

Scope 3 Technical Working Group Meeting

Working draft, do not cite

Full TWG

Phase 2, Meeting 8

Processing and use of sold products minimum
boundary consideration

February 5th, 2026

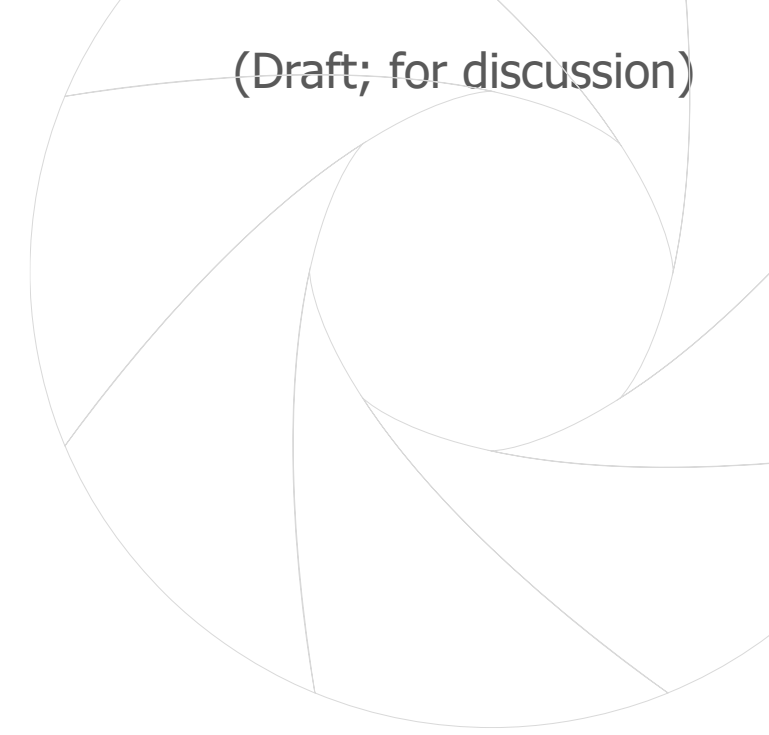
(Draft; for discussion)

Agenda

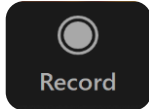
- Housekeeping and Timeline (5 min)
- EOY survey process to finalization (10 min)
- Category 10/11 boundary setting (90 mins)
 - Direct use-phase / indirect use-phase definitions
 - Processing vs use of sold products definitions
 - Optionality of indirect use-phase emissions
 - Inclusion of cradle-to-gate energy
 - Inclusion of embodied emissions of capital goods
 - More (time allowing!)
- Next steps (5 min)

(Draft; for discussion)

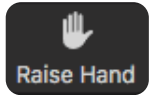
Housekeeping and decision-making criteria



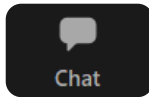
Welcome and Meeting information



This meeting is recorded.



Please mute yourself by default and unmute when speaking
Please use the Raise Hand function to speak during the call.



You can also use the chat function in the main control.



Recording, slides, and meeting minutes will be shared after the call.

TWG Meeting Communication Guidelines

A kind reminder on respectful communication

- **Assume positive intent** — We're all working toward the same goals, even when we disagree on methodology or approach
- **Make space for different perspectives** — Technical expertise shows up in many forms; pause to ensure everyone who wants to contribute has the opportunity
- **Default to curiosity** — Ask a clarifying question before countering; we may be talking past each other

Housekeeping

- TWG members should **not disclose any confidential information** of their employers, related to products, contracts, strategy, financials, compliance, etc.
- In TWG meetings, **Chatham House Rule** applies:
 - “When a meeting, or part thereof, is held under the Chatham House Rule, participants are free to use the information received, but neither the identity nor the affiliation of the speaker(s), nor that of any other participant, may be revealed.”
- **Compliance and integrity** are key to maintaining the credibility of the GHG Protocol
 - Specifically, all participants need to follow the **conflict-of-interest policy**
 - **Anti-trust rules** have to be followed; please avoid any discussion of competitively sensitive topics*

* Such as pricing, discounts, resale, price maintenance or costs; bid strategies including bid rigging; group boycotts; allocation of customers or markets; output decisions; and future capacity additions or reductions

Decision-Making Criteria

- Evaluating options: Describe pros and cons of each option relative to each criterion. Qualitatively assess the degree to which an option is aligned with each criterion through a green (most aligned), yellow (mixed alignment), orange (least aligned) ranking system. Some criteria may be not applicable for a given topic; if so, mark N/A.
- Comparing options: The aim is to advance approaches that ideally meet all decision criteria (i.e. maximize pros and minimize cons against all criteria). If options present tradeoffs between criteria, the hierarchy should be generally followed, such that, for example, scientific integrity is not compromised at the expense of other criteria, while aiming to find solutions that meet all criteria.

<i>Illustrative example</i>	Option A: Name	Option B: Name	Option C: Name
1A. Scientific integrity	<ul style="list-style-type: none"> • Pros • Cons 	<ul style="list-style-type: none"> • Pros • Cons 	<ul style="list-style-type: none"> • Pros • Cons
1B. GHG accounting and reporting principles	<ul style="list-style-type: none"> • Pros • Cons 	<ul style="list-style-type: none"> • Pros • Cons 	<ul style="list-style-type: none"> • Pros • Cons
2A. Support decision making that drives ambitious global climate action	<ul style="list-style-type: none"> • Pros • Cons 	<ul style="list-style-type: none"> • Pros • Cons 	<ul style="list-style-type: none"> • Pros • Cons
2B. Support programs based on GHG Protocol and uses of GHG data	<ul style="list-style-type: none"> • Pros • Cons 	<ul style="list-style-type: none"> • Pros • Cons 	<ul style="list-style-type: none"> • Pros • Cons
3. Feasibility to implement	<ul style="list-style-type: none"> • Pros • Cons 	<ul style="list-style-type: none"> • Pros • Cons 	<ul style="list-style-type: none"> • Pros • Cons

2026 workplan

(Draft; for discussion)

A decorative graphic in the top right corner consisting of several overlapping, thin-lined circles of varying sizes, creating a complex, geometric pattern.

Full Scope 3 TWG Meetings - 2026

Meeting #	Date	Time	Topic
7	Jan 15	9-11 AM ET	• EOY Survey review & Phase 2 (2026) SoW and Timeline review
8	Feb 5	9-11 AM ET	• Phase 1 review, Category 10/11 considerations
9	Feb 26	9-11 AM ET	• Complete Phase 1 review, scope 3 category sub-categories, and misc.
<i>ISB Meeting</i>	<i>Mar 12</i>	<i>n/a</i>	• <i>Approval of Phase 1 Revisions to-date and Progress Update for public disclosure</i>
10	Mar 19	9-11 AM ET	• Category 10/11 (continued)
11	Apr 9	9-11 AM ET	• Category 10/11 (continued)
12	Apr 30	9-11 AM ET	• Circularity, recycling, second-hand, and waste incineration
13	May 21	9-11 AM ET	• Circularity (continued)
14	Jun 11	9-11 AM ET	• Circularity (continued)
<i>ISB Meeting</i>	<i>Jun 29</i>	<i>n/a</i>	• <i>Review and Approval of Phase 2 Revisions</i>
15	Jul 2	9-11 AM ET	• Review Draft text and/or ISB comments
16	July 23	9-11 AM ET	• Review Draft text and/or ISB comments (continued)

Target deadline for public consultation: **October 20th, 2025** *

(Draft; for discussion)

PLACEHOLDER FOR DATA DISAGGREGATION

(Draft; for discussion)

PLACEHOLDER FOR OPTIONALITY (SERIES D)

(Draft; for discussion)

Category 10 and 11 Planned topics for discussion

Planned topics for discussion under category 10 and 11

Revision ID	Topic
E1	<p>Minimum boundary requirement for category 10 and 11, including:</p> <ul style="list-style-type: none"> - Consider whether indirect emissions should be required - Clarifying whether emissions from energy loss from intermediate components in (comprising) complex final products shall be included by the intermediate parts manufacturer - Consider inclusion of well-to-tank emissions for energy as a requirement (<i>this is an extension of Survey C, Series D revisions, Question 1 regarding the inclusion of cradle-to-gate emissions of fuels/energy use by value chain partners</i>)
E2	<p>Consider the addition of quantification methodologies for category 10 and 11 including:</p> <ul style="list-style-type: none"> - Whether to continue to allow the existing methodology to incorporate emissions across a product lifespan - Consider whether to allow, or require, annualization approaches such as stock-based approaches for durable products - Consider whether to allow, or require, usage-based approaches for some product types (e.g., EVs or software products)
E3	<p>Consider the addition of requirements or recommendations on the use of projected emission factors for grid or other energy decarbonization (e.g., only permit the use of static EFs vs. permitting the use of forward-year depreciating EFs)</p>
E4	<p>Provision of additional guidance on other best practice guidance of forecast modelling</p>
E5	<p>Provision of additional guidance on allocation of emissions from complex products to functional and non-functional parts (e.g., electrical monitors / sensors on airplanes)</p>
E6	<p>Consider requirements or recommendations on the addition of metrics to contextualize category 10 and 11 emissions</p>

Consolidated stakeholder feedback | Processing of sold products

- **Category 10 (Processing of sold products):**
 - Provide additional guidance on disclosing and justifying exclusion of category 10 emissions when there are many downstream applications of intermediate products (building on current guidance on this topic in chapter 5 and chapter 6).
 - Fix language in Example 11.3, Calculating use-phase emissions from sold intermediate products (Technical Guidance, p. 124), which some respondents found inconsistent with existing minimum boundary guidance.
 - Some asserted that this example is only applicable for physical products, however, service-providers do as much to ‘facilitate’ indirect downstream emissions. For example, flying an airplane is as dependent upon engines as it is on software (e.g., GPS software, flight operations software, and air traffic management software). However, there is no way to allocate indirect emissions to upstream software providers
 - A few interpret the category 11 minimum boundary guidance to include a fraction of emissions associated with manufacturing an engine (category 10) and a fraction of emissions associated with using an engine in a vehicle (category 11).

