Draft for TWG discussion

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Scope 2 Technical Working Group Meeting

Meeting #11

April 2, 2025

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World Business Council for Sustainable Development

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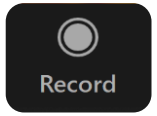

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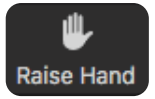

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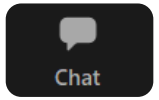

You can also use the chat function in the main control.

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

Be mindful of sharing group discussion time; keep comments as succinct as possible.

Agenda

1. Housekeeping & goals for meeting
2. Feedback from ISB
3. Issue 3: Estimated vs. actual activity data
4. Issue 4: Treatment of residual mix
5. Next steps

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Goals of today's meeting

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Goals of today's meeting

1. **Share key feedback from ISB**

2. **Align on requirements for MBM Issue 3 and Issue 4**
   a. Discuss and poll the group on MBM Issue 3: *Estimated vs. actual activity data*
   b. Discuss and poll the group on MBM Issue 4: *Treatment of residual mix*

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Key issues identified for discussion on market-based method revisions

- **Issue 1:** Vintage and market boundaries
- **Issue 2:** Treatment of standard supply service & voluntary procurement
- **Issue 3:** Estimated vs. actual activity data
- **Issue 4:** Treatment of residual mix
- **Issue 5:** Dual reporting, goal setting and tracking, and additional metrics
- **Issue 6:** Refinement of purposes, uses, and claims; clarifications on reporting impacts

ISB feedback

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March 27th ISB meeting – Feedback on Scope 2 revisions

The following slides summarize initial feedback from ISB members and is for informational purposes only. It does not represent a formal decision or consensus of the ISB.

The pulse check questions were used as an informal tool to gauge indicative support for key elements of the TWG's proposed direction. Results reflect the views of participating members at the time of the meeting and are subject to change as discussions progress.

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March 27th ISB meeting – Feedback on Scope 2 MBM revisions

The Secretariat presented five TWG recommendations, covering time matching, deliverability, Standard Supply Service (SSS) allocation, and any additional restrictions under voluntary procurement.

ISB members were asked if they support the TWG's direction on each topic.

Topic / Question
1. Support requiring stricter temporal alignment for MBM contractual instruments?
2. Support allowing differentiated time matching (vs. universal hierarchy)?
3. Support requiring deliverability for MBM claims?
4. Support requiring evidence of deliverability (vs. proof of delivery in all hours)?
5. Support defining voluntary procurement eligibility based on time matching, deliverability, and fair SSS allocation—with no additional restrictions under MBM?

Takeaway: Broad support for the TWG's proposed direction, with feasibility and implementation clarity noted as key priorities for further work.

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March ISB meeting – Feedback on Scope 2 MBM revisions

The ISB encouraged the TWG to clarify the following points as it further refines these recommendations:

- **Time Matching and Deliverability Feasibility** – Implementation feasibility in regions with limited data infrastructure and ensuring flexibility in a way consistent with inventory accounting principles.

- **Standard Supply Service** – "Pressure test" proposed rules for SSS to ensure clarity, defensibility, and global applicability. Clarify what qualifies as SSS, how it applies in deregulated markets, and how EACs from generators within SSS are treated—especially where EACs may be sold outside the regulated pool.

- **Options for Non-Inventory Claims** – Clarify how organizations can take meaningful action when they either have load in regions where inventory-based claims are limited or wish to support clean energy beyond their own electricity consumption. This includes work underway in the Scope 2 subgroup on consequential emissions measures.

Issue 3: Estimated vs. actual activity data

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Issue 3: Estimated vs. actual activity data

Key Questions

- Should the Scope 2 Standard include guidance on the use of estimated hourly profiles of activity data for market-based reporting when actual hourly data is unavailable?

- If included, should the use of estimated profiles be a **shall**, **should**, or **may** requirement?
  - Should the requirement differ based on factors like consumer load size or total electricity consumption?

- If included, should a hierarchy of types of estimated activity data profiles be established to guide their use?

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Update considerations for estimated vs. actual activity data

Current Guidance:

- The current guidance does not include text on the use of estimated profiles of activity data to enable use of more granular emission factors.

Why this needs clarification now:

- TWG polling strongly supported the use of the most precise temporal interval for which both activity data and contractual instruments are available under the MBM.
- To enable more widespread use of the most temporally precise contractual instruments where actual activity data is unavailable, some proposals consider the use of estimated profiles of activity data as a "**shall"**, **"should"** or "**may"** requirement.
- Other proposals suggest that actual activity data should be prioritized and caution the introduction of estimated profiles of activity data.
- TWG polling on the location-based method suggested that use of estimated profiles of activity data should be allowed.

Examples of *estimated* profiles of activity data

- **Facility-specific load profile**
  - Total facility consumption scaled according to an estimated facility-specific load profile
- **Estimated Hourly Consumption Based on Supplier Load Profiles**
  - Based on actual company monthly meter reads or supplier bills and load profiles used by supplier to determine hourly retail supply obligations provided by supplier
- **Estimated Hourly Consumption Based on Standard Load Profiles**
  - Based on actual company metered monthly or annual data and standardized load profiles for customer type and location (e.g., NREL End-Use Load Profiles for the U.S. Building Stock)
- **Regional publicly available load profile**
  - Total regional consumption scaled according to a general or customer class-specific regional load profile
- **Time-of-use average**
  - Total consumption for time-of-use billing periods (e.g., on-/off-peak hours) scaled to the proportion of electricity consumed during each time-of-use period, then averaging by the number of hours within that time-of-use period
- **Flat average**
  - Total consumption divided by the number of hours in the corresponding period for which data is available (e.g., if a company has daily consumption data, they would divide that total by 24 hours for each day of the year)

