BUSINESS ENVIRONMENT COUNCIL 商界環保協會

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Submission on the GHG Protocol Scope 2 Guidance Revision
Views from Business Environment Council Limited
商界環保協會有限公司

Over the last 34 years, Business Environment Council Limited 商界環保協會有限公司 ("BEC') has played a leading role in advocating the business case for environmental excellence, given the importance of sustainable development to Hong Kong. Our members are committed to actively engage with international initiatives such as the Greenhouse Gas Protocol ("GHGP') on issues related to environmental protection, carbon accounting, and sustainability.

Views expressed in this submission are those of BEC, in line with BEC's Mission and Vision as well as policy position on relevant issues, but may not necessarily be the same as the views of each individual member. BEC is an independent charitable membership organisation comprising over 300 member companies from Hong Kong's major holding companies to small and medium-sized enterprises ("SMEs").

Background

BEC commends the GHG Protocol for its leadership in establishing the global standard for corporate carbon accounting and welcomes the opportunity to contribute to the revision of the Scope 2 Guidance. We recognise the necessity of updating the 2015 Guidance to reflect the evolving energy landscape, ensuring that corporate reporting remains accurate, transparent, and capable of driving meaningful decarbonisation. We acknowledge the intent behind the proposed updates—specifically regarding the location-based and market-based methods, new emission factor hierarchies, and the introduction of granularity requirements such as hourly matching—to enhance the environmental integrity of energy attribute claims.

In preparing this submission, BEC has actively consulted with our members and the broader business community to ensure the unique market conditions of Hong Kong and nearby region are reflected. This included a dedicated consultation session on 4 December 2025 with Hong Kong's two power utilities and over 20 corporations across sectors including real estate, retail, logistics, and investment. Furthermore, BEC facilitated an exclusive dialogue on 12 December 2025 with the World Resources Institute ("WRI") China to deepen the understanding of the proposed changes among local stakeholders.

While we recognise the potential of these updates to standardise reporting and accelerate grid decarbonisation, our engagement has highlighted practical challenges in Hong Kong and regional context. Most businesses in our network have material Scope 2 emissions, and there

are concerns that certain proposed criteria regarding deliverability and hourly matching may not be immediately feasible given current local data infrastructure and market maturity. We understand this is the first consultation on the revised guidance. We hope concepts such as Standard Supply Service ("SSS"), the fallback fossil fuel-based emission factor, and the definition of market boundaries in complex regions like China can be further explained and clarified, with specific examples provided to aid implementation. As our analysis is based on the experience of a wide range of companies operating in a vertically integrated market, BEC believes it is the best approach to also provide our response as a written submission reflecting the aggregate feedback of the business community.

Our detailed feedback in this submission aims to ensure that the revised Scope 2 Guidance is not only ambitious but also practically implementable across diverse regional contexts, particularly in Asia. Our objective is to help ensure that the final requirements accommodate markets at different stages of deregulation and data availability, thereby fostering broader participation rather than creating barriers to compliance. We look forward to a constructive evolution of the standard that supports Hong Kong businesses in their transition to a net-zero economy.

Section 3: Proposed revisions to definitions and purpose of the location-based method and market-based method

Regarding the definition of Scope 2 (Attributional role, physically connected)

18. Please provide any feedback on the proposal to refine the definition of scope 2, to emphasize its role within an attributional value chain GHG inventory and clarify that scope 2 must only include emissions from electricity generation processes that are physically connected to the reporter's value chain, excluding any emissions from unrelated sources? *Please note that feedback on specific changes to the location- and market-based method can be provided in sections 4 and 5.*

We raise caution regarding the phrase "physically connected." While we agree that Scope 2 represents emissions from electricity consumed, the definition needs to acknowledge that electricity grids are complex and interconnected systems. It should be noted that currently the phrase "physically connected" has confliction with the 2015 Guidance, which explicitly states that markets can be determined by political or regulatory boundaries rather than just physical grid interconnections.

The definition should not be interpreted so strictly that it undermines the validity of market-based instruments (like virtual PPAs or unbundled EACs) that operate within the same market boundary but may not have a direct physical line to the reporter.

Our feedback aims to ensure the "physically connected" clarification does not inadvertently invalidate legitimate market-based instruments within appropriate market boundaries.

Regarding the LBM definition (Physically delivered at times/locations, including imports)

19. Please provide any feedback on the proposed clarification to the LBM definition to reflect scope 2 emissions from generation physically delivered at the times and locations of consumption, with imports included in LBM emission factor calculations where applicable? ***Please note that feedback on specific changes to the location-based method can be provided in section 4.***

We support the aspiration for the Location-Based Method ("LBM") to reflect physically delivered emissions including imports. The proposed emission factor hierarchy appropriately allows for the use of less granular data where more precise data is not accessible.