Consolidated stakeholder feedback | Use of sold products

- **Category 11 (use of sold products):**

- Make indirect use-phase emissions required in the minimum boundary.
- Provide minimum boundary clarity regarding direct and indirect energy use attributable to the use of sold products and whether or how to include the cradle-to-gate emissions associated with fuel or energy use by consumers
- Clarify whether all indirect use-phase emissions should be included by all value chain entities. Table 3.2 of the Technical Guidance (p. 40) requires oil and gas entities to include downstream emissions (category 11), however, this rule does not follow for non-fossil intermediate product manufacturers explicitly
- State explicitly whether and clarify how emissions associated with mechanical energy and/or energy loss should be accounted for by intermediate product or component manufacturers.
- Clarify whether the cradle-to-gate emissions attributable to constructing renewable energy generating facilities that generate the electricity consumed by end-users should be included in the category 11 minimum boundary of a reporting company

(Draft; for discussion)

E1. Sold product minimum boundary requirements

Minimum boundary requirements | existing text

- **Note that if the applicability of categories depends on whether a company produces an intermediate product or a final product.** If a company produces an intermediate product (e.g., a motor), which becomes part of a final product (e.g., an automobile), the company accounts for downstream emissions associated with the intermediate product, not the final product (pg 55 Scope 3 Standard)
- **Processing of sold products:**
 - “The scope 1 and scope 2 emissions of downstream companies that occur during processing (e.g., from energy use)” <- *Table 5.4 Scope 3 Standard*
 - This category includes emissions from processing of sold intermediate products by third parties (e.g., manufacturers) subsequent to sale by the reporting company. Intermediate products are products that require further processing, transformation, or inclusion in another product before use (see box 5.3), and therefore result in emissions from processing subsequent to sale by the reporting company and before use by the end consumer <- *pg 47 Scope 3 Standard*
- **Use of sold products:**
 - “The direct use-phase emissions* of sold products over their expected lifetime (i.e., the scope 1 and scope 2 emissions of end users that occur from the use of: products that directly consume energy (fuels or electricity) during use; fuels and feedstocks; and GHGs and products that contain or form GHGs that are emitted during use)” <- *Table 5.4 Scope 3 Standard*
 - **Optional:** The indirect use-phase** emissions of sold products over their expected lifetime (i.e., emissions from the use of products that indirectly consume energy (fuels or electricity) during use) <- *Table 5.4 Scope 3 Standard*
 - The minimum boundary of category 11 includes direct use-phase emissions of sold products. Companies may also account for indirect use-phase emissions of sold products, and should do so when indirect use-phase emissions are expected to be significant <- *pg 48 Scope 3 Standard*
 - Companies may optionally include emissions associated with maintenance of sold products during use. *pg 48 Scope 3 Standard*

* - **Direct use-phase emissions** includes emissions from products that directly consume energy (fuels or electricity) during use; Fuels and feedstocks; Greenhouse gases and products that contain or form greenhouse gases that are emitted during use

** - **Indirect use-phase emissions** includes emissions from products that indirectly consume energy (fuels or electricity) during use <- *Table 5.8 Scope 3 Standard*

Consolidated stakeholder survey responses

- Many respondents asked for more guidance on interpreting and applying the minimum boundaries. Several respondents asserted that the current boundary definitions are inconsistent or unclear to determine the inclusion or exclusion of some activities.
 - Combined, **category 10 and category 11** accounted for nearly half of all requests for category-specific guidance
- Several respondents expressed concern that optionality gives rise to year-over-year GHG inventory fluctuations

Items for consideration under E1

Reference	
E1.1	Consider definitions of direct use-phase and indirect use-phase (Cat 11)
E1.2 (also D9)	Consider definitions of processing vs use of products
E1.3	Optionality of indirect use-phase emissions in required scope (Cat 11)
E1.4	Inclusion of cradle-to-gate (well-to-tank) emissions for fuels/energy
E1.5	Explicit inclusion of cradle-to-gate emissions for capital goods in indirect use-phase
E1.6	Accounting for indirect energy loss in systems
E1.7	Accounting for non-physical products and services
E1.8	Boundary treatment for product with multiple uses, or diverse customer bases

(Draft; for discussion)

E1.1 - Definitions of direct and indirect use-phase emissions

E1.1 | Stakeholder feedback

- Whilst there was limited feedback that explicitly asked for consideration of the definitions of direct use-phase and indirect use-phase emissions, there was **feedback that suggested that there might be inconsistent interpretation amongst users.**
- This included comments such as:
 - Whether all direct and indirect use-phase energy use attributable to a product should be included
 - Unclear whether all indirect use-phase emissions should be included by all value chain entities
 - Ambiguity regarding how downstream emissions attributable to powering consumer devices that operate software services should be allocated
- **Clearly some ambiguity about what qualifies as direct-use energy consumption and what qualifies as indirect-use energy consumption**

E1.1 | Existing guidance

- The current definitions are based on the type of product, rather than offering actual definitions of 'direct use-phase' and 'indirect use-phase'. The definition is left for interpretation by users.
- Are we satisfied that the definitions of direct use-phase and indirect use-phase emissions are sufficiently clear?**
- There are, in essence, three definitions we should consider here:
 - Direct use-phase, indirect use-phase, and what doesn't need to be included.
- Note that the **CDP Oil & Gas Guidance*** outlines further guidance for oil and gas companies, including ensuring that intermediaries have methods to calculate emissions from throughput fuels (including those that don't necessarily sell oil/gas, but just work on distribution as a service)
- Note that E1.1 will just consider whether the definitions themselves have enough clarity. Other topics will look at the minimum boundary itself*

Table [5.8] Emissions from use of sold products

Type of emissions	Product type
Direct use-phase emissions (Required)	Products that directly consume energy (fuels or electricity) during use
	Fuels and feedstocks
	Greenhouse gases and products that contain or form greenhouse gases that are emitted during use
Indirect use-phase emissions (Optional)	Products that indirectly consume energy (fuels or electricity) during use

* https://cdn.cdp.net/cdp-production/cms/guidance_docs/pdfs/000/000/469/original/CDP-Scope-3-Category11-Guidance-Oil-Gas.pdf

E1.1 | Examples - fuels and feedstocks

Is it sufficiently clear, based solely on definition, how to categorize emissions in these examples?

- **Gasoline sold to retailers:**
 - Company is a fuel distributor
 - Product is gasoline (final product) for use in road vehicles

- **Additives mixed into gasoline:**
 - Company is a chemicals manufacturer
 - Product is an intermediate product which is then mixed with the gasoline, and sold to consumers as a pre-mixed gasoline product

- **Engine lubricant, used in gasoline engines:**
 - Company manufactures fossil-based lubricants
 - Product is sold as a final product to consumers and to OEMs.

- **Engine control software:**
 - Company is a software company (not hardware)
 - Product is sold to OEMs to digitally control engine performance

Table [5.8] Emissions from use of sold products

Type of emissions	Product type
Direct use-phase emissions <i>(Required)</i>	Products that directly consume energy (fuels or electricity) during use
	Fuels and feedstocks
	Greenhouse gases and products that contain or form greenhouse gases that are emitted during use
Indirect use-phase emissions <i>(Optional)</i>	Products that indirectly consume energy (fuels or electricity) during use

E1.1 | Examples – other examples

Is it sufficiently clear, based solely on definition, how to categorize emissions in these examples?

- **Smart thermostat software controlling home heating**
 - Software-only product
 - What energy is included? Only energy from software operation? Or energy induced by the software?
- **Tires sold on passenger vehicles**
 - Tires sold to OEMs and end consumers
 - What emissions are included? How would they be categorized if they are included?
- **Ammonia sold for various purposes**
 - As fertilizer – N₂O released during use -> direct use-phase
 - As fuel – N₂O released during combustion -> direct use-phase
 - As a refrigerant – NH₃ leaked (not a GHG); Energy required to power fridge -> indirect use-phase
 - Definitions are currently **application** driven rather than **product** driven

Table [5.8] Emissions from use of sold products

Type of emissions	Product type
Direct use-phase emissions (Required)	Products that directly consume energy (fuels or electricity) during use
	Fuels and feedstocks
	Greenhouse gases and products that contain or form greenhouse gases that are emitted during use
Indirect use-phase emissions (Optional)	Products that indirectly consume energy (fuels or electricity) during use

E1.1 | Discussion points

- **Were all the examples discussed sufficiently clear on how to categorize based on existing definitions?**
- **If not, what would have made the decision clearer?**
 - Robust, codified definitions of direct use-phase and indirect use-phase?
 - Illustrative examples within the *Scope 3 Standard* and/or *Technical Guidance*?
 - *Note that the Technical Guidance does have some boxes with illustrative examples already, but these were criticized in the survey for being unclear and potentially inconsistent with the original definitions!*
- **Do we think ambiguity, if present, causes material differences in accounting for products of similar types in practice?**
- **If further work on definitions is needed:**
 - Do we stick with the implicit, core principles outlined in the existing Scope 3 Standard, but work on more robust definitions of what is included/excluded in line with those principles?
 - Do we redefine based on alternative principles (e.g., to account more on product causality or facilitation)?
- **Does the TWG know of any sector-specific guidance that builds on the GHG Protocol but addresses this issue specifically?**
- The Secretariat has not prepared alternative definitions for consideration at this point. If they are needed (based on discussions above), please present any proposals for consideration over the next few weeks (before the next TWG – 21st Feb)

(Draft; for discussion)

E1.2 - Definitions of processing vs use of products

E1.2 | Feedback from stakeholder consultation

- Consultation feedback indicates persistent uncertainty in distinguishing between emissions associated with processing of a sold product and emissions associated with its use, **particularly for intermediate products, multifunctional products, and products embedded in complex systems.**
- Respondents highlighted ambiguity in cases where:
 - A sold product undergoes multiple downstream transformation steps before delivering its intended function
 - The same physical activity (e.g. heating, chemical reaction, mechanical work) could reasonably be interpreted as either processing or use depending on context
 - Products serve both as inputs to further manufacturing and as functional components within a system
 - Software-enabled products and digital services blur the distinction between enabling processing and enabling use
- This isn't necessarily a problem with the definitions, but about applying the rules consistently, particularly in cases where a product undergoes multiple transformations and uses.

E1.2 | Existing definitions and descriptions

Scope 3 Standard (Table 5.4, pg. 36)

- **Processing of sold products** – Processing of **intermediate products*** sold in the reporting year by downstream companies (e.g., manufacturers)
 - * - **Intermediate products** are products that require further processing, transformation, or inclusion in another product before use [...] and therefore result in emissions from processing subsequent to sale by the reporting company and before use by the end consumer.
- **Use of sold products** – End use of goods and services sold by the reporting company in the reporting year
 - The direct use-phase emissions of sold products over their expected lifetime (i.e., the scope 1 and scope 2 emissions of end users that occur from the use of: products that directly consume energy (fuels or electricity) during use; fuels and feedstocks; and GHGs and products that contain or form GHGs that are emitted during use)

E1.2 | Existing definitions and descriptions

Scope 3 Standard (Table 5.11, pg.56)

Applicability of downstream scope 3 categories to final and intermediate products sold by the reporting company

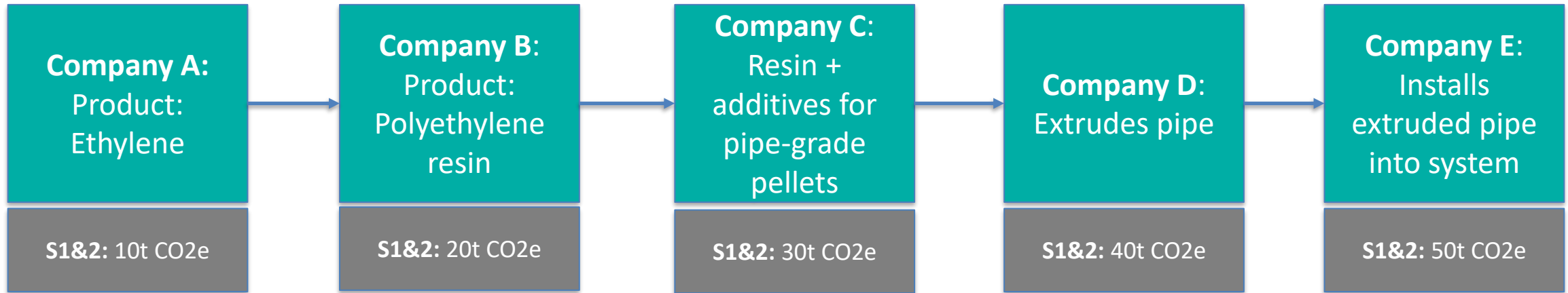
Processing of sold products:

- **Final products:** Not applicable to final products
- **Intermediate products:** Processing of sold intermediate products by customers (e.g., manufacturers)

Use of sold products:

- **Final products:** The direct use-phase emissions of sold final products by the end user. Companies may optionally include indirect use-phase emissions
- **Intermediate products:** The direct use-phase emissions of sold intermediate products by the end user. Companies may optionally include indirect use-phase emissions

E1.2 | Example case of ambiguity



- **Where should the processing end, and use-phase begin?** *The Scope 3 Standard is missing a definition of use at the moment*
 - After installation at company D/E and is in a final, complex product?
 - This is the most logical with strict interpretation of the existing standard rules
 - After company C, as the output product already has its desired properties at that point (i.e., its mechanical properties, durability, chemical resistance)
 - After company B, as the intention of the ethylene feedstock is for it to be polymerized

E1.2 | Discussion points

- **Is this ambiguity real in practice?**
 - Have you seen examples where similar intermediate products are treated differently across companies or sectors?
- **Does this ambiguity lead to materially different outcomes?**
 - Does it materially change category 10 and category 11 totals?
 - Does differences in allocation between categories affect target setting, or comparability to an unacceptable extent?
 - Note that there are justifiable exclusion rules that are applicable to category 10 and/or 11 for more complex supply chains
- **Would clarification of where to anchor use improve the Scope 3 Standard?**
 - Would it improve consistency, reduce interpretative risk? Or;
 - Unintentionally constrain or cause new issues?
- **Does the TWG know of any sector-specific guidance that builds on the GHG Protocol but addresses this issue specifically?**
 - The Secretariat notes that there is specific guidance for the oil and gas sector (CDP*); semiconductor industry (SEMI SCC**); aviation industry (IAEG***) that provide sector-specific interpretations
- **Potential options:**
 1. Do nothing as the ambiguity is immaterial and changing it risks causing other issues to emerge
 2. Clarify the intent only (e.g., use of sold products applies only to the use of the final product by the end consumer prior to any disposal or end-of-life pathway)
 3. Clarify with exclusions (any further transformation of intermediate products prior to final application shall be treated as processing)

* - https://cdn.cdp.net/cdp-production/cms/guidance_docs/pdfs/000/000/469/original/CDP-Scope-3-Category11-Guidance-Oil-Gas.pdf

** - <https://discover.semi.org/scope-3-category-11-ghg-assessment-download-form.html>

*** - https://www.iaeg.com/documents/wg3/IAEG-Guidance-calculating-Civil-Military-Scope3-Cat11_v2.0_Final.pdf

Decision-making criteria for E1.2

<i>Criteria</i>	Option 1: Do nothing	Option 2: Clarify definition of “use of sold products”	Option 3: Clarify definition of “processing”
1A. Scientific integrity	<p>Pros:</p> <p>Cons: Does not resolve edge cases that might encourage more complex supply chains to avoid justified exclusions. May cause some companies to under-report Cat 11 emissions (assuming lifetime approach is maintained)</p>	<p>Pros: Reflects lifecycle logic commonly used in LCA practices</p> <p>Cons: May oversimplify complex systems where function or use is delivered incrementally across multiple stages</p>	<p>Pros: Creates clear distinctions grounded in physical transformation</p> <p>Cons: May conflict with functional causality for widespread products</p>
1B. GHG accounting and reporting principles	<p>Pros: Preserves continuity, avoids new boundary issues</p> <p>Cons: Allows continued potential inconsistency, potential reducing consistency & comparability</p>	<p>Pros: Improves consistency and transparency, reduces ambiguity</p> <p>Cons: May still leave some ambiguity of what a final product is</p>	<p>Pros: Improves consistency and transparency.</p> <p>Cons: Risks increasing the amount of justified exclusions increasing modelling requirements for intermediate products in very complex supply chains</p>
2A. Support decision making that drives ambitious global climate action	<p>Pros: Decision-making consideration for companies do not need to change</p> <p>Cons: Interpretation of appropriate actions may not be consistent</p>	<p>Pros: Provides clearer interpretation for decarbonization planning</p> <p>Cons:</p>	<p>Pros: Provides clearer interpretation for decarbonization planning</p>
2B. Support programs based on GHG Protocol and uses of GHG data	<p>Pros: No change means that reporting frameworks can remain unchanged.</p> <p>Cons: Leaves unresolved potential inconsistencies in reporting, and potential</p>	<p>Pros: Likely to improve alignment across reporters by clarifying intent</p> <p>Cons: May differ from sector-specific interpretations (more information needed)</p>	<p>Pros: Likely to improve alignment across reporters by clarifying intent</p> <p>Cons: May differ from sector-specific interpretations (more information needed)</p>
3. Feasibility to implement	<p>Pros: No implementation burden</p>	<p>Pros: Not expected to have major implementation burden</p> <p>Cons: Risks unintended narrowing of scope</p>	<p>Pros: Not expected to have major implementation burden</p> <p>Cons: May be very challenging in complex supply chains</p>

* The options and preliminary comparisons herein are not designed to be final, complete, or all-encompassing.

(Draft; for discussion)

E1.3 Optionality of indirect use-phase emissions (Cat 11 only)

E1.3 | Category 11 existing requirements

Scope 3 Standard (Table 5.4, pg. 36)

- **Use of sold products:**

- **Required:** “The direct use-phase emissions* of sold products over their expected lifetime (i.e., the scope 1 and scope 2 emissions of end users that occur from the use of: products that directly consume energy (fuels or electricity) during use; fuels and feedstocks; and GHGs and products that contain or form GHGs that are emitted during use)” <- *Table 5.4 Scope 3 Standard*
- **Optional:** “The indirect use-phase** emissions of sold products over their expected lifetime (i.e., emissions from the use of products that indirectly consume energy (fuels or electricity) during use)” <- *Table 5.4 Scope 3 Standard*
- The minimum boundary of category 11 includes direct use-phase emissions of sold products. Companies may also account for indirect use-phase emissions of sold products, and should do so when indirect use-phase emissions are expected to be significant <- *pg 48 Scope 3 Standard*
- Companies may optionally include emissions associated with maintenance of sold products during use. *pg 48 Scope 3 Standard*

* - **Direct use-phase emissions** includes emissions from products that directly consume energy (fuels or electricity) during use; Fuels and feedstocks; Greenhouse gases and products that contain or form greenhouse gases that are emitted during use

** - **Indirect use-phase emissions** includes emissions from products that indirectly consume energy (fuels or electricity) during use <- *Table 5.8 Scope 3 Standard*

E1.3 | Context & interoperability with other standards

- Feedback from the stakeholder survey indicated that the GHG Protocol should consider make indirect emissions a requirement for reporting
- **Other standards/frameworks** refer to the GHG Protocol definitions of direct use-phase and indirect use-phase, and **follow the GHG Protocol's current requirements** of reporting direct use-phase and optional reporting of indirect use-phase, rather than offering up their own definition
- SBTi (*Corporate Net-Zero Standard, 2025*)
 - “The direct use-phase emissions of final products **shall** be calculated based upon the lifetime consumption of the product(s)”
 - “Indirect use-phase emissions are generated by products that only consume energy indirectly during use over their expected lifetime. These emissions are classified as **optional** and are therefore not within the “minimum boundary” for scope 3 category 11 “use of sold products”
- As things stand, **the GHG Protocol's optionality rules align with most other standards**

E1.3 | Discussion points

- **What is the current practice in your sector for calculating indirect use-phase emissions?**
 - Always included? Sometimes included? Inconsistently applied?
- **What are the risks of inclusion?**
 - Would inclusion:
 - Materially risk increases in double counting?
 - Disincentivize decarbonization action?
 - Cause significant modelling burden with limited benefit for most users?
- **What are the risks of exclusion?**
 - Would exclusion:
 - Disincentivize product design that indirectly reduces emissions?
 - Create loopholes for structurally important actors?
 - Reduced comparability between sectors?
- **Are there particular industries that should be treated differently?**
 - Does the TWG know of any sector-specific guidance that builds on the GHG Protocol but addresses this issue specifically?
Any sector-specific examples where indirect use-phase emissions are made mandatory?

E1.3 Optionality of indirect use-phase emissions in required scope

Current Standard (2011)

“The minimum boundary of category 11 includes direct use-phase emissions.

Companies may also account for indirect use-phase emissions of sold products, and should do so when indirect use-phase emissions are expected to be significant. [...]

Proposed Revised Standard (2025)

“The ~~minimum~~ boundary of category 11 includes direct **and indirect** use-phase emissions.

~~Companies may also account for indirect use-phase emissions of sold products, and should do so when indirect use-phase emissions are expected to be significant”~~

Notes/rationale

- At this stage, we are not considering:
 - Cradle-to-gate fuels/energy emissions or capital goods
Cradle-to-gate emissions from capital goods
 - Indirect energy loss from systems
 - Boundary exemptions for particular industry types
 - Accounting approaches (annualized vs lifetime)
- If approved, all related revisions will be presented at next TWG

E1.3 | Decision-making criteria

- **Option 1: Maintain existing** – indirect use-phase emissions are optionally reported
- **Option 2: Expand requirements** – indirect use-phase emissions are added as a requirement

<i>Illustrative example</i>	Option 1: Maintain existing	Option 2: Expand requirements
1A. Scientific integrity	<ul style="list-style-type: none"> • Pros: Maintains boundaries that distinguish between emissions that are from a product vs emissions that are because of a product • Cons: Less complete estimation of the environmental impact of a company's product portfolio 	<ul style="list-style-type: none"> • Pros: More full estimation of the environmental impact of a company's sold products. The indirect use may dominate over direct use for many products. • Cons:
1B. GHG accounting and reporting principles	<ul style="list-style-type: none"> • Pros: Transparent and relevant approach. Simpler requirement more likely to lead to greater accuracy. Preserves accepted Scope 3 logic • Cons: May not always be a complete or relevant accounting, depending on product type. 	<ul style="list-style-type: none"> • Pros: A transparent, complete and relevant accounting. Brings closer alignment to LCA principles • Cons: More complex approach may lead greater uncertainty and reduced comparability. Also likely to lead to greater levels of double counting
2A. Support decision making that drives ambitious global climate action	<ul style="list-style-type: none"> • Pros: • Cons: Some innovations (e.g., low-temperature detergents) aren't incentivized via Scope 3 reporting 	<ul style="list-style-type: none"> • Pros: Incentivizes products that are designed to reduce emissions across all aspects of use • Cons: Less sensitivity in year-on-year trends to efforts made by the reporting company. Can lead to massive Scope 3 Category 11 categories
2B. Support programs based on GHG Protocol and uses of GHG data	<ul style="list-style-type: none"> • Pros: Maintains backwards compatibility; harmonizes with other standards 	<ul style="list-style-type: none"> • Cons: Would not harmonize with other standards; recalibration of base years might be needed for related targets. Most standards refer to GHG Protocol definitions, though
3. Feasibility to implement	<ul style="list-style-type: none"> • Pros: No hassle maintaining records and more simple for many readers 	<ul style="list-style-type: none"> • Cons: More complicated to estimate and requires extensive assumptions, reporting cost, and assurance complexity.