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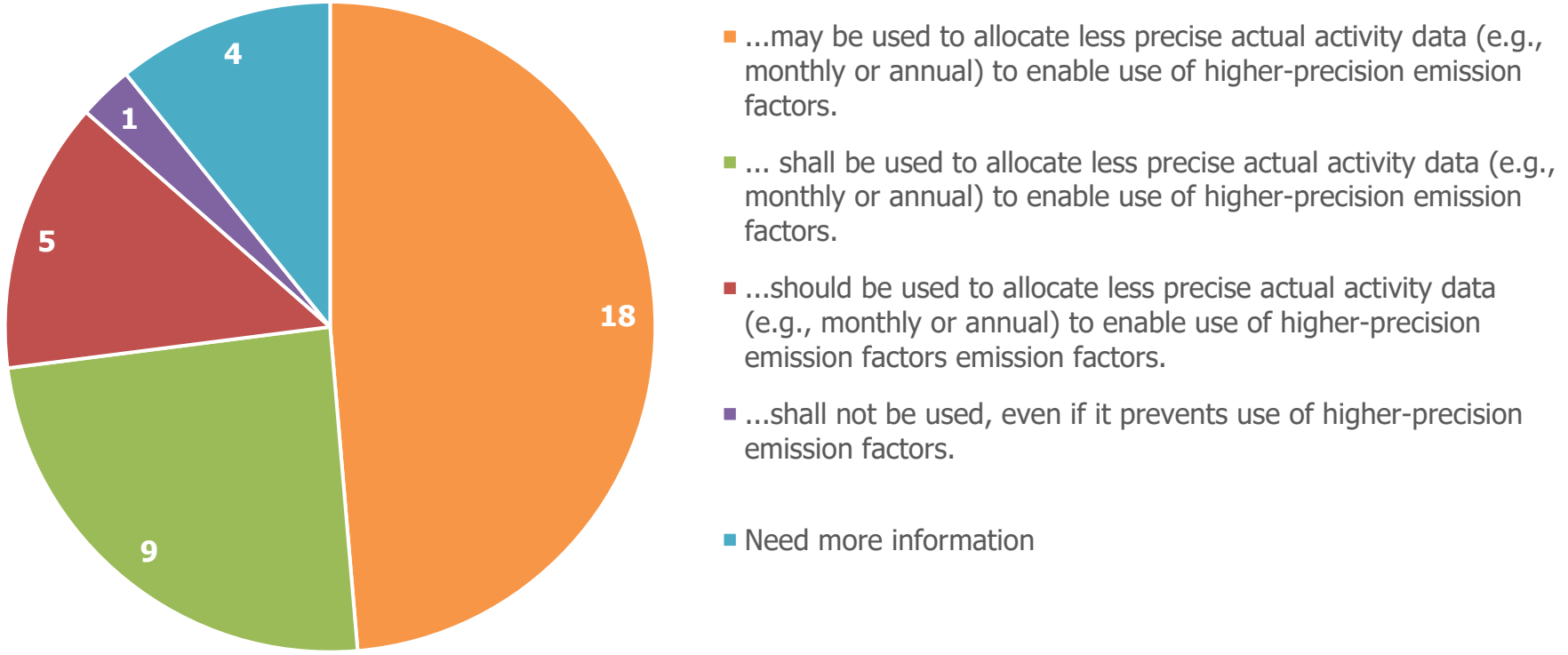
For the LBM, most TWG members supported a *May/ Should* for the use of estimated hourly activity data with some support for a *Shall* requirement

Under the LBM, when actual hourly activity data is not available, activity data estimates using hourly profiles…



Recap of Meeting 7 (Jan 29) Poll 5 Results
Results represented in number of TWG members; includes both synchronous and asynchronous results

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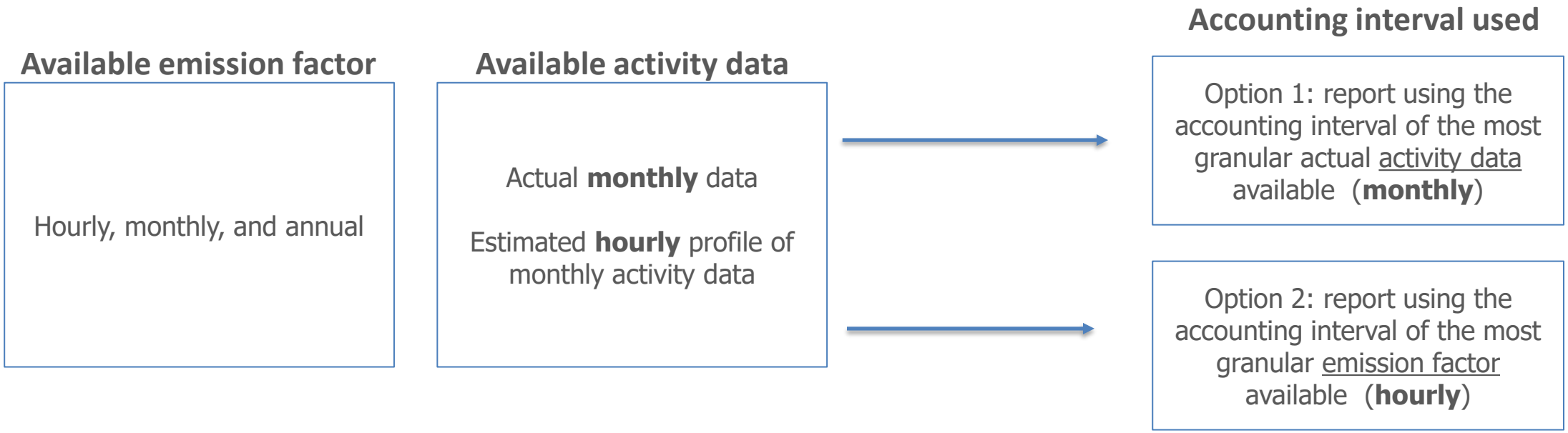
Should guidance be included to allow reporting entities to use estimated profiles of activity data in the MBM?

- Proposals are aligned that activity data and applied EFs need to be for the same accounting interval (i.e., both hourly, both monthly, etc.)
- Should guidance be included on the use of estimated hourly profiles of activity data when actual hourly data is unavailable to enable the use of more granular emission factor data?



Proposed options for implementing use of estimated profiles of activity data in the MBM

Option 2A *{Proposal 2}*

Activity data	Requirement	Applicable to
Actual hourly consumption	**Shall** use highest available precision	All electricity consumption
Estimated hourly consumption based on: • Facility-specific load profile • Regional publicly available load profile • Time-of-use average • Flat average		
Actual monthly consumption	**Shall** use highest available precision	Electricity consumption up to load threshold (e.g. 5 GWh/yr per region)
Estimated monthly consumption based on flat average		
Actual annual consumption		

Option 2B *{Proposal 3}*

Activity data	Requirement	Applicable to
Actual hourly consumption	**Shall** use if available	All electricity consumption
Estimated hourly consumption based on: • Supplier load profiles • Standard load profiles	**May** use if no higher resolution available	
Estimated hourly consumption based on flat load profile	**Should** use if no higher resolution available	
Actual monthly consumption	**Shall** use if available and no higher resolution available	
Actual annual consumption		

Mapping considerations to Decision Making Criteria

	Option 1: No Use of Estimated Activity Data Report using the accounting interval of the most granular actual activity data available	**Option 2: Allow Estimated Activity Data** Report using the accounting interval of the most granular emission factor available, using estimated profiles if actual granular data unavailable
Integrity	Requires use of actual activity data consistent with principles of inventory emissions accounting. May prevent reporter from using the most accurate emission factor data available.	Allows the use of most accurate emission factor data available based on reasonable estimates of activity data variability. Risk of mismatch between estimated profiles and actual usage patterns, potentially distorting emissions outcomes.
Impact	May discourage time-based matching, limiting climate-aligned action. Avoids misuse of modeled data.	Expands time-based claims and supports emerging grid-aligned procurement and consumption. Ambition may vary by profile accuracy.
Feasibility	Introduces no new feasibility constraints for reporters to source estimated profiles of activity data. Limits participation for those without hourly metering	Improves access to hourly EF-based reporting for organizations without advanced metering infrastructure. Profiles may be harder to source, potentially more difficult to audit estimated profiles of activity data than actual data. Constraints on feasibility may differ if requirement is applied as "shall," "should," or "may."