Regarding the MBM definition (Contractual basis, specifying temporal correlation and deliverability)

20. Please provide any feedback on the proposal to clarify the MBM definition to retain its existing basis, quantifying Scope 2 from contractually purchased electricity via contractual instruments, while specifying temporal correlation and deliverability when matching instruments to consumption? ***Please note that feedback on specific changes to the market-based method can be provided in section 5.***

We support retaining the contractual basis of the Market-Based Method ("MBM"). Regarding the addition of "temporal correlation" to the definition, it should encompass the full hierarchy of matching options (including annual or monthly where applicable) to ensure that companies unable to match hourly are not deemed non-compliant by definition. As stated in response to Question 169, organisations exercising valid exemptions (due to data or cost constraints) should still be considered in conformance. The definition should characterise temporal correlation as a quality criterion or a tiered goal rather than a binary requirement for using the MBM. Additionally, local regulatory requirements must be fully considered, particularly for a regulated, vertically integrated market like Hong Kong, where the MBM-related market instrument—namely the Renewable Energy Certificate (REC)—is stringently regulated by the Regulator, including its vintage, price, and eligibility. Therefore, application of MBM-related market instruments that comply with local regulatory requirements should be deemed to conform with the GHG Protocol.

Regarding the proposed purposes of the Location-Based Method

21. Please provide any feedback on the proposed purposes of the location-based method. Please note that feedback on specific changes to the location-based method can be provided in section 4.

We agree with the proposed purposes. The LBM serves as the necessary baseline representing the physical reality of the grid on which the company operates. Its primary purpose should be to provide a transparent assessment of the GHG intensity of the local grid to highlight the systemic decarbonisation needs of the region.

As a baseline methodology, LBM should prioritise accessibility and comparability over granularity. It serves as a vital counterpoint to the Market-Based Method but should not burden reporters with excessive granular data collection that belongs more appropriately in advanced MBM accounting.

Regarding the proposed purposes of the Market-Based Method

22. Please provide any feedback on the proposed purposes of the market-based method. Please note that feedback on specific changes to the market-based method can be provided in section 5.

We agree that the purpose of the MBM is to reflect consumer choice and contractual procurement. The MBM's primary goal is to allow organisations to signal demand for low-carbon energy and accelerate the energy transition through their purchasing power. To fulfill this purpose, the MBM must remain accessible. If the method becomes too restrictive (e.g., by requiring hourly matching without exemptions), it will fail in its purpose by excluding the vast majority of corporate buyers who cannot yet meet those technical demands. The purpose should be to incentivise market participation, not restrict it to only the most sophisticated energy buyers.

Section 4: Location-based method

Regarding the update to the location-based emission factor hierarchy to identify the most precise location-based emission factor accessible according to spatial boundaries, temporal granularity, and emission factor type (consumption or production)

25. Please provide comments regarding your reasons for support.

Prioritising precision is scientifically sound. Using a hierarchy is reasonable in principle since it provides guidance on how companies can report their GHG emissions most accurately based on existing data. This is especially true for companies without hourly data as they are not readily accessible.

As noted by some of our members, "if it is not available, it is not available," meaning the hierarchy allows companies to use the best available data without being penalised for infrastructure gaps. However, the practicality of this hierarchy is heavily dependent on whether the regulator requires electricity suppliers providing updated emission factors.

27. Please provide comments regarding your reasons for why you are not supporting (if any).

Hourly matching should not yet be a requirement since it is currently not accessible and not cost-effective for many companies to obtain. Hourly matching may not be necessary for accounting and accuracy as Hong Kong's current sources of energy do not have significant hourly patterns of fluctuation. Obtaining smart metering data services can cost additional

installation and annual subscription costs, in addition to the administrative effort required to negotiate deals with providers. Furthermore, there can also be concerns over data access and business privacy as hourly data can reflect business operations.

Regarding the new definition of accessible: publicly available, free to use, and from a credible source.

37. Please provide comments regarding your reasons for support.

BEC supports the proposed definition of "accessible" as publicly available and free to use. Our support is based on the following key areas:

- **Feasibility, Cost, and Data Equity**: Defining "accessible" as free of charge supports feasibility and lower-cost reporting. This is essential for creating data equity, particularly for Small and Medium-sized Enterprises ("SMEs") and organisations in underserved regions. These entities often lack the resources to subscribe to expensive proprietary energy data services. By removing significant financial barriers, the Protocol ensures that robust Scope 2 accounting is not limited to large corporations with substantial sustainability budgets.
- **Transparency and Verifiability**: This definition supports transparency and public verifiability of emission factors. When underlying data is publicly available, external stakeholders—including investors, auditors, and the general public—can independently verify the sources used in corporate inventories. This significantly enhances the credibility of reported emissions and builds trust in the reporting framework.
- **Clarification and Local Context**: The proposal clarifies reporting requirements by removing ambiguity regarding which data sources are permissible. It validates the current standard practice in many jurisdictions, including Hong Kong, where reporters rely on emission factors published freely in utility sustainability reports or government websites.
- **Incentivising Open Data**: Finally, requiring that data must be "free to use" to be compliant encourages the open publication of emission factors. This will incentivise grid operators, utilities, and regulators to release this data openly rather than keeping it behind paywalls, ultimately benefiting the wider global ecosystem of carbon accounting.
- **Credibility:** We note that "public and free" is not enough; the standard must define what constitutes a **"credible source"** (e.g., regulatory filings, utility sustainability reports) in developing markets where generators do not publish plant-level data, to prevent the use of unverified third-party estimations.
- **Market Boundary in Hong Kong Context:** Hong Kong market is a regulated / non-liberalised market with only two power system operators servicing different areas (thus with different SSS and residual mix emission factors. Members would like to understand in such context if they are considered as separate markets, or if Hong Kong is considered as a whole market in which context the Hong Kong Government may need fill in the gap to provide a consolidated emission factor for users.

Regarding the update to the requirement to use the most precise location-based emission factor accessible for which activity data is also available

47. Please provide your concerns or reasons for why you are not supporting.

Select all that apply:

- ☑ **Concern about negative impact on comparability, relevance and/or usefulness of LBM inventories**
- ☑ **Concern that administrative, data management, and audit challenges posed by this approach would place an undue burden and costs on reporters**
- ☐ Concern that the most precise spatial boundary in the LBM emission factor hierarchy, "local boundary", is too narrow to require even when accessible
- ☐ Accessible factors may be less accurate than non-accessible options and primary users of emission reporting data may expect the most representative factors
- ☑ **Material differences to inventory accuracy are too small to justify cost**
- ☐ Concern about the update cadence or representativeness of datasets (hourly/monthly)
- ☑ **Other (please provide):**

48. Please provide any additional comments regarding your concerns or reasons why you are not supporting (if any).

We support the hierarchy and acknowledge that granular temporal matching theoretically improves the accuracy and scientific integrity of LBM results and supports phased improvement as data availability expands. On the other hand, some members raise concerns on the administrative, data management, and audit challenges which would place an undue burden and costs on reporters, particularly in regions like developing Asia.

- **Infrastructure and Cost Barriers**
  The administrative and financial burdens of this requirement may outweigh the environmental benefits. In many Asian markets, the lack of foundational infrastructure (such as limited smart-meter penetration and grid digitalisation) means data is not readily available. While smart meters have been rolled out extensively in Hong Kong, the data infrastructure to provide API-based, granular access to customers is not yet standard. Compliance would force corporate consumers to invest heavily in additional building management systems or rely on estimations, increasing both costs and the risk of accounting errors.
- **Materiality and Usefulness**
  We are **concerned about potential negative impact on the comparability, relevance, and usefulness of LBM inventories**. In regions with limited investment in battery storage and flexible generation, demand signals from hourly matching do not translate into tangible grid decarbonisation. Instead, companies may face premium costs for hourly-matched energy or pay fees to certification platforms. This risks becoming a fee-generating mechanism rather than a solution delivering environmental value. Furthermore, in markets with relatively stable grid emissions, the **material**

differences to inventory accuracy are too small to justify the cost of such granular reporting.

- **Decarbonisation and Transition Planning**
  Premature implementation of hourly matching risks distorting the perceived impact of already-planned decarbonisation measures. For example, electrification initiatives (such as EV charging infrastructure) that rely on daytime usage or off-peak recharging could face artificially inflated emissions if high-emission-factor periods dominate the calculation. Similarly, energy efficiency improvements installed on equipment operating during specific hours could appear less effective. These distortions could undermine confidence in existing transition plans and deter further investment in electrification.
- **Privacy and Appropriateness of Granularity**
  Revealing hourly consumption data raises business privacy concerns as it reflects sensitive operational patterns. Consequently, a more flexible approach is required. For markets like Hong Kong, longer periods such as monthly or quarterly matching are sufficient to reflect grid variations without creating unnecessary reporting burdens. The focus should remain on promoting tangible infrastructure investments, such as battery storage, rather than imposing an accounting framework misaligned with regional realities.

Questions 52-56. External programs that use GHG Protocol generally support improving the accuracy and comparability of LBM results while balancing feasibility considerations.

52. Considering investor and assurance needs, how do the proposed location-based method revisions change the extent to which information is decision-useful to users relative to incremental cost and complexity for preparers?

Select only one:

- ☐ No meaningful improvement (unlikely to change decisions/interpretations)
- ☑ **Minor improvement (noticeable but unlikely to change decisions)**
- ☐ Moderate improvement (could change some decisions/assessments)
- ☐ Substantial improvement (likely to change decisions benchmarks)
- ☐ Not sure / no basis to assess

53. Please provide additional context for your answer to question 52.

The proposed revisions offer only a minor improvement in decision-usefulness while imposing a disproportionate administrative and financial burden on preparers. 3 Key factors are based on the insights from the consultation meeting

Investor Materiality: Stakeholder feedback indicates that investors of reporting companies prioritise overall decarbonisation trajectories and the achievement of science-based targets over high-frequency data points. For general conglomerates and property developers, hourly granularity is not currently a material factor for investment decisions, unlike in specific energy-intensive sectors such as data centres.

