Scope Limitations - The methodology defines the "applicable geographical area" as the host country (Terms & Definitions, Section a). - No requirement to track ELVs imported from neighbouring countries without ELV regulations, enabling leakage via cross-border trafficking. b) Inadequate Leakage Provisions - Section 8.3 dismisses leakage risks, assuming ELV supplies are "limited to the host country." This ignores: - Gray-market imports: ELVs smuggled into the host country to meet RVSF demand. - Informal sector displacement: Informal recyclers in bordering nations may increase ELV dumping to compensate for reduced supply. c) No Traceability Protocols - While the methodology requires ELVs to be processed in host-country RVSFs (Section 4a), it does not mandate: - Proof of ELV registration history in the host country. - Documentation of ELV origins (e.g., VIN tracking).	Section 3.2: Compliance with applicable legal provisions, page 10	a) & b) As per Terms and Definitions (c), the methodology defines ELVs as vehicles that are no longer validly registered, declared unfit, or deregistered in accordance with the host country's laws. This strongly implies that only domestically registered vehicles are eligible, unless national regulations explicitly allow the import and scrapping of foreign ELVs. Therefore, the methodology inherently ensures that eligible vehicles must be registered within the host country. c) As per point (g) of Section 4: Eligibility and Inclusion Requirements, the methodology mandates that output materials must be transferred only to a known and identifiable processing or manufacturing facility, either directly or via registered intermediaries. This requirement reinforces traceability throughout the supply chain, thereby indirectly disincentivizing the use of untraceable ELVs from cross-border or informal sources.