Polling Questions: Use of estimated activity data profiles in Scope 2 accounting

1. Should the revised Scope 2 Standard include guidance to enable the use of estimated hourly activity data profiles (e.g., estimated load profiles) when actual hourly activity data is unavailable?

a. Yes
b. No
c. Need more information

2. If guidance is included, in general how should the use of estimated hourly profiles be treated when available under the MBM? (any exemptions considered in next question)

a. It should be allowed (i.e., "may") as an option for reporters.
b. It should be recommended (i.e., "should") when hourly emission factors are available.
c. It should be required (i.e., "shall") when hourly emission factors are available.
d. It should not be allowed, the most precise actual activity data available should set the accounting interval used.
e. Need more information

3. If use is required or recommended, should exemptions exist for reporters that meet specific characteristics (e.g., total load or consumption level)?

a. Yes
b. No, all reporters should follow the same requirement
c. NA, use of estimated hourly profiles should not be required or recommended
d. Need more information

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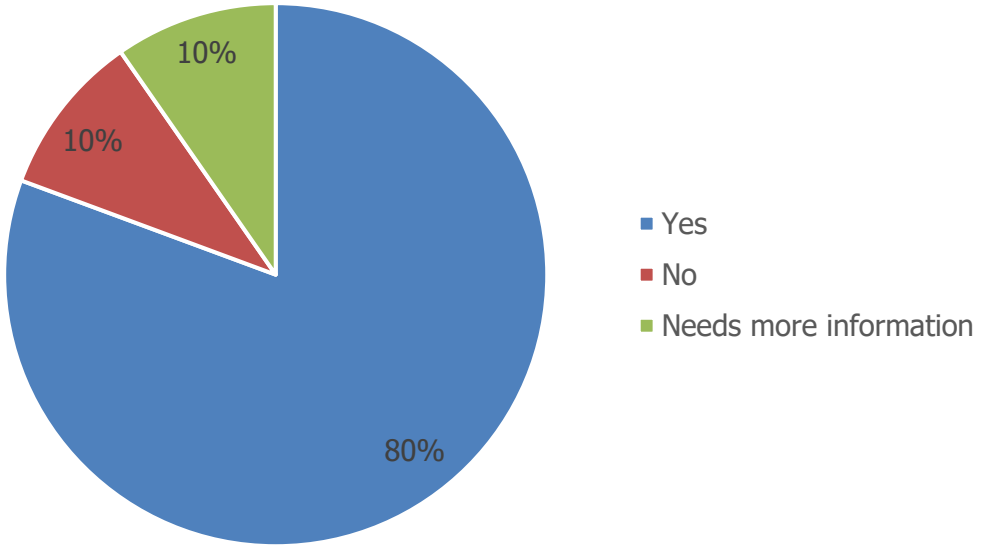
Polling Questions: Use of estimated activity data profiles in Scope 2 accounting

4. If use of estimated activity data profiles is allowed, required or recommended, should a hierarchy of types of estimated activity data profiles be established to guide their use?

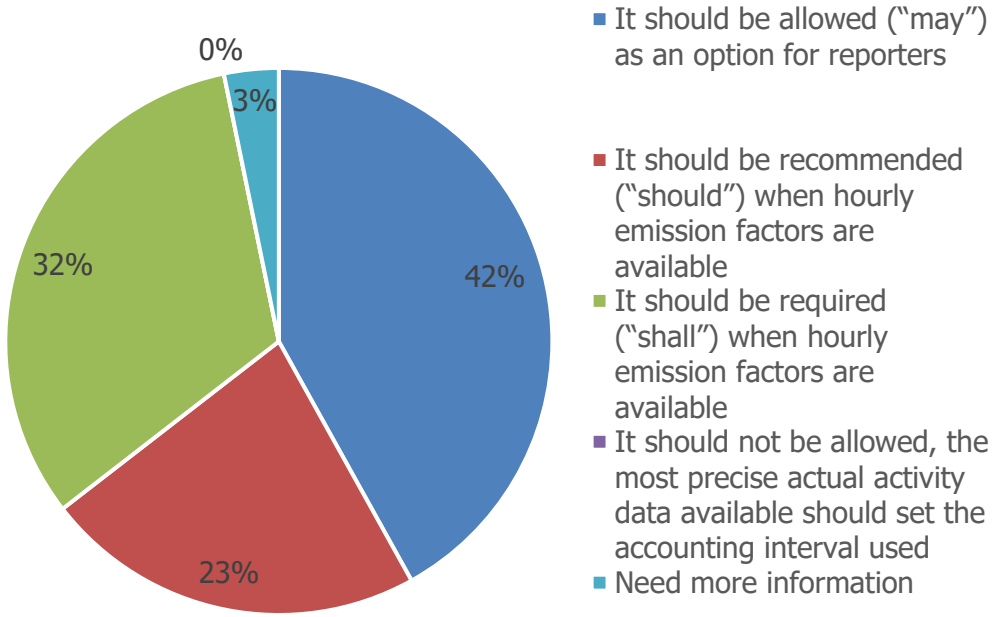
a. Yes
b. No
c. NA, use of estimated activity data profiles should not be allowed.
d. Need more information.

Poll responses, questions 1 & 2

Question 1: Should the revised scope 2 standard include guidance to enable the use of estimated hourly activity data profiles when actual hourly activity data is unavailable?