Regional Grid Characteristics: For a regulated, vertically integrated electricity marketlike Hong Kong, the energy mix relies heavily on stable baseload sources (e.g., gas and nuclear) rather than intermittent renewables. Consequently, grid emission factors exhibit minimal hourly fluctuation. Increasing temporal resolution in such contexts adds complexity without significantly enhancing the accuracy or scientific integrity of the inventory.

Cost-Benefit Disparity: Widespread access to hourly data is currently not a standard requirement. Requesting this level of precision would necessitate substantial change in operational practices and increase in expenditure for the data management system. This complexity does not yield commensurate decision-useful information for the majority of stakeholders, resulting in a low return on investment for reporting entities.

Questions 57-68. The following questions refer to the availability of hourly data for LBM reporting.

57. At the Operational Grid Boundary level (of the proposed location-based emissions factor hierarchy), what share of your load has hourly emission factors accessible.

58. Please provide additional context for your answer to question 57.

Currently there is no hourly emission factor available in most Asian regions' grids infrastructure. While some pilots for hourly emission factors exist in mainland China, the majority of the region, including Hong Kong, relies on annual average emission factors provided by utilities. The infrastructure for widespread hourly data provision is not yet mature.

61. When actual hourly activity data are unavailable, and solely to enable use of more precise LBM emission factors, the proposed revisions allow a reporter to use load profiles to approximate hourly data from monthly or annual load data. How would the use of load profiles affect the comparability, relevance, and usefulness of LBM inventories relative to your current practice? Please describe potential advantages, limitations, and any conditions under which impacts may differ.

While load profiles are feasible, there needs to be a specification on how they should be calculated. Some methods involve simply flat averaging data, which can be inaccurate and unproductive. While site-specific methods would be the most accurate way to capture operational differences between each facility, they are difficult to generate. Relying on generic profiles adds administrative complexity without enhancing the scientific integrity of the inventory.

63. Please select the main drivers of cost/effort.

Select all that apply:

- ☑ **Data access/rights to granular emission factors**
- ☑ **Hourly activity data availability/metering rollout**
- ☑ **Tooling/IT integration or data pipelines**

- ☑ **Assurance/internal controls readiness**
- ☑ **Staffing/capacity/training**
- ☑ **Contracting/procurement or budget cycle constraints**
- ☑ **Third-party publication cadence (emission factors)**
- ☑ **Multi-jurisdiction complexity (many grids/regions)**
- ☑ **Policy/regulatory or commercial terms**
- ☐ Other: _____

65. Which two measures would most reduce burden in your context?

Please select at most 2 options:

- ☑ **Standardized publication of consumption-based emission factors by grid/system operators**
- ☐ Load profile hierarchy/templates to approximate hourly activity data when meters are unavailable
- ☐ Phased implementation (staged effective dates)
- ☐ API/automated access to emission factor datasets
- ☐ Example calculations and disclosure templates
- ☑ **Assurance safe-harbors for estimates**
- ☐ Other (specify)

68. Please provide additional context regarding how this timeline could be shortened and note any region or sector-specific context.

While we support the structural clarity introduced by the proposed Location-Based Method ("LBM") hierarchy, the timeline for implementation and specifically regarding granular (hourly) data requirements cannot be realistically shortened without first addressing significant regional infrastructure gaps. Acceleration is only feasible for the adoption of the hierarchy framework itself, not the granular data collection.

Regional Context (Hong Kong & Asia-Pacific): For a regulated, vertically integrated electricity market like Hong Kong, the implementation should be coordinated between regulator, utilities and reporting entities. Currently, access to hourly data is not standard. Shortening the implementation timeline would require an immediate, region-wide mandate for utility companies to provide API-based, hourly generation data to all commercial customers at no additional cost. Without this prerequisite, reporting entities cannot accelerate compliance as they would be forced to install private metering infrastructure, which is capital-intensive and time-consuming.

Sector-Specific Context (Real Estate & Conglomerates): Unlike the technology or data centre sectors, which may already possess advanced energy monitoring, the property and general conglomerate sectors face unique hurdles.

Tenant Data Access: For property developers, obtaining granular data requires navigating complex tenant privacy laws and installing sub-meters across vast portfolios.

Grid Stability: As noted previously, the Hong Kong grid relies on stable baseloads with minimal hourly fluctuation. Therefore, accelerating the timeline for hourly matching yields diminishing returns in terms of emissions accuracy for this region.
We recommend a phased approach where the LBM hierarchy is adopted first to improve transparency, while the requirement for hourly granularity remains voluntary or follows a longer timeline until grid operators universally standardise data accessibility.