(Draft; for discussion)

E1.4 Inclusion of cradle-to-gate (well-to-tank) emissions for fuels/energy

E1.4 Inclusion of cradle-to-gate (well-to-tank) emissions for fuels/energy

- Same consideration as has been made throughout Series D. **In the recent survey, TWG members voted that cradle-to-gate emissions for fuels/energy shall be included in the minimum boundary for category 10 and category 11**

Total Shall	Total Optional	Category name	Cumulative opinion	
			% shall	% optional
30	9	Category 1	77%	23%
29	10	Category 2	74%	26%
30	9	Category 3	77%	23%
31	8	Category 4	79%	21%
24	15	Category 5	62%	38%
29	10	Category 6	74%	26%
24	15	Category 7	62%	38%
24	15	Category 8	62%	38%
31	8	Category 9	79%	21%
24	15	Category 10	62%	38%
27	12	Category 11	69%	31%
23	16	Category 12	59%	41%
22	17	Category 13	56%	44%

E1.4 Inclusion of cradle-to-gate (well-to-tank) emissions for fuels/energy

- Same consideration as has been made throughout Series D. **In the recent survey, TWG members voted that cradle-to-gate emissions for fuels/energy shall be included in the minimum boundary for category 10 and category 11**

Total Shall	Total Optional	Category
30	9	Category 1
29	10	Category 2
30	9	Category 3
31	8	Category 4
24	15	Category 5
29	10	Category 6
24	15	Category 7
24	15	Category 8
31	8	Category 9
24	15	Category 10
27	12	Category 11
23	16	Category 12
22	17	Category 13

Category name	Cumulative opinion	
	% shall	% optional
Purchased goods and services	77%	23%
Capital goods	74%	26%
Fuel- and energy-related activities (not in scope 1 or 2)	77%	23%
Upstream transportation and distribution	79%	21%
Waste generated in operations	62%	38%
Business travel	74%	26%
Employee commuting	62%	38%
Upstream leased assets	62%	38%
Downstream transportation and distribution	79%	21%
Processing of sold products	62%	38%
Use of sold products	69%	31%
End-of-life treatment of sold products	59%	41%
Downstream leased assets	56%	44%

E1.4a Inclusion of cradle-to-gate (well-to-tank) emissions for fuels/energy

Current Standard (2011)

Table 5.4:

10. Processing of sold products [...] The scope 1 and scope 2 emissions of downstream companies that occur during processing (e.g., from energy use)

Proposed Revised Standard (2025)

Table 5.4:

10. Processing of sold products [...] The scope 1 and scope 2 emissions of downstream companies that occur during processing (e.g., from energy use), **and the cradle-to-gate emissions of fuels/energy used by a value chain partner for processing of the intermediate product**

E1.4b Inclusion of cradle-to-gate (well-to-tank) emissions for fuels/energy

Current Standard (2011)

Table 5.4:

11. Use of sold products [...] The direct use-phase emissions of sold products over their expected lifetime (i.e., the scope 1 and scope 2 emissions of end users that occur from the use of: products that directly consume energy (fuels or electricity) during use; fuels and feedstocks; and GHGs and products that contain or form GHGs that are emitted during use)

Optional: The indirect use-phase emissions of sold products over their expected lifetime (i.e., emissions from the use of products that indirectly consume energy (fuels or electricity) during use)

Proposed Revised Standard (2025)

Table 5.4:

11. Use of sold products [...] The direct use-phase emissions of sold products over their expected lifetime (i.e., the scope 1 and scope 2 emissions of end users that occur from the use of: products that directly consume energy (fuels or electricity) during use; fuels and feedstocks; and GHGs and products that contain or form GHGs that are emitted during use. **Where energy is directly consumed by the sold product, cradle-to-gate emissions for that fuel shall be included.**

Optional: The indirect use-phase emissions of sold products over their expected lifetime (i.e., emissions from the use of products that indirectly consume energy (fuels or electricity) during use), **including cradle-to-gate emissions for the indirectly consumed energy.**

Decision-making criteria for E1.4a & b

<i>Criteria</i>	Option 1: Maintain existing	Option 2: Explicitly require C2G (or WTT) emissions for energy/fuel are included
1A. Scientific integrity	<p>Pros:</p> <p>Cons: Potential for emissions to be unaccounted for, misaligning with best practices in LCAs</p>	<p>Pros: Reflects lifecycle logic commonly used in LCA practices</p> <p>Cons:</p>
1B. GHG accounting and reporting principles	<p>Pros:</p> <p>Cons: Inconsistent interpretation will reduce consistency. Won't be an accurate representation of emissions</p>	<p>Pros: Improved accuracy in reporting, improved consistency and comparability</p>
2A. Support decision making that drives ambitious global climate action	<p>Pros: Emissions are outside the control of reporting companies with limited influence to change.</p> <p>Cons: Decarbonization informed without a full picture may lead to unintended consequences</p>	<p>Pros: Provides clearer interpretation for decarbonization planning</p> <p>Cons: Emissions will be of limited influence for reporting companies, and often with small relevancy</p>
2B. Support programs based on GHG Protocol and uses of GHG data	<p>Pros: No change means that reporting frameworks can remain unchanged.</p> <p>Cons: Leaves unresolved potential inconsistencies in reporting, and potential</p>	<p>Pros: Likely to improve alignment across reporters by clarifying intention</p> <p>Cons:</p>
3. Feasibility to implement	<p>Pros: No implementation burden</p>	<p>Pros: Already a recommendation (pg 70 of <i>Scope 3 Standard</i>) so most reporting companies will have no implementation burden</p> <p>Cons: Modelling well-to-tank emissions for energy/fuels in global jurisdictions for downstream customers can be challenging, as WTT Efs aren't readily available in many domains</p>

(Draft; for discussion)

E1.5 Inclusion of capital good embodied (cradle-to-gate) emissions

E1.5 Inclusion of capital good emissions

- Same consideration as has been made throughout Series D. **In the recent survey, TWG members voted that embodied (cradle-to-gate) emissions of capital goods used by value chain partners should be optional.**
 - Note that no stakeholder feedback suggested the inclusion of cradle-to-*grave* emissions from capital goods. This is not suggested by the Secretariat to avoid turning category 10 and 11 into system-wide LCA buckets.

Total <u>Shall</u>	Total <u>Optional</u>	Category name	Cumulative opinion	
			% shall	% optional
14	25	Category 1	36%	64%
15	24	Category 2	38%	62%
16	23	Category 3	41%	59%
12	27	Category 4	31%	69%
11	28	Category 5	28%	72%
10	29	Category 6	26%	74%
15	24	Category 8	38%	62%
12	27	Category 9	31%	69%
12	27	Category 12	31%	69%
10	29	Category 14	26%	74%
10	29	Category 15	26%	74%

E1.5a Inclusion of embodied (cradle-to-gate) emissions

Current Standard (2011)

Table 5.4:

10. Processing of sold products [...] The scope 1 and scope 2 emissions of downstream companies that occur during processing (e.g., from energy use)

Proposed Revised Standard (2025)

Table 5.4:

10. Processing of sold products [...] The scope 1 and scope 2 emissions of downstream companies that occur during processing (e.g., from energy use), [E1.4a] *and the cradle-to-gate emissions of fuels/energy used by a value chain partner for processing of the intermediate product*

Optional: All upstream (cradle-to-gate) emissions associated with manufacturing or constructing capital goods used in the processing of intermediate sold products (including the production of machines, facilities, and dedicated infrastructure*)

E1.5b Inclusion of cradle-to-gate (well-to-tank) emissions for fuels/energy

Current Standard (2011)

Table 5.4:

11. Use of sold products [...] The direct use-phase emissions of sold products over their expected lifetime (i.e., the scope 1 and scope 2 emissions of end users that occur from the use of: products that directly consume energy (fuels or electricity) during use; fuels and feedstocks; and GHGs and products that contain or form GHGs that are emitted during use)

Optional: The indirect use-phase emissions of sold products over their expected lifetime (i.e., emissions from the use of products that indirectly consume energy (fuels or electricity) during use)

Proposed Revised Standard (2025)

Table 5.4:

11. Use of sold products [...]

Optional:

- The indirect use-phase emissions of sold products over their expected lifetime (i.e., emissions from the use of products that indirectly consume energy (fuels or electricity) during use), *including cradle-to-gate emissions for the indirectly consumed energy*, **and all upstream (cradle-to-gate) emissions associated with manufacturing or constructing capital goods (including the production of machines, facilities, and dedicated infrastructure*), is under the control of the end user, and is directly required to make use of the sold product.**

Note: the revision drafted here seeks to not suggest the inclusion of infrastructure like power networks (for any electricity requirements)

Decision-making criteria for E1.5a & b

<i>Criteria</i>	Option 1: Maintain existing	Option 2: Optional inclusion of embodied emissions from capital goods
1A. Scientific integrity	<p>Pros:</p> <p>Cons: Potential for emissions to be unaccounted for, misaligning with best practices in LCAs</p>	<p>Pros: Reflects lifecycle logic commonly used in LCA practices</p> <p>Cons:</p>
1B. GHG accounting and reporting principles	<p>Pros:</p> <p>Cons: Inconsistent interpretation will reduce consistency. Won't be an accurate representation of emissions</p>	<p>Pros: Improved accuracy in reporting for those who choose to include it</p> <p>Cons: Comparability is not guaranteed, but optional reporting separation means this doesn't compromise comparison of required scope. Limited relevancy for many.</p>
2A. Support decision making that drives ambitious global climate action	<p>Pros: Emissions are outside the control of reporting companies with limited influence to change.</p> <p>Cons: Decarbonization informed without a full picture may lead to unintended consequences</p>	<p>Pros: Provides clearer interpretation for planning</p> <p>Cons: Emissions will be of limited influence for reporting companies. Emissions may be very large and 'hide' emissions where can be influenced</p>
2B. Support programs based on GHG Protocol and uses of GHG data	<p>Pros: No change means that reporting frameworks can remain unchanged.</p> <p>Cons: Leaves potential inconsistencies in reporting, and potential</p>	<p>Pros: No change to required scope means that reporting frameworks can remain unchanged</p> <p>Cons: Leaves potential inconsistencies in reporting, but separated from required reporting</p>
3. Feasibility to implement	<p>Pros: No implementation burden</p>	<p>Pros:</p> <p>Cons: Modelling embodied emissions requires knowledge of uses of the product (in process or end use), and access to relevant emission factors for such equipment.</p>

(Draft; for discussion)

E1.6 Inclusion of emissions from mechanical energy loss

E1.6 | Original feedback under consideration

- Some sold products give rise to **energy losses during operation** that do not directly result in useful output (e.g., mechanical energy losses, heat energy losses, inefficiencies in energy conversion)
 - “State explicitly whether and clarify how emissions associated with mechanical energy and/or energy loss should be accounted for by intermediate product or component manufacturers. Guidance is unclear in the Scope 3 Standard regarding the inclusion or exclusion of mechanical energy.”
- Survey respondents also flagged that things like flying an airplane is “as dependent upon engines as it is on software” (e.g., GPS software, flight operations software, and air traffic management software). However, there is no way to allocate indirect emissions to upstream software providers.
 - Full consideration of non-physical products to be considered in a separate revision (E1.7)
 - Implication for consideration under this revision - **how should energy losses be allocated?** Many components contribute to system-level energy loss but do not directly consume energy, do not fall clearly within existing direct use-phase or indirect use-phase emissions definitions

E1.6 | Existing guidance

- The Scope 3 Standard and Technical Guidance do not explicitly explain how to account for energy losses
- Instead, energy losses are **implicitly included** for products that have category 10 or 11 emissions. It is assumed that activity data includes energy losses within a broader system.
 - e.g., the energy of the fuel required for a vehicle's engine over its lifetime includes energy that is harnessed, and energy that is lost as heat
 - *Cat 10: Technical Guidance (pg. 107): Companies may use either of two methods: Site-specific method, which involves determining the amount of fuel and electricity used [...] by the third-party; Average-data method, which involves estimating emissions [...] based on average secondary data, such as average emissions per process or per product*
- The Secretariat notes that physical allocation methods are advised (*pg. 93 Scope 3 Standard*), which implies that energy consumption (which would include energy losses) would be allocated to individual components in a manner that is proportional to physical properties, should allocation be unavoidable.