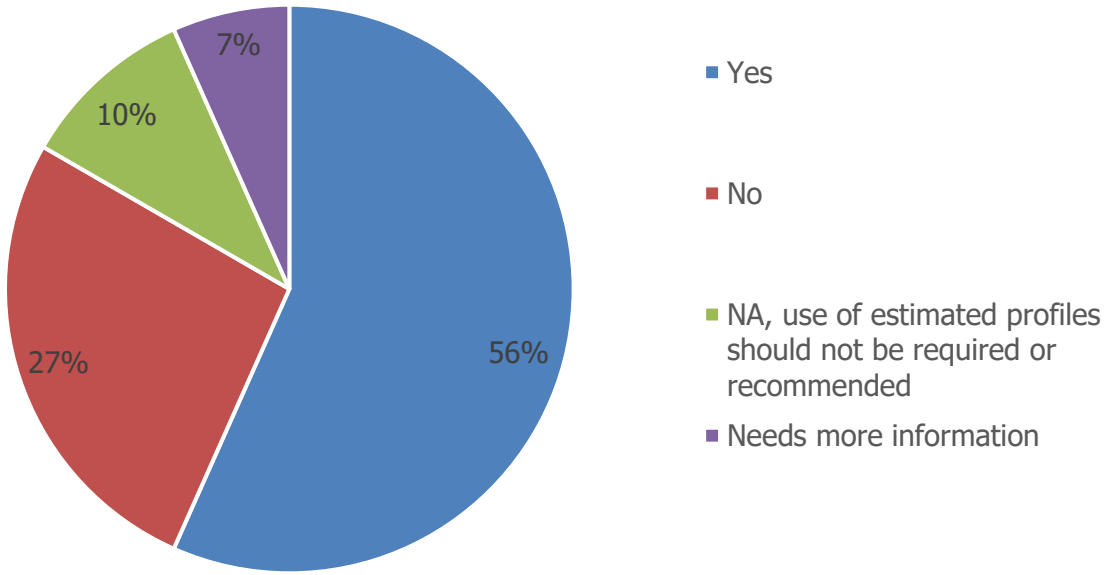


Question 2: If guidance is included, in general how should the use of estimated hourly profiles be treated when available under the MBM?

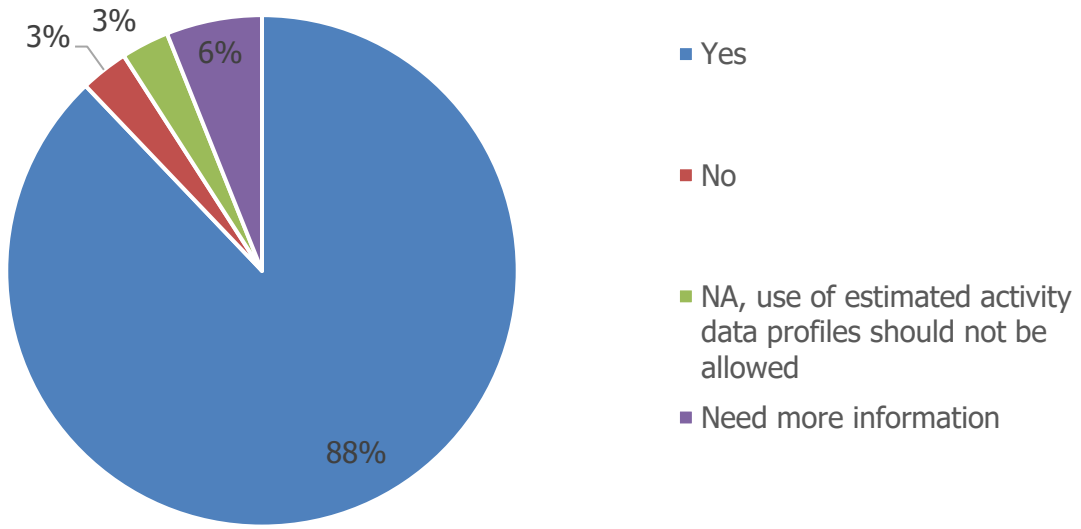


Poll responses, questions 3 & 4

Question 3: If use is required or recommended, should exemptions exist for reporters that meet specific characteristics (e.g. total load or consumption level)?



Question 4: If use of estimated activity data profiles is allowed, required or recommended, should a hierarchy of types of estimated activity data profiles be established to guide their use?



Issue 4: Treatment of residual mix in market-based method

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Issue 4: Treatment of residual mix in market-based method

Key Questions

- Should a residual mix factor (RMF) exclude any carbon-free electricity (CFE) that could be claimed under standard supply service (SSS) or voluntary procurement?
- What structure for RMFs should be defined in Scope 2: a single updated RMF, a fossil-only RMF, or a hierarchy of RMF options?
- What emission factor (EF) should apply in cases when RMFs are not available?
- Should RMF calculation methods be required to align with Scope 2 Quality Criteria (e.g., deliverability, time matching), or can they rely on available data even if those criteria are not met?

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Update Considerations for Residual Mix Accounting in Scope 2

Current Guidance:

- The residual mix is defined as unclaimed *or publicly shared generation* remaining after contractual instrument claims are removed.
- It serves to prevent double counting by attributing emissions only to electricity not already claimed through supplier-specific factors or voluntary procurement.
- Where residual mix data is unavailable, companies must disclose this and acknowledge the resulting risk of double counting.

Why this needs clarification now:

- TWG recommendations in meeting #9 now articulate a more structured *order of claims* in the MBM:
  1. **Standard Supply Service (SSS):** Claimed pro rata if deliverable and meets quality criteria.
  2. **Voluntary Procurement:** Can be applied to any load not already met by SSS; or optionally used instead of claiming SSS.
  3. **Residual Mix:** Used only for load not covered by either of the above.
- Existing residual mix definitions may conflict with TWG recommendations by continuing to include *publicly shared generation* that should now be treated as claimed (e.g., via SSS).
- Residual mix data has historically been limited, especially in regions without robust tracking systems. Where unavailable, companies often fall back on grid-average emission factors, which typically include claimed CFE and result in double counting.

Proposals for updating Residual Mix accounting in Scope 2

- **Option 1: Updated Residual Mix Factor (RMF)** *{Proposal 2}*
  Maintain the current structure but **require removal** of SSS and voluntary claims from residual mix calculations.
  - Fossil-only grid average may be used when RMF is unavailable.
  - Preserves the structure of the current approach with improvements to prevent double claims.

- **Option 2: Fossil-Only RMF** *{Proposal 3}*
  Replace the residual mix with a **fossil-only emission factor**, assuming virtually all CFE is allocated through SSS or voluntary procurement.
  - Used as a default for any unclaimed electricity, simplifying how RMFs are determined.
  - If unavailable, fallback to grid-average fossil factors or a standard default fossil value (e.g., coal plant EF).

- **Option 3: Residual Mix Hierarchy** *{Proposal 4}*
  Define a hierarchy of residual mix types to reflect different levels of data availability and regulatory structure.
  - **Type A RMF**: Includes only unclaimed or unsold generation attributes and excludes all transacted or claimed attributes. Reflects a "pure" residual mix for regions with strong tracking systems.
  - **Type B RMF**: Builds on Type A by adding compliance generation (e.g., RPS/CES). Used in jurisdictions with mandatory clean energy obligations when supplier-specific data is not available.
  - If neither Type A nor B is available, fallback to unadjusted grid-average factors used in the location-based method.