Corporate Net-zero Target Context: It is important to avoid implementing such major methodological shift before the majority of companies reach their near-term science-based target years, with 2030 being a widely adopted milestone. Introducing changes prematurely requires costly retroactive recalculations and renegotiation of stakeholder commitments, diverting resources from actual emissions reductions.

Section 5: Market-based method

Regarding the changes to the market-based method, respondents need to know what is specifically meant by an "exemption to hourly matching".

70. All respondents, please select your preferred exemption threshold per deliverable market boundary.

Select only one:

- ○ 5 GWhs
- ○ 10 GWhs
- ⊙ **50 GWhs**

Note: many of the corporate members recommend a higher threshold under this first draft of consultation given concerns over new requirements on e.g. load profiles, hourly data etc. They also consider exemption consideration should be taken at site level since it is where hourly data are collected and managed at individual site level.

Regarding update to Quality Criteria 4 to require that all contractual instruments used in the market-based method be issued and redeemed for the same hour as the energy consumption to which the instrument is applied, except in certain cases of exemption.

74. Please provide concerns or reasons for why you are not supporting, if any.

Select all that apply:

- ☐ More information is necessary to understand how investments not matched on an hourly basis will be accounted for and reported via the framework under development by the Actions & Market Instrument TWG
- ☑ **Hourly matching should follow an optional "may" rather than a required "shall" approach**
- ☐ Hourly matching should follow a recommended "should" rather than a require "shall" approach
- ☐ Concern about negative impact on comparability, relevance and/or usefulness of MBM inventories

- ☑ **Concern that a phased implementation would be insufficient for development of the infrastructure necessary (e.g., registries, trading exchanges, etc.) to support hourly contractual instruments**
- ☑ **Concern that administrative, data management, and audit challenges posed by this approach would place an undue burden and costs on reporters**
- ☑ **Concern that requiring hourly matching does not create meaningful improvements to inventory accuracy**
- ☑ **Concern that a requirement for hourly contractual instruments could discourage global participation in voluntary clean energy procurement markets**
- ☐ **Other (please explain)**

75. Please provide comments regarding your concerns or reasons for why you are not supportive.

Our consultation indicates that hourly matching is considered by our members "optional" or "recommended" rather than a required "shall" approach. We acknowledge that the proposed emission factor hierarchy technically permits less granular data where hourly data is unavailable, we still have some concerns on hourly matching from the following factors:

1. **Infrastructure Gaps and Regional Disparity:** We are concerned that a phased implementation would be insufficient for the development of the necessary infrastructure (registries, trading exchanges) in many jurisdictions. Hong Kong companies often operate across diverse Asian markets (e.g., Mainland China, Southeast Asia). While some markets are mature, others lack basic EAC frameworks, let alone hourly timestamps. An indifferent global standard may ignore these gaps, effectively penalising operations in developing markets where procuring even annual RECs is a challenge.
2. **Administrative Burden vs. Environmental Value**: The administrative, data management, and audit challenges posed by this approach would place undue burden and costs on reporters. For service-oriented sectors (hospitality, retail, and tourism), energy consumption is driven by customer requirements (consistent lighting and thermal comfort) rather than flexible production schedules. Implementing complex tracking systems for these sectors creates high costs with little benefit.
3. **Lack of Accuracy Improvement**: We are concerned that hourly matching does not create meaningful improvements to inventory accuracy in our specific grid context. The local grid in Hong Kong currently does not provide public hourly data, and because the grid is intended to reshape consumption through market mechanisms rather than immediate physical supply changes, hourly matching does not effectively drive local decarbonisation.

76. Load profiles enable organizations without access to hourly activity data or hourly contractual instruments to approximate hourly data from monthly or annual data. How would the use of load profiles affect the comparability, relevance, and usefulness of MBM inventories relative to your current practice? Please describe potential advantages, limitations, and any conditions under which impacts may differ.

We believe relying on estimated load profiles may have precision issues that undermines the credibility and accuracy of the GHG inventory.

- Administrative Burden: Developing accurate, site-specific load profiles that account for operational and temporal differences between facilities adds significant data management complexity. This aligns with our broader concern regarding the undue burden and costs placed on reporters for marginal gains.
- Preferred Approach: We recommend the GHG Protocol adopt a phased approach to temporal granularity. If actual hourly data is not available, we believe that annual matching is a more practical and accurate reflection of actual procurement than estimated hourly profiles. We support exemption threshold to ensure that organisations are not forced into using theoretical load profiles simply to meet a compliance requirement that exceeds local data capabilities.

Regarding the update to scope 2 Quality Criteria 5, to require that all contractual instruments used in the market-based method be sourced from the same deliverable market boundary in which the reporting entity's electricity-consuming operations are located and to which the instrument is applied, or otherwise meet criteria deemed to demonstrate deliverability to the reporting entity's electricity-consuming operations.