E1.6 | Examples of energy loss

1. Electric motor bearings:

- Component manufacturer produces bearings used in electric motors
- The downstream system is an industrial electric motor driving a pump
- Friction in bearings contributes to energy losses
 - Current guidance suggests 1) no direct use-phase emissions and 2) no indirect use-phase emissions (as the bearing does not indirectly require energy during use)
- **Should the bearing manufacturer account for a portion of use-phase energy loss?**

2. Insulation materials:

- Manufacturer produces insulation used industrial equipment
- The downstream system is industrial equipment
- Inefficiencies in the insulation increases the energy demand for that equipment
 - As with #1, there are no direct- and no indirect use-phase emissions in current guidance
- **Should the insulation manufacturer account for a portion of use-phase energy loss?**

E1.6 | Discussion points

- **Is the ambiguity in the guidance causing material inconsistency in practice?**
 - Are we observing **materially different emissions in category 10 and/or 11** for similar products in similar sectors?
- **Would clarifying the inclusion of energy loss clarify, or result in over-engineering of the rules?**
 - **Current rules are activity-based.** Explicitly accounting for such loss may lead to over-specification with **risks of double counting, misalignment with emission factors, excessive modelling burden**
- **How would a manufacturer of a component that does not currently account for direct- or indirect-use phase emissions reasonably estimate emissions?**
 - Physical allocation is currently suggested within the *Technical Guidance (Example 11.3, pg. 124)* but this example has been highlighted multiple times as potentially be inconsistent with current guidance on which final and intermediate products should account for direct- and indirect-use phase emissions.
- **Does the TWG know of any sector-specific guidance that builds on the GHG Protocol, but addresses this issue specifically?**

E1.6 | Potential options*

- **1) Do nothing**
 - Accept implicit treatment is not causing material differences in inventory results and doesn't go against the principles of the GHG Protocol
- **2) Clarifying energy losses are included and shall not be separately quantified**
 - Similar to do nothing, but acknowledge the data usually implies energy losses.
 - Explicitly allow exclusion for component manufacturers that wouldn't otherwise have processing or use emissions
- **3) Clarifying energy losses are included, and may be separately quantified**
 - Recognize that activity data and emission factors already tend to implicitly include this
 - Suggest that component manufacturers should include emissions if deemed significant
- **4) New requirement**
 - Explicit required inclusion rules for all components in a system where energy loss occurs.

Decision-making criteria for E1.6

<i>Criteria</i>	Option 1: Do nothing	Option 2: Included, no separate quantification	Option 3: Included, may be separate quantified	Option 4: New requirement (broaden scope to all components)
1A. Scientific integrity	<p>Pros: Activity data and emission factors implicitly include this information; Avoids artificial separation</p> <p>Cons: Does not address cases where components are responsible for energy losses</p>	<p>Pros: Reflects physical reality that losses are embedded in energy consumptions; avoids artificial separation</p> <p>Cons: Does not address cases where components are responsible for energy losses</p>	<p>Pros: Acknowledges losses can be material and component specific</p> <p>Cons: Encourages widespread adoption of allocation methods; risk of inconsistent accounting choices</p>	<p>Pros: Treats energy losses as an explicit causal outcome</p> <p>Cons: Risks overstating precision, without any improvement in accuracy; requires significant allocation and assumptions</p>
1B. GHG accounting and reporting principles	<p>Pros: Preserves consistency, avoids risks of double counting</p> <p>Cons: Leaves ambiguity unaddressed, potentially impacting transparency; Potential incomplete accounting for some</p>	<p>Pros: Preserves consistency, avoids risks of double counting. Addresses ambiguity</p> <p>Cons: Potential incomplete accounting for some</p>	<p>Pros: Preserves consistency of required scope. Addresses ambiguity. Improves relevance for some</p> <p>Cons: Increased risk of double counting</p>	<p>Pros: Maximizes completeness; addresses ambiguity, improves relevance</p> <p>Cons: Increased risk of double counting or inaccurate reporting</p>
2A. Support decision making that drives ambitious global climate action	<p>Pros: Focusses attention on system-wide emissions</p> <p>Cons: May under-communicate role of loss-reducing actions</p>	<p>Pros: Retains focus on system-wide emissions</p> <p>Cons: Provides limited signal for efficiency-improving measures</p>	<p>Pros: Provides more granular insight into decarb opportunities</p> <p>Cons: May incentivize modelling with limited actual materiality</p>	<p>Pros: Provides clearer signal to improve energy efficiency in parts</p> <p>Cons: Risks incentivizing modelling burden over action for most</p>
2B. Support programs based on GHG Protocol and uses of GHG data	<p>Pros: Remains fully interoperable</p> <p>Cons:</p>	<p>Pros: Remains fully interoperable</p> <p>Cons:</p>	<p>Pros: Flexible approach allows for interoperability to be retained</p> <p>Cons: Harder for downstream programs to standardize treatment</p>	<p>Pros:</p> <p>Cons: Diverges with existing calculation frameworks, harder for downstream programs to standardize</p>
3. Feasibility to implement	<p>Pros: No burden; no transition impact; Accessible for all reporters</p>	<p>Pros: Low burden, no new data requirements</p>	<p>Cons: High modelling and data burden, requires judgement on materiality and attribution.</p>	<p>Cons: High burden for modelling and data collection</p>

(Draft; for discussion)

E1.7 Accounting for non-physical products or services

E1.7 | Original feedback under consideration

- Category 11 definitions lend themselves to physical products more cleanly than non-physical products
- Since publication in 2011, there has been a major shift in the amount of software products available and their uses in intermediate and final user applications
- **Key feedback themes:**
 - Ambiguity regarding how downstream emissions attributable to powering consumer devices that operate software services should be allocated
 - Some noted that whilst “web-based software” imply inclusion, it is not given clear methodological direction
 - Unclear attribution when software components contribute to a complex systems can be allocated based on a physical allocation basis (or if they should be)

E1.7 | Existing guidance

- A product is defined as “any good or service” (*Scope 3 Standard, pg. 140*)
- Both category 10 and 11, therefore, both implicitly includes any good or service sold by a reporting company:
 - Table 5.4 *Scope 3 Standard* category descriptions:
 - **Processing of sold products:** Processing of intermediate products sold in the reporting year by downstream companies
 - **Use of sold products:** End use of goods and services sold by the reporting company in the reporting year
- Current rules lean towards physical goods, however. E.g., for cat 11:
 - **Direct use-phase emissions** are defined as emissions from products that directly consume energy (fuels or electricity) during use; Fuels and feedstocks; Greenhouse gases and products that contain or form greenhouse gases that are emitted during use (*pg. 155 Technical Guidance*)
 - **Indirect use-phase emissions** includes emissions from products that indirectly consume energy (fuels or electricity) during use (*Table 5.8 Scope 3 Standard*)
- **Importantly, “web-based software” is provided as an example of a product with direct use-phase emissions** (*Table 5.8 Scope 3 Standard*)
- **On the whole, though, emissions from sold services are accounted for in other categories (e.g., scope 1, scope 2, downstream leased assets). Category 11 is not designed to be a catch-all for uncategorized emissions.**

E1.7 | Examples of non-physical products

1. Web-based software

- **Reporting company:** Software provider (web application)
- **Energy consumption occurs in:**
 - Use of user devices (phones and laptops); Data centers; Network infrastructure
- **Currently web-based software is listed as an example of a product that directly consumes energy during use.**
- **Observed ambiguities:**
 - The software itself does not consume energy. Energy is only consumed indirectly.
 - Existing guidance does not present allocation rules, or indicate if incremental and background energy use should be distinguished

2. Other software (non-web based)

- **Reporting company:** software provided for GPS navigation for aircraft
- **Energy consumption occurs in:**
 - Auxiliary energy used in plane; Data centers; Network infrastructure
- **Observed ambiguities:**
 - Existing guidance does not suggest whether any energy use (either from the planes full energy use, or auxiliary energy use) should be allocated to the reporting company beyond the energy required to use the software.

E1.7 | Discussion points

- **Is this an accounting issue, or a categorization discomfort?**
 - Are the problems / ambiguities the result of: unclear definitions, lack of examples, or misalignment with how people intuitively think about non-physical products and services
- **What constitutes 'use-phase' of software?**
 - Are there any accounting frameworks available that build on the GHG Protocol and provide better guidance?
 - Should energy accounting be incremental or include the background operation of relevant user devices?
 - To what extent do we anticipate double-counting with purchased goods/services. How can this be avoided?
- **Is the direct and indirect-use phase distinction fit for non-physical products?**
 - Are practitioners interpreting 'web-based software' (*Table 5.4 Scope 3 Standard*) as an example of a product with direct use-phase emissions correctly?
- **Should this revision resolve, constrain, or defer the issue to sector-specific guidance?**

(Draft; for discussion)

Next Steps

Next steps

- GHG Protocol Secretariat:
 - Distribute the Recording
 - Distribute Meeting Minutes and the Feedback Form
 - Distribute a survey on the options and considerations for 3.10 and 3.11 so far
- TWG:
 - Share any relevant sector-specific guidance you think the Secretariat should consider for ongoing and future 3.10 and 3.11 topics
- Next meeting:
 - **February 21th Meeting #9 at 9 - 11 AM ET**

Thank you!

Alexander Frantzen
Scope 3 Manager, WRI
alexander.frantzen@wri.org

Luke Jones
Scope 3 Manager, WBCSD
jones@wbcsd.org

Claire Hegemann
Scope 3 Associate, WRI
claire.hegemann@wri.org



(Draft; for discussion)

Appendix A.

Category 10 and 11 issues

(Draft; for discussion)

E2. Quantification methodologies for durable products

Stakeholder Feedback

- Several stakeholders reported that depreciating, amortizing, and/or annualizing emissions from products (particularly more durable products) would make reporting more comparable year-to-year, help establish sensible baselines, and create more meaningful key performance indicators.
- Aggregating forward- and previous-year emissions are noted to limit the efficacy of net zero targets that rely on absolute, aggregate inventories to inform decarbonization. A distortionary effect may also have implications for assessing potential emission reductions associated with other activities, including those related to circularity.
- A straight-line stock-based amortization approach was suggested, although the Secretariat notes that more complex approaches may be possible (e.g., those that account for changes in product use through time). Such a method would require estimate the number of sold products current in circulation (prior to end-of-life) in each reporting year.
- Others suggested that some products (such as software) would be better assessed through a usage-data method, as an alternative annualization approach. In this case, real-time measurements of product use can be used to generate reporting year data, and also update base year and previous year calculations.