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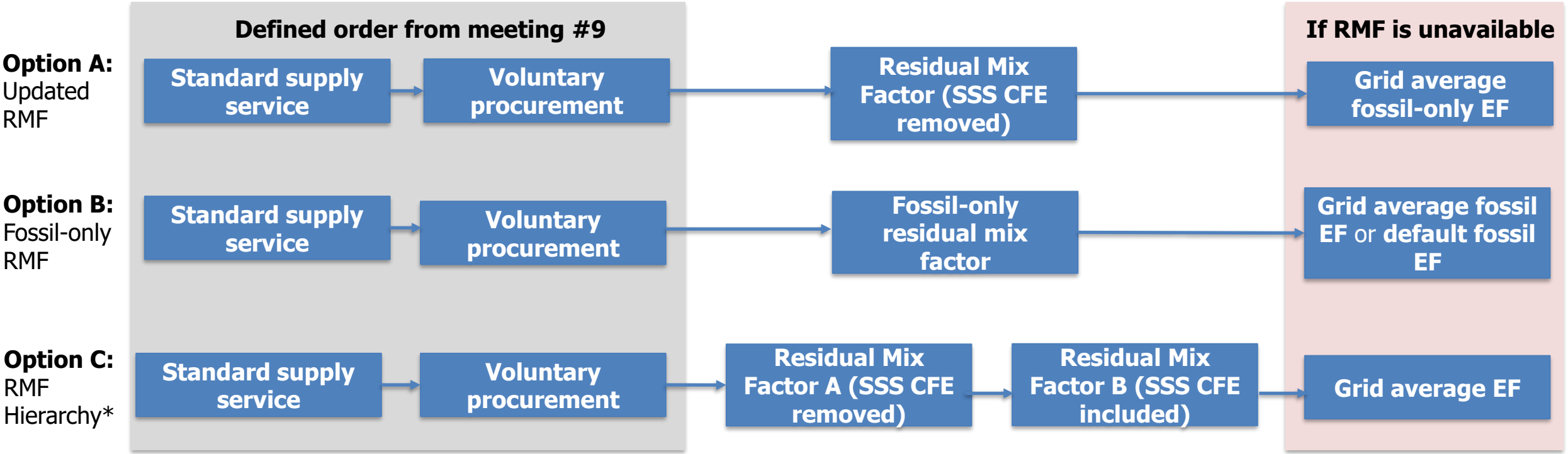
What emission factor should be required for activity data not matched with SSS or voluntary procurement?



Note: Option C was later clarified during the meeting to be incorrectly reflected in this diagram.

Mapping considerations to Decision Making Criteria

	Option A - Updated RMF Retain RMF, remove SSS/voluntary from mix; fossil-only if RMF unavailable	Option B - Fossil-Only RMF Replace RMF with fossil-only; grid/default fossil EF if RMF unavailable	Option C - RMF Hierarchy Use Type A, then Type B; grid avg if RMF unavailable	Option D - Status Quo Current RMF rules with grid-avg if RMF unavailable
Integrity	Reduces double counting by aligning with revised MBM order of claims. Improves transparency and completeness of residual mix.	Seeks to removes double counting by treating all unclaimed electricity as fossil-based. Simplifies logic of allocation, but may *over*simplify.	Supports accuracy and transparency across market contexts, but Type B RMF may not fully align with the revised MBM claim order Risk of double counting CFE remains if grid-average EFs are used as a fallback	Inconsistent with TWG recommended SSS allocation and claims order. Allows double counting of CFE via grid-average EF.
Impact	Supports credible reporting and enables informed mitigation actions *where RMFs exist*. Generally compatible with disclosure programs.	Easy to interpret for disclosure and target-setting use. Generally compatible with disclosure programs.	Supports varied market needs Provides useful granularity for policy-linked or compliance disclosures.	Can support credible reporting *where RMFs are available and properly calculated*. Generally compatible with disclosure programs.
Feasibility	Moderately feasible if guidance is provided on how to remove SSS/voluntary claims. Allowance for fossil-only EF if RMF is unavailable extends applicability.	High feasibility where fossil-only or proxy data are available. Good access globally for grid/default fossil EF if fossil-only RMF is unavailable.	RMF Type A moderately feasible if guidance is provided on how to remove SSS/voluntary claims. Feasibility of RMF Type B depends on available tracking and compliance data to prevent double counting of SSS CFE.	Highly feasible due to current usage. Lacks safeguards in low-data or non-tracked systems.

Polling Questions: Residual Mix Updates

5. Should residual mix factors used in MBM accounting explicitly exclude any carbon-free electricity (CFE) that is allocated under Standard Supply Service (SSS) or claimed through voluntary procurement? (Select one)

a. Yes – Residual mix should include only electricity not allocated through SSS or claimed through voluntary procurement.
b. No – Residual mix may still include publicly shared or compliance-based generation not directly claimed through certificates.
c. Needs more information.

6. Which overall structure should be adopted for residual mix emission factors in the updated Scope 2 Guidance?(Select one)

a. Single updated RMF definition – Maintain current residual mix approach but clearly remove SSS and voluntary claims.
b. Fossil-only RMF – Use a fossil-only emission factor for any unmatched electricity, assuming all CFE is allocated elsewhere.
c. RMF hierarchy – Define and apply a tiered structure (e.g., Type A, Type B, grid average) based on data and regulatory context.
d. Other (please specify in chat).
e. Needs more information.

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Polling Questions: Residual Mix Updates

7. If a residual mix (updated or fossil-only) is not available in a given region, which fallback approach should be used? (Select all that apply)

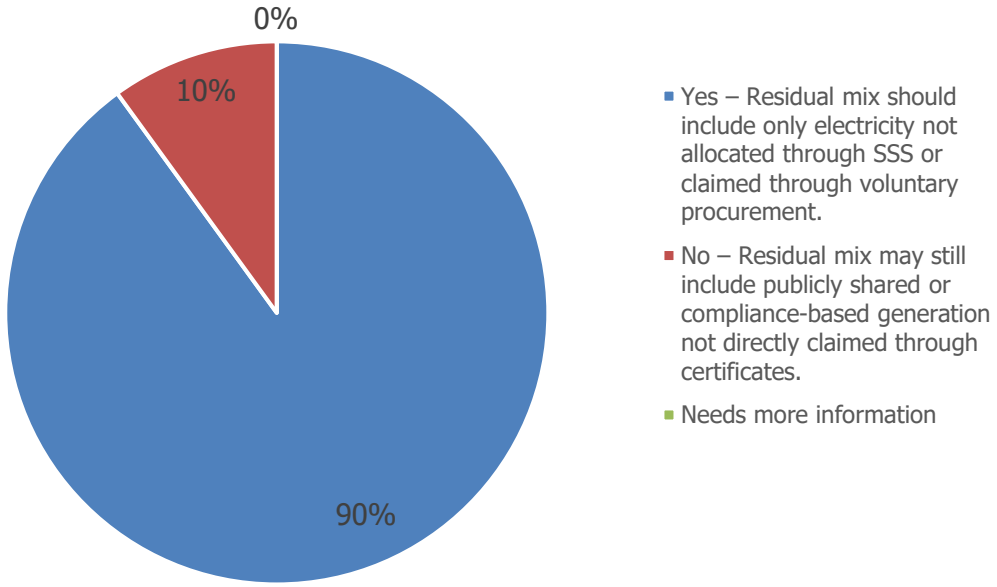
a. Fossil-only grid-average EF (e.g., eGRID non-baseload, Defra fossil average, IEA fossil).
b. Default fossil EF from IPCC or government sources (e.g., coal plant EF).
c. Location-based grid-average EF.
d. Leave to reporter discretion with required disclosure.
e. Needs more information.