86. Please provide reasons of concern or why you are not supporting, if any.

Select all that apply:

☐ Proposed deliverability requirements do not improve alignment with GHG Protocol Principles
☑ **Concern that narrower market boundaries restrict companies' abilities to invest in areas where renewable energy development could yield the greatest decarbonization impact**
☑ **Concern that narrower market boundaries could prompt a shift away from long-term agreements (i.e., PPAs) to spot purchases (unbundled certificates)**
☐ Sourcing contractual instruments within deliverable market boundaries should follow an optional "may" rather than a required "shall" approach
☐ Sourcing contractual instruments within deliverable market boundaries should follow a recommended "should" rather than a required "shall" approach
☐ Concern that the defined market boundaries do not align with mandatory or voluntary reporting requirements in your region
☑ **Support deliverability in principle, but the proposed market boundary for my region does not reflect deliverability**
☐ Market boundaries should be defined as the geographic boundaries of electricity sectors, which align with national, and under certain circumstances, multinational boundaries
☐ Exemptions to matching within deliverable market boundaries should be allowed for markets lacking sourcing options
☐ Other (please explain)

87. Please provide comments regarding your selected reasons for why you are not supporting.

We acknowledge and support the need to maintain the integrity of the market regulatory regime through the proposed deliverability requirements However, in light of the Hong Kong Government's policy direction on regional cooperation in decarbonization, it is recommended that flexibility be incorporated to better reflect the physical and regulatory realities of major markets, particularly in Greater Bay Area of China.

Current approach to subdividing China into restricted regions ignores the fundamental design of the Chinese power system. It ignores the physical reality of the Ultra-High Voltage (UHV) infrastructure. Historically, these lines were specifically built to transmit renewable energy across these administrative borders (West to East).

China is actively transitioning toward a "Unified National Power Market." Under current Chinese regulations, Green Electricity Certificates (GECs) are designed to be traded nationally, not restricted by provincial or grid-company borders. A deliverability standard that imposes artificial regional divisions creates a compliance barrier that does not exist in the local regulatory framework, severely limiting procurement options and liquidity.

More clarification of Hong Kong's market boundary is also needed. There are physical connections (UHV lines) between grids, such as the connection between the China Southern Grid and Hong Kong. Strict boundaries restrict companies from procuring renewable energy from connected regions where they have operations. In the context of the Chinese markets, there will be challenges adhering to the deliverability requirement. We require flexibility to demonstrate deliverability via physical interconnection evidence.

While we support deliverability in principle, the boundaries do not yet reflect physical realities in island nations like Indonesia and the Philippines, where grid fragmentation limits cross-island EAC access. Conversely, in interconnected regions like the Greater Bay Area, strict administrative boundaries may ignore physical transmission realities.

90. For deliverable market boundaries (outside of the United States) identified in the table *Proposed methodologies for demonstrating deliverability*: Deliverable Market Boundaries, please provide comments on whether these market boundaries:

- **Appropriately reflect the deliverability of electricity in that region**
- **Align with mandatory or voluntary reporting requirements in that region, please provide an example of the programmatic requirements and the impacts of these proposed changes on alignment**
- **Are likely to cause any region-specific feasibility challenges (provide specific examples)**
- **If you prefer a different deliverable market boundary than identified in the table *Proposed methodologies for demonstrating deliverability: Deliverable Market Boundaries*, please describe this boundary**

Please clearly identify the region you are referring to in your comments:

Region: Hong Kong / Mainland China

The proposed boundaries do not appropriately reflect the deliverability of electricity in this region. We have identified specific challenges for both Mainland China and Hong Kong:

- Mainland China: A restrictive market boundary is not able to reflect the physical reality of the Chinese power system. China operates the "West-to-East Power Transmission" project, utilising Ultra-High Voltage (UHV) lines to physically deliver renewable energy from resource-rich western provinces (e.g., Qinghai, Gansu, Sichuan) to demand-heavy eastern provinces (e.g., Jiangsu, Shanghai, Guangdong).
- Hong Kong: Hong Kong imports nuclear power from the mainland via dedicated transmission lines. We support a system where companies can demonstrate deliverability through a design incorporating physical delivery and regional cooperation under different market regulatory regimes.

We support the proposal's flexibility to demonstrate deliverability via physical connections. We also think it is beneficial the GHGP provide clear examples confirming that dedicated transmission lines (like the CSG-HK connection) qualify as a deliverable boundary to prevent ambiguity during assurance.