Current requirements on lifetime vs. amortized emissions

- **Capital goods:**
 - “[...] companies **should not depreciate, discount, or amortize** the emissions from the production of capital goods over time. Instead companies should account for the total cradle-to-gate emissions of purchased capital goods in the year of acquisition, the same way the company accounts for emissions from other purchased products in category 1.” (Box 5.4, p. 39)
- **Sold products:**
 - “Because the scope 3 inventory accounts for total lifetime emissions of sold products, companies that produce more durable products with longer lifetimes could appear to be penalized because, as product lifetimes increase, scope 3 emissions increase, assuming all else is constant. **To reduce the potential for emissions data to be misinterpreted, companies should also report relevant information such as product lifetimes and emissions intensity metrics to demonstrate product performance over time. Relevant emissions intensity metrics may include annual emissions per product, energy efficiency per product, emissions per hour of use, emissions per kilometer driven, emissions per functional unit, etc.**” (Box 5.8, p. 49)

Current guidance on reporting of historic and future scope 3 emissions

- **11.2 Optional information (p. 122)**
 - “Historic scope 3 emissions that have previously occurred, reported separately from future scope 3 emissions expected to occur as a result of the reporting company’s activities in the reporting year (e.g., from Waste generated in operations, Use of sold products, End-of-life treatment of sold products)”
- **11.3 Reporting guidance (p. 124)**
 - “Optional reporting: Historic scope 3 emissions that have previously occurred, reported separately from future scope 3 emissions expected to occur as a result of the reporting company’s activities in the reporting year
 - Emissions reported for category 5 (Waste generated in operations), category 11 (Use of sold products), and category 12 (End-of-life treatment of sold products) should not be interpreted to mean that emissions have already occurred, but rather that the reported emissions are expected to occur as a result of activities that occurred in the reporting year.
 - Companies may separately report historic emissions (that have already occurred) from future emissions (that have not yet occurred) in order to avoid misinterpretation by stakeholders”

Category 11 (current standard): **activity-driven** boundary delineation

- Account for and report:
 - All downstream (“total expected lifetime” emissions in the year that a product is sold (**activity**))
 - Effectively, the gate-to-grave emissions of **goods and services sold** (**activity**) by a company
- The above **mirrors** Category 1
 - All upstream (cradle-to-gate) emissions of **goods and services purchased** (**activity**) by a company
- Combining Category 11 and Category 1
 - This yields the full life cycle (cradle-to-grave) emissions of the company’s **activities**

Alternative approach: **emissions-driven** boundary delineation for Cat. 11

- Account for and report:
 - All 'in-year' **emissions** from the use of all products in circulation
- This may *not mirror* Category 1
 - All upstream (cradle-to-gate) emissions of goods and services purchased (**activity**) by company
- Combining Category 11 and Category 1
 - Possibly results in a *proxy* for the full life cycle (cradle-to-grave) emissions of the company's activities (see Appendix D)
 - This is partially a company-perspective (Category 1); and
 - Partially a product-perspective (Category 11)

Comparison of current vs. alternative approach

1. Cumulative vs. annualized – generally shows about the **same total year-over-year**
 - **Emissions-driven** approach would indirectly (non-intuitively) serve as a proxy for the lifetime emissions of sold products, despite only reporting the emissions of products in circulation
 - **Activity-driven** approach more intuitively represents the projected lifetime emissions of sold products (despite the estimation uncertainty or variability)
 2. The **impact** of changing product design, selling low-carbon products, or changing the portfolio of sold products would **not** be clear or apparent for the **emissions-driven** approach
 - The impact of changing product design, selling low-carbon products, or changing the portfolio of sold products **would be clear** and apparent using the current (**activity-driven**) approach
 3. Regardless of the method:
 - Only per unit (i.e., per sold product) metrics effectively show potential efficiency gains (e.g., from durable products), for example, the GHG-intensity or unit product use (a metric)
- Refer to Appendix D for examples

Decision-making criteria for Category 11 *

- **Option 1: Activity driven** – Report cumulative category 11 emissions in the year that a product is sold
- **Option 2: Emissions driven** – Report category 11 emissions occurring in the reporting year (emissions-driven) resulting from product sales that occurred in previous years and the present year

<i>Illustrative example</i>	Option 1: Activity-driven	Option 2: Emissions-driven
1A. Scientific integrity	<ul style="list-style-type: none"> • Cons: Somewhat less scientific 	<ul style="list-style-type: none"> • Pros: More scientific as emissions are accounted in the year they are emitted
1B. GHG accounting and reporting principles	<ul style="list-style-type: none"> • Pros: Transparent, complete, consistent, accurate, relevant 	<ul style="list-style-type: none"> • Pros: Similarly transparent, complete, transparent, accurate, relevant
2A. Support decision making that drives ambitious global climate action	<ul style="list-style-type: none"> • Pros: Shifting product portfolio is reflected immediately • Cons: Durable products disincentivized • Pros: Re-baselining would be easier 	<ul style="list-style-type: none"> • Cons: Companies would not see the benefit of changing their products design. • Durable products disincentivized • Re-baselining would be challenging
2B. Support programs based on GHG Protocol and uses of GHG data	<ul style="list-style-type: none"> • Pros: Harmonizes with other standards and with the <i>Product Standard</i> 	<ul style="list-style-type: none"> • Cons: Would not harmonize with other standards not with the <i>Product Standard</i>
3. Feasibility to implement	<ul style="list-style-type: none"> • Pros: No hassle maintaining records • Cons: Sometimes difficult to estimate 	<ul style="list-style-type: none"> • Cons: More complicated to collect emissions data and maintain records

* The options and preliminary comparisons herein are not designed to be final, complete, or all-encompassing.

(Draft; for discussion)

E3. Forward-year emission factor restrictions

TBD

- *Placeholder (see slide 41)*
- E3. Consider the addition of requirements or recommendations on the use of projected emission factors for grid or other energy decarbonization (e.g., only permit the use of static EFs vs. permitting the use of forward-year depreciating EFs)

(Draft; for discussion)

E4. Best practice guidance for forecast modeling

TBD

- *Placeholder (see slide 41)*
- E4. Provision of additional guidance on other best practice guidance of forecast modelling

(Draft; for discussion)

E5. Additional guidance for allocating emissions to components of complex products (see also E1.2)

TBD

- *Placeholder (see slide 41)*
- E5. Provision of additional guidance on allocation of emissions from complex products to functional and non-functional parts (e.g., electrical monitors / sensors on airplanes)

(Draft; for discussion)

E6. Category 11 metrics

TBD

- *Placeholder (see slide 41)*
- E6. Consider requirements or recommendations on the addition of metrics to contextualize category 10 and 11 emissions

Should the Scope 3 Standard require metrics?

- To support effective category 11 emissions disclosure:
 - Consider **requiring** current and/or **adding further** sold product metrics for disclosure
- Current Scope 3 Standard metrics language:
 - Box 5.7 (Scope 3 Standard, p. 50)
 - Lifetime emissions per product, corporate average emissions (kg CO₂e/km)
 - *Non-emissions metrics: fuel economy (e.g., km per liter)*
 - Box 5.8 (Scope 3 Standard, p. 50)
 - Annual emissions per product, emissions per kilometer driven, emissions per functional unit)
 - *Non-emissions metrics: energy efficiency per product*

Should the Scope 3 Standard require metrics? (continued)

Scope 3 Standard (p. 122)

Section: “Optional reporting: Information on product performance”

“To provide appropriate context related to category 11 (Use of sold products), a public GHG emissions report should include, when applicable, the following additional information:

- Product performance indicators and intensity metrics (e.g., average GHG intensity of sold products, average energy efficiency of sold products, average emissions per hour of use, average fuel efficiency of sold vehicles, average emissions per kilometer driven, GHG intensity of sold fuels, average emissions per functional unit, etc.)
- Annual emissions from the use of sold products (i.e., emissions that occur in a single year from products sold in the reporting year)
- Average lifetime/durability of sold products
- The methodologies and assumptions used to calculate product performance indicators and intensity metrics
- The percentage of sold products that are compliant with standards, regulations, and certifications, where applicable
- A statement explaining why emissions from category 11 (Use of sold products) have increased or decreased over time
- Any sold products not included in the inventory, with justification for their exclusion
- Other relevant information”

Should the Scope 3 Standard require metrics? (continued)

- Questions:
 1. Should any of the metrics (currently defined in the Standard) be required
 2. Should any additional metrics be added (required or optional)
 3. Optionality: Should the disclosure of metrics be required or optional?
- Note: Metrics for a company's entire (Scope 1, 2, and 3, and/or multiple scope 3 categories) will be discussed next year when discussing performance tracking

Potential outcomes

- Consider adding a per unit (sold product) metric as a part of disclosure:
 - This would add an **additional metric** (rather than a change to the corporate inventory)
 - Require such metric to be reported
 - First proxy metric calculation method:
 - Total Company(Scope 1, Scope 2, and Scope 3: Category 1 tCO₂e + Amortized Category 2 tCO₂e + Category 3 + 4 + 5 + 6 + 7 + 8 (using amortized leased asset construction tCO₂e) + 9 + 10 + 11 + 12)
 - Divided by [Total unit product sold]
 - » = tCO₂e/Total unit product sold
 - Exclude Category 14, 15, 17
 - Franchisors can and should report the weighted-average # of their franchisees
 - Second proxy metric calculation method:
 - Sub-total (using product allocation rules) Company(Scope 1, Scope 2, and Scope 3 Category 1 through 12) divided [Sub-total unit product sold]
- Consider adding a metric as a part of disclosure on the proportion of emissions that are believed to occur in the reporting year
 - This would be an additional metric (rather than a change to the corporate inventory)
 - Recommend such metric be reported
 - Allows the expression of annualized data alongside cumulative data, ensuring recalculation of existing scope 3 baselines isn't necessary

(Draft; for discussion)

Appendix B.

Category 11 examples

Not all company-level reporting approaches show efficiency gain

Extending the durability of sold products can increase Category 11 (cumulative) emissions, and possibly also Category 1 (total cradle-to-gate) emissions, despite decreasing (improving) the effective GHG-intensity of an activity (or activities) of the use of said product(s) by a customer.

Some alternative methods of representing the GHG emissions of purchased/sold products for Corporate Carbon Footprint (CCF), i.e., GHG inventory reporting, were explored:

- A. Cumulative Category 1, Cumulative Category 11 – current Standard approach
- B. Cumulative Category 1, [Annualized](#) Category 11
- C. [Annualized](#) Category 1, [Annualized](#) Category 11

Assumptions for a partial* lifecycle PCF

Proxy PCF Lifecycle (Cumulative)					
Sold product	Vacuum A	Vacuum B	Vacuum C	Vacuum D	Vacuum E
Category 1 (tCO ₂ e) - cumulative	<u>1.00</u>	<u>1.00</u>	<u>1.00</u>	<u>1.00</u>	<u>1.00</u>
<i>Lifetime (durability) (years)</i>	<i>5 year</i>	<i>10 year</i>	<i>15 year</i>	<i>20 year</i>	<i>25 year</i>
tCO ₂ e/year	<u>0.25</u>	<u>0.25</u>	<u>0.25</u>	<u>0.25</u>	<u>0.25</u>
Category 11 (tCO ₂ e) - cumulative	1.25	2.50	3.75	5.00	6.25
Total (tCO₂e) - Cumulative PCF *	2.25	3.50	4.75	6.00	7.25
% yoy	n/a	56%	36%	26%	21%

* This is a partial PCF as it only includes cradle-to-gate emissions, excludes scope 1 and 2, and excludes other scope 3 categories (e.g., T&D and EOL); the purpose of this example is to highlight the effect of Category 1 and Category 11 emissions accounting/reporting time boundaries for cumulative/annual figures

A. Cumulative Category 1, Cumulative Category 11 – current Standard approach

Corporate Carbon Footprint (CCF): Cumulative Category 1 emissions and Cumulative Category 11 emissions					
Year	1	2	3	4	5
Category 1 (tCO ₂ e) - cumulative	1.00	1.00	1.00	1.00	1.00
Category 11 (tCO ₂ e) - cumulative	<u>1.25</u>	<u>2.50</u>	<u>3.75</u>	<u>5.00</u>	<u>6.25</u>
Vacuum A	1.25	0.00	0.00	0.00	0.00
Vacuum B		2.50	0.00	0.00	0.00
Vacuum C			3.75	0.00	0.00
Vacuum D				5.00	0.00
Vacuum E					6.25
Total (tCO₂e) - Cumulative CCF	2.25	3.50	4.75	6.00	7.25
% yoy	n/a	56%	36%	26%	21%