8. Should residual mix factors (RMFs) be required to align with the Scope 2 Quality Criteria (e.g., deliverability, time matching)? (Select one)

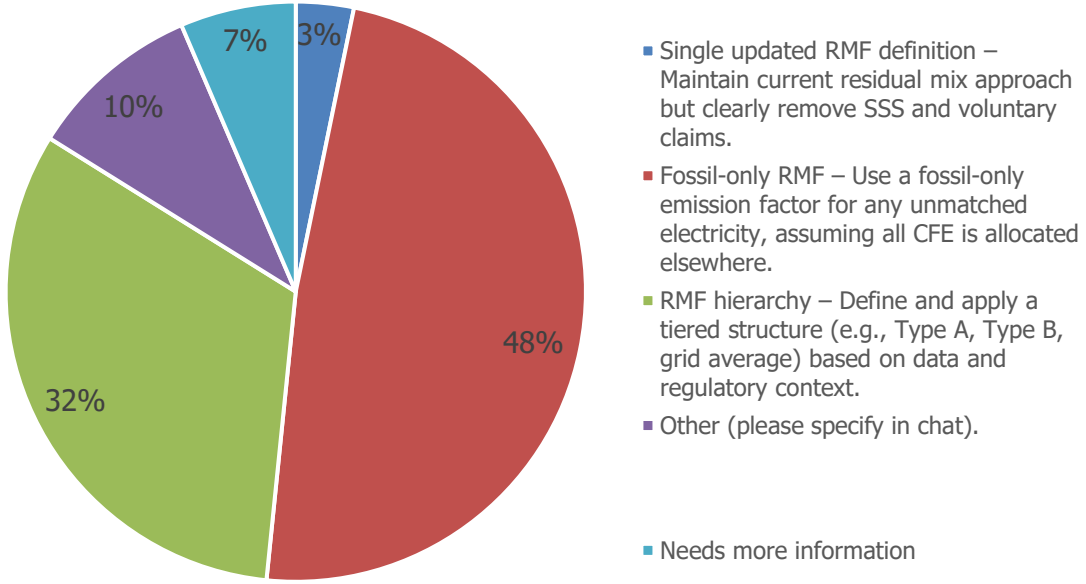
a. Yes – RMFs should meet the same Quality Criteria as MBM certificate-based claims, including considerations like deliverability and time matching.
b. No – RMFs may be calculated based on available data, even if they do not fully align with MBM Quality Criteria.
c. Needs more information.

Poll responses, questions 5 & 6

Question 5: Should residual mix factors used in MBM accounting explicitly exclude any carbon-free electricity that is allocated under standard supply service or claimed through voluntary procurement?

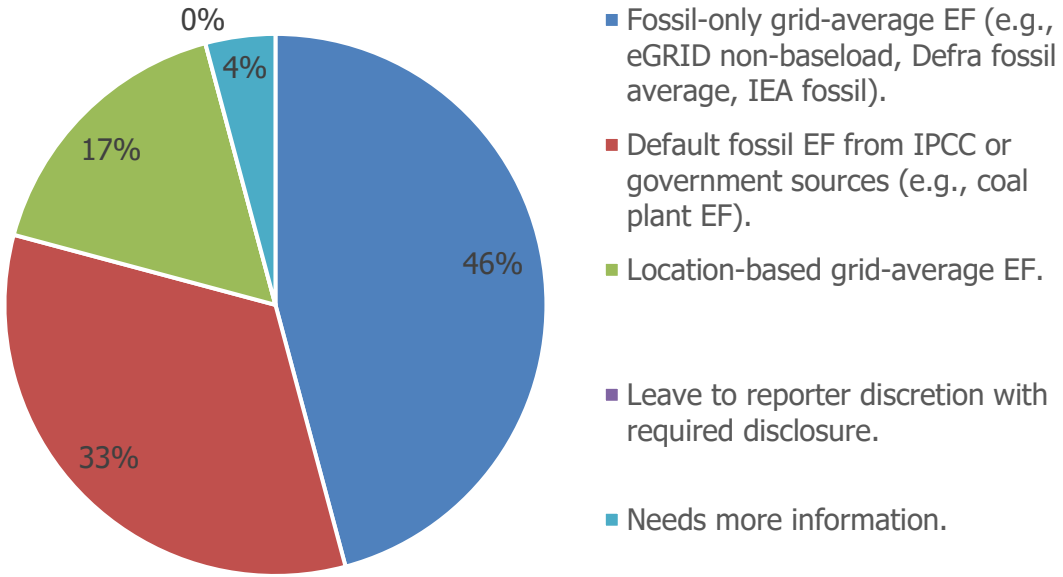


Question 6: Which overall structure should be adopted for residual mix emission factors in the updated Scope 2 Guidance?

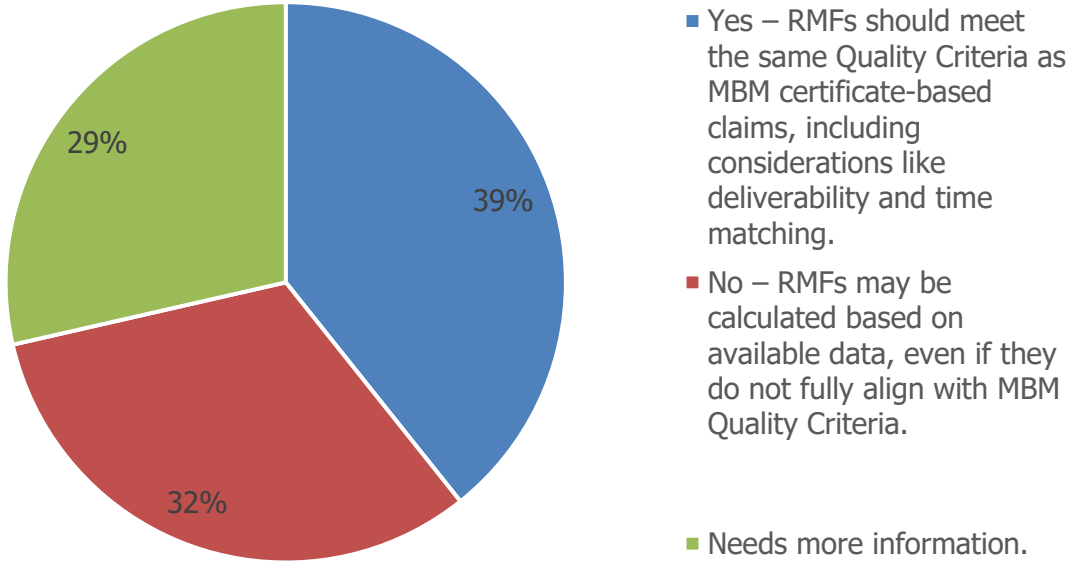


Poll responses, questions 7 & 8

Question 7: If a residual mix (updated or fossil-only) is not available in a given region, which fallback approach should be used?