Regarding new guidance for Standard Supply Service (SSS)

100. Please provide concerns or why you are not supporting.

Select all that apply:

- ☐ Markets should self-determine how resources that fall under SSS are allocated to customers
- ☑ **Concern of regionally applicable challenges to implementation**
- ☐ Unclear how partial subsidies affect SSS classification
- ☑ **Unclear rules/definition of SSS**
- ☐ All contractual instruments should be eligible for voluntary procurement.
- ☐ Other (please explain)

101. Please provide comments regarding your selected reasons for why you are not supportive.

The proposed guidance for Standard Supply Service (SSS) presents questions for vertically integrated markets like Hong Kong. We identify issues as below. And further clarification and illustration using examples relevant to non-liberalised markets.

Currently, the grid mix for one of Hong Kong's two system operators includes approximately 31% nuclear energy imported via a dedicated long-term contract. This zero-emission component is part of the standard baseload imported to ensure grid stability and is not a "product" available for voluntary purchase via Energy Attribute Certificates (EACs).

We wonder under the new proposal how this zero-emission nuclear component is accounted / whether it is defined as SSS. We note there is the mentioning of nuclear-support policies

applied to state-level electricity supply in the United States mentioned as SSS in the consultation. Further clarity is needed on accounting such nuclear power in this case in relation to the definition of SSS and residual mix, else leading to different understanding over emission factors among parties.

Our understanding and recommendation are that in vertically integrated markets where zero-carbon sources are part of the standard baseload and imported under long-term utility contracts (like the Daya Bay nuclear imports), these sources remain embedded in the SSS emission factor without separate attribute tracking.

On the other hand, it should be noted that due to the low penetration of renewable energy in Hong Kong and the limited volume of RECs sold, the statistical difference between the grid emission factor and SSS emission factor is negligible (and in the case for areas like Hong Kong Island serviced without nuclear energy, the residual mix is more or less the same too to grid and SSS emission factor). At the moment, it is unclear if the current proposal of breaking down into SSS and residual mix calculations may generate environment benefit or decision-useful data in practical terms.

Regarding updated definition of residual mix emission factors

114. Please provide reasons of support, if any.

Select all that apply:

- ☑ **Establishes clear definition for residual mix emission factors**
- ☐ Improves accuracy and relevance of market-based reporting
- ☑ **Protects the integrity of market-based accounting by avoiding double counting of attributes within the MBM**
- ☐ Clarifies the market boundary a residual mix emission factor should be calculated for
- ☐ Improves comparability and transparency across organizations and regions
- ☐ Helps incentivize voluntary sourcing of contractual instruments
- ☐ Provides an option for reporters without access to an hourly residual mix emission factor
- ☐ Other (please explain)

115. Please provide comments regarding your selected reasons for support.

The definition is theoretically sound for avoiding double-counting. From a mathematical perspective, subtracting claimed attributes (EACs/PPAs) from the total generation mix is the correct method to determine the residual emissions intensity for customers who have not made a specific green choice. In a mature market where all data is transparent, subtracting claimed attributes from the total mix is the correct method to determine the residual emissions intensity. While we support the definition, we have some concerns regarding its applicability. We detail these in our response to Q117.

117. Please provide comments regarding your selected reasons for why you are not supporting.

In Q101 regarding, we explained our understanding of relationship between grid, SSS and residual mix emission factors and would like GHGP to clarify the benefits or implications for a vertically integrated market like Hong Kong. On the other hand, under the proposal, it is important that the system operators provide timely SSS and residual mix emission factors, or else corporates may be forced to use a fossil-fuel-only emission factor, which is considered by some as penalty.

Per our understanding, in many parts of Asia where Hong Kong companies have operations, certificate systems, registries, and data providers remain far from ready to publish reliable residual mix emission factors at the level of granularity required by deliverable market boundaries. Defaulting to fossil-based emission factors in these circumstances may risk materially overstating actual emissions, disproportionately penalising organisations operating in markets with systemic or regional data limitations. The GHGP should take this into consideration.

Regarding Combined questions on updates to the market-based method

131. Please provide any additional comments regarding load profiles that need adjustment to support implementation of the proposed market-based revisions at scale. Explain how changes would make implementation feasible without undermining accuracy and integrity of the MBM.

While load profiles are feasible, there needs to be a specification on how they should be calculated to ensure comparability.

Standardised Methodology: Some methods involve simply flat averaging data, which can be inaccurate and unproductive. Without clear guidance, companies in identical sectors using different estimation methods will report incomparable emissions. Site-specific methods would be the most accurate way to capture operational differences between each facility.

Assurance Safe Harbours: Auditors currently lack clear criteria for accepting modelled profiles, creating verification barriers, especially for listed companies requiring reasonable assurance. Assurance safe harbours and guidance need to be developed before final standard publication to avoid compliance confusion and inequitable burden distribution between large enterprises and SMEs.

132. Please provide any additional comments regarding phased implementation that need adjustment to support implementation of the proposed market-based revisions at scale. Explain how changes would make implementation feasible without undermining accuracy and integrity of the MBM.

Companies generally show support for phased implementation as it would provide companies time to set up infrastructure to adhere to new reporting requirements.