B. Cumulative Category 1, Annualized Category 11

Corporate Carbon Footprint (CCF): Cumulative Category 1 emissions and Annualized Category 11 emissions					
Year	1	2	3	4	5
Category 1 (tCO ₂ e) - cumulative	1.00	1.00	1.00	1.00	1.00
Category 11 (tCO ₂ e) - annualized	<u>0.25</u>	<u>0.50</u>	<u>0.75</u>	<u>1.00</u>	<u>1.25</u>
Vacuum A	0.25	0.25	0.25	0.25	0.25
Vacuum B		0.25	0.25	0.25	0.25
Vacuum C			0.25	0.25	0.25
Vacuum D				0.25	0.25
Vacuum E					0.25
Total (tCO₂e) - Partially Annualized CCF	1.25	1.50	1.75	2.00	2.25
% yoy	n/a	20%	17%	14%	13%

C. Annualized Category 1, Annualized Category 11

Corporate Carbon Footprint (CCF): Annualized Category 1 emissions and Annualized Category 11 emissions					
Year	1	2	3	4	5
Category 1 (tCO ₂ e) - annualized	<u>0.20</u>	<u>0.30</u>	<u>0.37</u>	<u>0.42</u>	<u>0.46</u>
Vacuum A	0.20	0.20	0.20	0.20	0.20
Vacuum B		0.10	0.10	0.10	0.10
Vacuum C			0.07	0.07	0.07
Vacuum D				0.05	0.05
Vacuum E					0.04
Category 11 (tCO ₂ e) - annualized	<u>0.25</u>	<u>0.50</u>	<u>0.75</u>	<u>1.00</u>	<u>1.25</u>
Vacuum A	0.25	0.25	0.25	0.25	0.25
Vacuum B		0.25	0.25	0.25	0.25
Vacuum C			0.25	0.25	0.25
Vacuum D				0.25	0.25
Vacuum E					0.25
Total (tCO₂e) - Annualized CCF	0.45	0.80	1.12	1.42	1.71
% yoy	n/a	78%	40%	27%	20%

Per year of use (functional unit of analysis) for products

- This reflects the annualized emissions per year of use of a vacuum cleaner (the functional unit of analysis)
- This results in annualized emissions of a vacuum to decrease year-over-year as the durability (lifespan) of said product increases while holding constant the annual emissions from use

Proxy PCF Lifecycle (Annualized)					
Sold product	Vacuum A	Vacuum B	Vacuum C	Vacuum D	Vacuum E
Category 1 (tCO ₂ e) - annualized	0.20	0.10	0.07	0.05	0.04
Category 11 (tCO ₂ e) - annualized	0.25	0.25	0.25	0.25	0.25
Total (tCO₂e) - Annualized PCF	0.45	0.35	0.32	0.30	0.29
% yoy	n/a	-22%	-10%	-5%	-3%

Comparison* of CCF and PCF figures on cumulative and annualized basis

Total (tCO ₂ e) - Cumulative CCF	2.25	3.50	4.75	6.00	7.25
Total (tCO ₂ e) - Partially Annualized CCF	1.25	1.50	1.75	2.00	2.25
Total (tCO ₂ e) - Annualized CCF	0.45	0.80	1.12	1.42	1.71
Total (tCO ₂ e) - Annualized CCF	n/a	78%	40%	27%	20%
Total (tCO ₂ e) - Cumulative CCF	n/a	56%	36%	26%	21%
Total (tCO ₂ e) - Partially Annualized CCF	n/a	20%	17%	14%	13%
Total (tCO ₂ e) - Cumulative PCF *	2.25	3.50	4.75	6.00	7.25
Total (tCO ₂ e) - Annualized PCF	0.45	0.35	0.32	0.30	0.29
Total (tCO ₂ e) - Cumulative PCF *	n/a	56%	36%	26%	21%
Total (tCO ₂ e) - Annualized PCF	n/a	-22%	-10%	-5%	-3%

* CCF figures and PCF figures are not quantitatively comparable; the purpose of this slide is to showing the year-over-year comparability within a CCF methodology and PCF methodology 1/29/2026 | 99

(Draft; for discussion)

Appendix D:

System allocation / circularity

Items for consideration for system allocation / circularity

- Several respondents suggested that the GHGP needs new or updated rules for emissions attributable to activities associated with circular production and consumption.
- The GHGP **currently recommends the recycled content method** (*Technical Standard p78-79*). Feedback suggests that this rule does not sufficiently encourage circularity
- Topics to be discussed in this package of work will include (exact topics to be refined by Secretariat):

Reference	
TBD	Consider whether the existing Scope 3 Standard (and GHGP) should revise its current guidance on system allocation
TBD	Consider whether recommended/required methods should apply to different cases
TBD	Consider which methods to recommend/require including: - Recycled content, polluter pays, 50/50, variable proportion, double count, others
TBD	Consider whether the GHGP should require the methods agreed upon
TBD	Consider additional reporting metrics to require/recommend to further encourage circularity

(Draft; for discussion)

Appendix C - Series D revisions – survey outputs

Summary of Survey C Outcomes

- **Nearly all votes showed consensus**, even if *quorum* (i.e. 32 votes) was not reached
- For questions that did not exhibit consensus (e.g. Questions 9, 10, 11), the Secretariat will provide language in a 'category-specific boundary package'
- The Secretariat will **distribute a survey to approve the 'category-specific boundary package' (single vote)**
- The detailed results for all questions can be found in **Appendix E** of this presentation
- The Secretariat will also summarize all boundary revisions and non-revisions in a new Table 5.4

Question 1: Cradle-to-gate emissions of fuel/energy for all categories

- **Require ("shall") for all categories – 54%** (21/39)
- Require for some categories – 33% (13/39)
- Optional for all categories ("may") – 13% (5/39)
- Abstain – 9% (4/43)

Question 1.1: Category-specific requirement ("shall") (if applicable)

Majority "shall" (consensus):

- Category 1 (PG&S) 75% (9/13)
- Category 2 (Capital goods) 62% (8/13)
- Category 3 (FERA) 69% (9/13)
- Category 4 (Upstream T&D) 77% (10/13)
- Category 6 (Business travel) 62% (8/13)
- Category 9 (Downstream T&D) 77% (10/13)

Minority "shall" (non-consensus):

- Category 7 (Employee commuting) 23% (3/13)
- Category 8 (Leased assets) 23% (3/13)
- Category 5 (Waste) 23% (3/13)
- Category 10 (Processing) 23% (3/13)
- Category 11 (Use of sold products) 46% (6/13)
- Category 12 (EOL treatment) 15% (2/13)
- Category 13 (Leased assets) 8% (1/13)

Cumulative TWG member opinion (combining Question 1 and 1.1)

- Combining 21 TWG votes of “shall” for **all** categories, 13 TWG votes of “shall” for **some** categories, and treating all remaining votes as optional (excluding abstentions) results in the following:

Total <u>Shall</u>	Total <u>Optional</u>	Category name	Cumulative opinion	
			% shall	% optional
30	9	Category 1	77%	23%
29	10	Category 2	74%	26%
30	9	Category 3	77%	23%
31	8	Category 4	79%	21%
24	15	Category 5	62%	38%
29	10	Category 6	74%	26%
24	15	Category 7	62%	38%
24	15	Category 8	62%	38%
31	8	Category 9	79%	21%
24	15	Category 10	62%	38%
27	12	Category 11	69%	31%
23	16	Category 12	59%	41%
22	17	Category 13	56%	44%

“Shall” include cradle-to-gate emissions of fuel/energy for all categories

Question 1: Cradle-to-gate emissions of fuel/energy for all categories

Question 1.1: Category-specific requirement (“shall”) (if applicable)

NO Follow-up:

- The Secretariat will distribute a survey to approve the ‘category-specific boundary package’ (single vote)
- The Secretariat will *require* (“shall”) the inclusion of the cradle-to-gate emissions of fuels/energy for all scope 3 categories for the ISB for review and approval
- The Secretariat will present results from Question 1, Question 1.1, and the cumulative member opinion (previous slide 41) to the ISB for a final decision

Question 2: Cradle-to-grave emissions of embodied capital goods

Cradle-to-gate (embodied) emissions of capital goods used by value chain partners to perform scope 3 category activities (allocated)

- Require ("shall") for categories 1, 2, 3, 4, 5, 6, 8, 9, and 12, 14, 15 – 27% (10/37)
- Require ("shall") for some categories – 19% (7/37)
- **Optional for all categories ("may") – 54%** (20/37)
- Abstain – 14% (6/43)

Question 2.1: Category-specific requirement ("shall")

Majority "shall" (consensus):

- Category 1 (PG&S) – 57% (4/7)
- Category 2 (Capital goods) – 71% (5/7)
- Category 3 (FERA) – 86% (6/7)
- Category 8 (Leased assets) – 71% (5/7)

Minority "shall" (non-consensus):

- Category 4 (Upstream T&D) – 29% (2/7)
- Category 5 (Waste) – 14% (1/7)
- Category 9 (Downstream T&D) – 29% (2/7)
- Category 6 (Business travel) – 0% (0/7)
- Category 12 (EOL treatment) – 29% (2/7)
- Category 14 (Franchises) – 0% (0/7)
- Category 15 (Investments) – 0% (0/7)

Cumulative TWG member opinion (combining Question 2 and 2.1)

- Combining 10 TWG votes of “shall” for **all** categories, 7 TWG votes of “shall” for **some** categories, and treating all remaining votes as optional (excluding abstentions) results in the following:

Total Shall	Total Optional	Category name	Cumulative opinion	
			% shall	% optional
14	25	Category 1	36%	64%
15	24	Category 2	38%	62%
16	23	Category 3	41%	59%
12	27	Category 4	31%	69%
11	28	Category 5	28%	72%
10	29	Category 6	26%	74%
15	24	Category 8	38%	62%
12	27	Category 9	31%	69%
12	27	Category 12	31%	69%
10	29	Category 14	26%	74%
10	29	Category 15	26%	74%

“May” include cradle-to-gate emissions of embodied capital goods for all categories

Question 2: Cradle-to-gate (embodied) emissions of capital goods used by value chain partners to perform scope 3 category activities (allocated)

Question 2.1: Category-specific requirement (“shall”) (if applicable)

NO Follow-up:

- The Secretariat will distribute a survey to approve the ‘category-specific boundary package’ (single vote)
- The Secretariat will maintain the *optionality* (“may”) inclusion of the cradle-to-gate emissions of capital goods used by value chain partners to perform all scope 3 categories for the ISB for review and approval
- The Secretariat will present results from Question 2, Question 2.1, and the cumulative member opinion (previous slide 45) to the ISB for a final decision

Question 2.3: What name should be used for said emissions?