Question 8: Should residual mix factors (RMFs) be required to align with the Scope 2 Quality Criteria (e.g., deliverability, time matching)?



Next steps

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Next steps

- **Next meeting: April 16th**, 17:00 EDT/23:00 CEST/ 05:00 CST

  Key issues remaining to be discussed:
  - Issue 5: Dual reporting, goal setting and tracking, and additional metrics
  - Issue 6: Refinement of purposes, uses, and claims; clarifications on reporting impacts

- **Location-based revision proposal**:
  - Requested from proposal author group by **March 31st**
  - TWG review period for final draft of location-based recommendation will extend through **May 2nd**.

- **Market-based revision proposals:**
  - Updates or new revisions are requested by **April 11th (extended from April 4th)**
  - Approach for consolidating revisions consistent with TWG poll recommendations

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Supplementary slides

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1) Time Matching: TWG Recommendations

- **Vintage Criteria Update**: 82% of the TWG support stricter time matching requirements.
- **Need for a Temporal Hierarchy**: 94% indicated that a hierarchy is necessary to define and apply the time matching requirement.
- **Requirement Stringency**: 76% of respondents support a "shall" requirement for using the most precise available time interval for both activity data and contractual instruments. 15% favored a "should" recommendation, and 6% supported a flexible "may" approach.
- **Applicability Across Reporting Organizations**: The TWG was split on whether hierarchy requirements should allow differentiated requirements for time matching based on factors like geography, organization size, or consumption volume (55%) or apply universally to all organizations (39%).

2) Deliverability: TWG Recommendations

- **Eligible Sourcing Boundaries**: 78% of respondents supported updating Scope 2 Quality Criteria to require sourcing from generation that is "deliverable", while 19% preferred to maintain the current policy-defined market boundary requirements.

- **Applicability of Requirements Across Reporting Organizations**: 66% favored a combined approach using both geographic definitions and specific conditions, while 19% preferred geographic definitions alone, and 9% supported a conditions-based approach.

- **Defining Deliverability**: 69% support defining deliverability based on evidence power can be physical delivered between generation and load, while 13% favor further requiring proof of no power transmission constraints in all hours, while 12% supported maintaining the existing market boundary definition regardless of deliverability.

3) Pro Rata Allocation of Utility Supply: TWG Recommendations

- **SSS Eligibility:** 86% agreed that reporters should be able to claim a pro rata share of SSS carbon-free electricity (CFE) deliverable to their facilities if it meets Scope 2 Quality Criteria.

- **Unclaimed SSS:** 100% agreed that unclaimed shares should not be eligible for voluntary claims by others.

- **Voluntary Procurement:** 85% supported requiring voluntary procurement only for the unmet portion of load after SSS allocation.

4) Voluntary Procurement: TWG Recommendations

- **Voluntary Procurement Eligibility**: 84% of TWG members supported limiting restrictions to the recommended updates—requiring time matching, deliverability, and fair allocation of SSS—without adding further constraints on voluntary procurement under the market-based method.

- **Causality Tests:** 78% of respondents supported maintaining the current approach, which does not require voluntary procurement to demonstrate causality, while 19% favored introducing a causality requirement.

Proposal 2: hierarchy for use of estimated profiles of activity data in the MBM

Proposal 2: Demand-side temporal granularity data quality criteria (Table X.X)

Data Granularity	Demand Data Derived from	Applicable to	Precision
Hourly	**Meter data** Primary hourly meter data from smart meters	All electricity consumption	Higher
	Facility-specific load profile Total facility consumption scaled according to an estimated facility-specific load profile		
	Regional publicly available load profile Total regional consumption scaled according to a general or customer class-specific regional load profile		
	Time-of-use average Total consumption for time-of-use billing periods (e.g., on-/off-peak hours) scaled to the proportion of electricity consumed during each time-of-use period, then averaging by the number of hours within that time-of-use period		
	Flat average Total consumption divided by the number of hours in the corresponding period for which data is available (e.g., if a company has daily consumption data, they would divide that total by 24 hours for each day of the year)		
Monthly	**Monthly bill or meter data**	Electricity consumption up to 5 GWh/yr per region	Lower
	Flat average Total annual consumption divided by 12 months		
Annual	**Annual bill or meter data**		

Proposal 3: hierarchy for use of estimated profiles of activity data in the MBM

Proposal 3: Consumption Data Hierarchy (Table X)

Consumption data	**Indicative examples**
Actual Hourly (or Sub-Hourly) Metered Consumption	Metered electricity consumption or supplier bills specifying consumption in MWh or kWh units provided by supplier or reporting entity
Estimated Hourly Consumption Based on Supplier Load Profiles	Based on actual company monthly meter reads or supplier bills and load profiles used by supplier to determine hourly retail supply obligations provided by supplier
Estimated Hourly Consumption Based on Standard Load Profiles	Based on actual company metered monthly or annual data and standardized load profiles for customer type and location (e.g., NREL End-Use Load Profiles for the U.S. Building Stock; DOE Load Profiles data, etc.)
Estimated Hourly Consumption Based on Flat Load Profile	Applied to actual monthly (preferable) or annual load to enable hourly clean energy matching in market-based method when granular certificates (GCs) or estimated hourly EACs are available
Actual Monthly Consumption	From reporting entity supplier bills (or estimated if utility bills not available)
Actual Annual Consumption	From reporting entity supplier bills (or estimated if utility bills not available)

GREENHOUSE GAS PROTOCOL

Use of residual mix factor in the current guidance

"A residual mix in the market-based method should represent all unclaimed energy emissions, which is formulated by removing contractual claims data from energy production data."

A residual mix "creates a complete data set under the market-based method"

"To avoid double counting, companies making claims based on contracts (where no certificate system exists) should report the quantity of MWh and the associated emissions acquired through contracts to the entity that calculates the residual mix, and request that their purchase be excluded from the residual mix."

"If a residual mix is not available. Other unadjusted grid average emission factors such as those used in the location-based method may be used. Companies shall document in the inventory that a residual mix was not available."

"If a residual mix is not currently available, companies shall disclose that an adjusted emissions factor is not available or has not been estimated to account for voluntary purchases and this may result in double counting between electricity consumers."