- Non-attributable emissions... of capital goods used by value chain partners – 0% (0/37)
- **Cradle-to-gate emissions... of capital goods used by value chain partners – 54%** (20/37)
- Embodied emissions... of capital goods used by value chain partners – 32% (12/37)
- Allocated emissions... of capital goods used by value chain partners – 4% (3/37)
- Other – 11% (4/37)
- Abstain – 14% (6/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote) relying on the outcome of this Question 2.3

Question 3: Prudence requirement (D20.1)

- **Support – 92%** (35/38)
- Oppose – 8% (3/38)
- Abstain – 12% (5/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote)

Question 4: Exception to disaggregation rule

Exception to disaggregation rule for required/optional emissions (D20.2)

- **Support – 92%** (35/38)
- Oppose – 8% (3/38)
- Abstain – 12% (5/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote)

Question 5: Dedicated infrastructure (D20.3)

- **Support – 90%** (26/29)
- Oppose – 10% (3/29)
- Abstain – 33% (14/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote)

Question 6: Justified exclusion of cradle-to-gate emissions (D20.4)

- **Support – 72%** (26/36)
- Oppose – 28% (10/36)
- Abstain – 16% (7/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote)

Question 7: Description and CTG minimum boundary for Cat.1

D1.1 No change to the description of category 1 activities nor the cradle-to-gate minimum boundary for category 1

- **Support – 86%** (32/37)
- Oppose –14% (5/37)
- Abstain – 14% (6/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote)

Question 8: D1.3 Business travel and accommodation

D1.3 Account for value chain partner business travel and accommodation in cat.1

- **Support (shall in Cat.1) – 46%** (19/41)
- Oppose (shall in Cat.6) – 15% (6/41)
- Oppose (should/may in Cat.6) – 32% (13/41)
- Neither option – 7% (3/41)
- Abstain – 5% (2/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote)
- The Secretariat will propose that it be included in Cat.1 (shall), subject to the 5% exclusion threshold

Question 9: Commuting to reporting company owned worksites

D1.4a Account for commuting by value chain partner to and from reporting company owned or operated worksites in category 1

- Option 1: shall account in Cat.1 – **24%** (8/34)
- Option 2: may account in Cat.1 – **24%** (8/34)
- Option 3: shall account in Cat.7 – **29%** (10/34)
- Option 4: may account in Cat.7 – **24%** (8/34)
- Abstain – 19% (8/42)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote) relying on the outcome of this Question 9
- Required ("shall") inclusion of emissions associated with value chain partner commuting to and from reporting company owned or operated worksites; let users report in *either* category 1 or category 7

Question 10: Commuting to value chain partner owned worksites

D1.4b Account for commuting by a value chain partner to and from the value chain partner's owned, operated, or leased worksites in category 1

- Option 1: shall account in Cat.1 – 22% (7/32)
- Option 2: may account in Cat.1 – **31%** (10/32)
- Option 3: shall account in Cat.7 – 13% (4/32)
- Option 4: may account in Cat.7 – **34%** (11/32)
- Abstain – 21% (6/28)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote) relying on the outcome of this Question 10
- Optional ("may") inclusion of emissions associated with value chain partner commuting to and from value chain partner owned, Operated, or leased worksites; let users report in *either* category 1 or category 7

Question 11: D1.5 Account for third-party conferences (if any) in cat.1

- Option 1: shall account in Cat.1 – 19% (6/31)
- **Option 2: may account in Cat.1 – 55%** (17/31)
- Option 3: shall account in Cat.7 – 10% (3/31)
- Option 4: may account in Cat.7 – 16% (5/31)
- Abstain – 26% (11/42)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote) relying on the outcome of this Question 11
- Optional ("may") inclusion of emissions associated with third-party conference (if any) category 1

Question 12: D1.6 Proposed definition of external stakeholder

- **Support – 94%** (33/35)
- Oppose – 6% (2/35)
- Abstain – 19% (8/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote)

Question 13: D2.1 Description of capital goods (minor editorialization)

- **Support – 100%** (41/41)
- Oppose – 0% (0/41)
- Abstain – 5% (2/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote)

Question 14: D2.2 No change to the CTG minimum boundary for cat.2

- **Support – 90%** (36/40)
- Oppose – 10% (4/40)
- Abstain – 7% (3/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote)

Question 15: Unamortized emissions of purchased capital goods

D2.4 Unamortized emissions of purchased capital goods (including second-hand capital goods)

- **Support – 91%** (30/33)
- Oppose – 9% (3/33)
- Abstain – 23% (10/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote)

Question 16: D2.5 Box 5.4 Accounting for emissions from capital goods

- **Support – 85%** (33/39)
- Oppose – 15% (6/39)
- Abstain – 9% (4/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote)

Question 17: Require lessees to report embodied emissions of leased assets

D2.6 Connection with the proposed requirement to require lessees to report embodied emissions of leased assets

- **Support – 70%** (26/37)
- Oppose – 30% (11/37)
- Abstain – 14% (6/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote)

Question 18: D3.1 Edits to description of cat.3 activities, Table 5.4

- **Support – 88%** (30/34)
- Oppose – 12% (4/34)
- Abstain – 14% (9/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote)

Question 19: D3.2 & D3.3 Description of activities in cat.3 (FERA)

- **Support – 90%** (30/33)
- Oppose – 10% (3/33)
- Abstain – 23% (10/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote)

Question 20: D4.1 & D4.2 Cat.4 description to include empty trips (proposed)

- **Support – 94%** (32/34)
- Oppose – 6% (2/34)
- Abstain – 21% (9/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote)

Question 21: D4.6 Rules for Cat.4 vs Cat.9 activity classification

- No change – **34%** (11/32)
- Gate principle – **38%** (12/32)
- Payment principle – **25%** (8/32)
- Other – 3% (1/32)
- Abstain – 26% (11/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote)

Question 22: D5.0 No change to the current boundary

- **Support – 97%** (33/34)
- Oppose – 3% (1/34)
- Abstain – 21% (9/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote)

Question 23: D5.1 Include transportation of waste in the required boundary

- **Support – 92%** (36/39)
- Oppose – 8% (3/39)
- Abstain – 9% (4/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote)

Question 24: D6.1 & D6.2 Requiring accommodation (e.g. hotel stays)

- **Support – 84%** (32/38)
- Oppose – 16% (6/38)
- Abstain – 12% (5/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote)

Question 25: D6.3 Ch. 5 footnote 7 revision to the definition of an employee

- **Support – 94%** (33/25)
- Oppose – 6% (2/35)
- Abstain – 19% (8/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote)

Question 26: D6.4 Minimum boundary revision for cat.6

- **Support – 86%** (31/36)
- Oppose – 14% (5/36)
- Abstain – 16% (7/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote)

Question 27: Description of employee commuting

D7.1 Description of employee commuting to include remote worksites

- **Support – 89%** (34/38)
- Oppose – 11% (4/38)
- Abstain – 12% (5/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote)

Question 28: D7.2 Boundary revision to Cat.7

- **Support – 87%** (34/39)
- Oppose – 13% (5/39)
- Abstain – 9% (4/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote)

Question 29: Edits to footnote 7, employee classification

D7.5 & D7.6 Edits to footnote 7 regarding employees and paid non-employees classification

- **Support – 88%** (29/33)
- Oppose – 12% (4/33)
- Abstain – 23% (10/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote)

Question 30: D8.1 Cat.8 Description

- **Support – 100%** (38/38)
- Oppose – 0% (0/38)
- Abstain – 12% (5/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote)

Question 31: D8.2 Required boundary editorialization

- **Support – 100%** (37/37)
- Oppose – 0% (0/37)
- Abstain – 14% (6/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote)

Question 32: Unamortized upstream emissions of constructing leased assets

D8.5 Lessees shall account for unamortized upstream (cradle-to-gate) emissions associated with constructing leased assets

- **Support – 69%** (25/36)
- Oppose – 31% (11/36)
- Abstain – 16% (7/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote)

Question 33: D9.1 Empty trips required in Cat.9

- **Support – 94%** (31/33)
- Oppose – 6% (2/33)
- Abstain – 23% (10/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote)

Question 34: D9.2 Required emissions boundary for Cat.9

- **Support – 89%** (32/37)
- Oppose – 11% (4/37)
- Abstain – 16% (7/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote)

Question 35: D9.3 Required boundary of CTG emissions of fuel/energy

- **Support – 95%** (33/35)
- Oppose – 5% (2/35)
- Abstain – 19% (8/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote)

Question 36: D9.4 Optional boundary for Cat.9 maintained

- **Support – 91%** (32/35)
- Oppose – 9% (3/35)
- Abstain – 19% (8/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote)

Question 37: D4.4 & D4.5 Inclusion of CTG emissions of capital goods

- **Support – 67%** (18/27)
- Oppose – 33% (9/27)
- Abstain – 37% (16/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote)

Question 38: D12.1 Required boundary revision for Cat.11

- **Support – 97%** (34/35)
- Oppose – 3% (1/36)
- Abstain – 16% (7/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote)

Question 39: D13.1 Description for Cat.13

- **Support – 100%** (35/35)
- Oppose – 0% (0/35)
- Abstain – 19% (8/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote)

Question 40: D13.2 No revision to minimum boundary for Cat.13

- **Support – 97%** (32/33)
- Oppose – 3% (1/33)
- Abstain – 23% (10/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote)

Question 41: D13.4 Required boundary revision to Cat.13

- **Support – 80%** (24/30)
- Oppose – 20% (6/30)
- Abstain – 30% (13/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote)

Question 42: D13.5 Required boundary revision to Cat.13 (cont'd)

- **Support – 71%** (20/28)
- Oppose – 29% (8/28)
- Abstain – 35% (15/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote)

Question 43: D13.6 Optional boundary revision to Cat.13

- **Support – 87%** (10/23)
- Oppose – 13% (3/23)
- **Abstain – 47%** (20/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote)

Question 44: D14.1 Description for Cat.14

- **Support – 100%** (34/34)
- Oppose – 0% (0/34)
- Abstain – 21% (9/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote)

Question 45: D14.2 & D14.3 Required boundary revision

- **Support – 90%** (27/30)
- Oppose – 10% (3/30)
- Abstain – 30% (13/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote)

Question 46: D14.5 & D14.6

- **Support – 92%** (22/24)
- Oppose – 8% (2/24)
- Abstain – 44% (19/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote)

Question 47: Guidance for exclusive franchise agreements

D14.8 & D14.9 Quantification guidance for exclusive franchise agreements

- **Support – 95%** (19/20)
- Oppose – 5% (1/20)
- **Abstain – 54%** (23/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote)

Question 48: D15.20 New sub-category added to cat.15

- **Support – 100%** (32/32)
- Oppose – 0% (0/32)
- Abstain – 26% (11/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote)

Question 49: D15.21 New glossary definition

- **Support – 100%** (21/21)
- Oppose – 0% (0/21)
- **Abstain – 51%** (22/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote)

Question 51: Purchased made using compensation payments

D15.2 Requiring products/services purchased using compensation payments

- **Support – 83%** (20/24)
- Oppose – 17% (4/24)
- **Abstain – 44%** (19/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote)

Question 52: Categorization of compensation payments language

Should the language from Question 51 be added to guidance in Category 1, purchased goods and services, (as either shall, should, or may, depending on your answer to [D15.2]) rather than be buried in Category 16?

- **Support – 81%** (17/21)
- Oppose – 19% (4/21)
- **Abstain – 51%** (22/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote)

Question 53: D16.20 Do you support language for 16.4 Licensing?

- **Support – 95%** (18/19)
- Oppose – 5% (1/19)
- **Abstain – 56%** (24/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote)

Question 54: 16.5 Distributors for fuel and/or energy

D16.21 Do you support language for 16.5 distributors for fuel and/or energy?

- **Support – 91%** (20/22)
- Oppose – 9% (2/22)
- **Abstain – 49%** (21/43)

NO Follow-up:

- The Secretariat will distribute a survey to approve the 'category-specific boundary package' (single vote)