Emission factors	Indicative examples	Precision
Energy attribute certificates or equivalent instruments (unbundled, bundled with electricity, conveyed in a contract for electricity, or delivered by a utility)	• Renewable Energy Certificates (U.S., Canada, Australia and others) • Generator Declarations (U.K.) for fuel mix disclosure • Guarantees of Origin (EU) • Electricity contracts (e.g. PPAs) that also convey RECs or GOs • Any other certificate instruments meeting the Scope 2 Quality Criteria	Higher
Contracts for electricity, such as power purchase agreements (PPAs)[a] and contracts from specified sources, where electricity attribute certificates do not exist or are not required for a usage claim	• In the U.S., contracts for electricity from specified nonrenewable sources like coal in regions other than NEPOOL and PJM • Contracts that convey attributes to the entity consuming the power where certificates do not exist • Contracts for power that are silent on attributes, but where attributes are not otherwise tracked or claimed	
Supplier/Utility emission rates, such as standard product offer or a different product (e.g. a renewable energy product or tariff), and that are disclosed (preferably publicly) according to best available information	• Emission rate allocated and disclosed to retail electricity users, representing the entire delivered energy product (not only the supplier's owned assets) • Green energy tariffs • Voluntary renewable electricity program or product	
Residual mix (subnational or national) that uses energy production data and factors out voluntary purchases	• Calculated by EU country under RE-DISS project [b,c]	
Other grid-average emission factors (subnational or national) – see location-based data	• eGRID total output emission rates (U.S.).[d] In many regions this approximates a consumption-boundary, as eGRID regions are drawn to minimize imports/exports • Defra annual grid average emission factor (UK) • IEA national electricity emission factors[e]	Lower

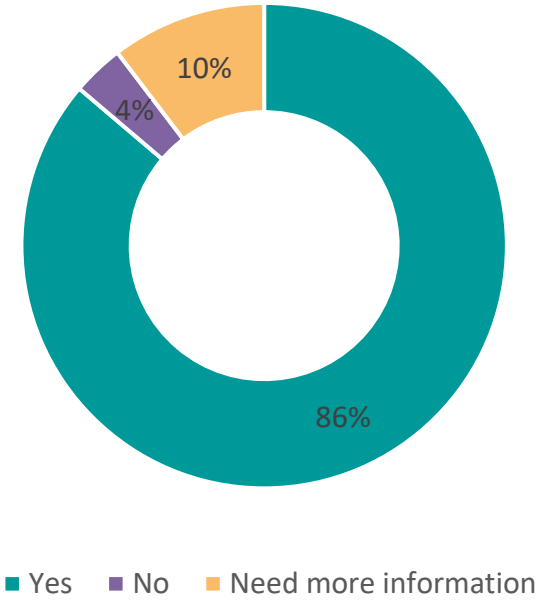
Table 6.3 Market-based scope 2 data hierarchy examples, Scope 2 Guidance, p.48)

WORLD RESOURCES INSTITUTE

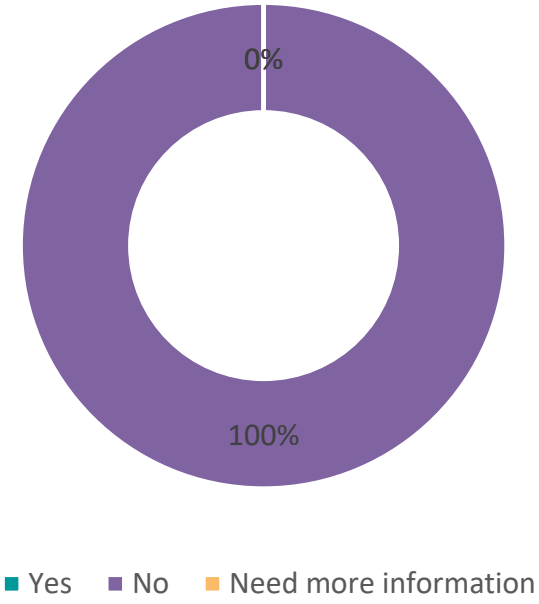
World Business Council for Sustainable Development

Clear support for exclusive SSS claims by reporting entities – not eligible for voluntary claims of others

1. In the MBM, should reporting entities have the right to claim the pro rata share of Standard Supply Service CFE deliverable to their facilities (while following the Scope 2 Quality Criteria)?



2. If a reporter doesn't opt-in to claim their pro rata Standard Supply Service CFE, should it be eligible for voluntary claims in the market-based inventories of other companies?



Addendum

GREENHOUSE GAS PROTOCOL

Phase 1 Scope of Work

1) Clarify objectives and consider any changes to the accounting and reporting requirements of the Scope 2 Standard

a) Clarify the objectives and purpose of the scope 2 location-based and market-based methods

b) Clarify the objectives and purpose of dual reporting of the location-based and market-based methods in scope 2

c) Clarify the relationship between scope 2 inventory accounting and electricity sector project accounting methodologies such as in the GHG Protocol Guidelines for Quantifying GHG Reductions from Grid-Connected Electricity Projects

d) Explore whether alternative or additional scope 2-related metrics should be included in a GHG emissions report

2) Location-based method technical improvements

a) Determine whether to require or recommend more accurate data than currently required, such as hourly data or consumption-based grid average emissions data

b) Clarify how to account for electricity generated and consumed from on-site projects within the reporting company's organizational boundary using the location-based method

c) As needed, evaluate technology-specific implications of location-based method technical improvements

3) Market-based method technical improvements

a) Review the Scope 2 Quality Criteria to consider revisions to the market boundary and vintage criteria requirements

b) Review the Scope 2 Quality Criteria to consider new requirements related to impact, additionality, or resource newness

c) Clarify how to account for carbon-free electricity and renewable power supplied under utility programs or regulatory compliance schemes in the market-based method and what information must be included in a supplier- or utility-specific emission factor

d) Evaluate if updates to the emission factor data hierarchy and order of operations in applying emission factors, energy attribute certificates, etc. are appropriate

e) As needed, evaluate technology-specific implications related to market-based method technical improvements

4) Role of project-based accounting methodology relative to scope 2 accounting

a) Clarify the relationship between scope 2 inventory accounting and electricity sector project accounting methodologies such as the GHG Protocol Guidelines for Quantifying GHG Reductions from Grid-Connected Electricity Projects

b) Determine how and to what extent the quantification and reporting of GHG emission impacts of grid-connected electricity projects using the project method is required by the standard

c) Clarify potential interactions between carbon credits sourced from carbon-free generation facilities and EACs from the same resource

5) Guidance for regional variation in energy markets

a) Consider the development of guidance and additional examples of scope 2 calculations for the location-based and market-based methods for various energy markets globally

b) Create additional guidance for accounting for the purchase and sale of energy associated with "off-grid" energy generating installations, including microgrids

6) Interaction with policies and programs

a) Clarify what each scope 2 accounting method/metric represents and provide directions and recommendations for their use by mandatory disclosure rules, target-setting programs, and for individual reporters