Implementation of the new residual mix requirements and the associated fossil fallback rule need to be phased based on regional data availability, not just a global timeline.

For markets without credibly published residual mix emission factors, immediate implementation would result in an artificial spike in reported emissions for all grid-connected companies. We propose a readiness phase of 3–5 years. During this phase, if a region lacks a published residual mix, reporters should be permitted to use the average grid mix (location-based factor) as a proxy for the residual mix, rather than being penalised with a 100% fossil fallback. This allows time for local regulators and utilities to develop the necessary tracking infrastructure without punishing corporate reporters for systemic gaps outside their control.

Section 6: Exemptions - Hourly Matching Exemption Threshold

Regarding exemptions to hourly matching using one of the options (1-4) described above.

154. Please provide your reasons for support, if any.

Select all that apply:

- ☐ Reflects a reasonable balance of integrity, impact and feasibility as organizations under a threshold collectively contribute to fewer Scope 2 emissions than the largest consumers
- ☐ Encourages organizations under a threshold to continue to engage in voluntary procurement using an annual procurement approach
- ☑ **Provides a more equitable approach for reporting as hourly matching could be more challenging for organizations under a threshold**
- ☑ **Reduces transition strain on the electricity market and hourly matching infrastructure**
- ☐ Other (please provide)

155. Please provide any additional comments regarding your reasons for support.

Given the high cost and low feasibility of hourly matching in our region, exemptions are critical. We support exemptions for three key reasons:

Cost-Benefit Ratio: For many of our members (retail, property management) have hundreds of small sites where hourly matching is administratively impossible. The compliance costs of hourly tracking far exceed the value of the clean energy certificates purchased.

Technical Impossibility: In regions where hourly grid data is unavailable, compliance is technically impossible regardless of the reporter's willingness to invest.

Market Efficiency: Forcing small buyers into emerging hourly markets reduces market efficiency and increases costs for large buyers who are actually capable of driving meaningful emissions reductions.

159. Options 1, 3, and 4 introduce a GWh load threshold applied within a defined boundary. In section 5.3.1 question 70 you selected an exemption threshold of either of 5, 10, or 50 GWh per deliverable market boundary. If you prefer a GWh load threshold based on a different amount, propose a single threshold amount in GWh per boundary and explain why.

(a) Threshold [enter number] GWh per [deliverable market boundary / site / other]
(b) Preferred option selected in section 5.3.1, question 70

As a principle, the GHGP revision should align with other climate frameworks including the recent SBTi CNZS V2 consultation. BEC noted SBTi CNZS V2 consulted a threshold at 10 GWh for companies and 100 MWh for sites, and provided our comments[1] regarding some of the implementation challenges.

During this GHGP consultation, quite some corporate members advocate for the threshold to be applied on a per site basis rather than an aggregate per boundary basis given the difference in nature of business, and the new requirements like hourly matching are better considered at individual sites. In Question 70, members suggested 50 GWh based on an aggregate market boundary definition. However, applying a 50 GWh threshold to a single site would be too high for most sectors.

For industries like retail (e.g., convenience stores) or banking (branches), aggregate consumption is high, but individual site consumption is low. If a per side metric is adopted, the specific GWh number should be calibrated to distinguish between energy-intensive industrial facilities (which should match hourly) and commercial/retail sites (which may be exempted).

The complexity of hourly matching correlates with the number of metering points. A retail chain may consume 50 GWh in aggregate across 5,000 small meters; matching hourly for these connection points could be administratively difficult. Conversely, a single industrial facility consuming 50 GWh has the centralised resources to manage granular data.

162. Please provide any additional comments regarding the criteria to define Small and Medium Companies.

We recommend the following criteria and considerations for defining Small and Medium Companies ("SMEs") for the purpose of exemptions.

The GHGP should not create a new, unique definition of "SME" based solely on energy consumption, as this creates confusion. Instead, the GHGP should consider alignment with existing climate framework definitions (while some members also suggest allowing companies to qualify as SMEs if they meet the statutory definition in their jurisdictions). Aligning with existing reporting frameworks reduces the administrative burden of verifying eligibility.

[1] https://bec.org.hk/sites/default/files/policy_submissions/BEC%20Submission%20on%20SBTi%20CNZS%20V2%202nd%20Consultation_final.pdf

SMEs typically do not have dedicated energy procurement teams or sustainability managers capable of managing hourly data, API integrations with registries, or complex PPA negotiations. The criteria should reflect that any company lacking dedicated energy management staff will struggle with granular matching.

169. In exercising the exemption, should the organization be considered in conformance with the Corporate Standard and Scope 2 Standard?

Select only one:

- ☐ Yes, organizations using the hourly matching exemption should be considered in conformance
- ☐ No, organizations using the hourly matching exemption should NOT be considered in conformance
- ☑ **A separate conformance level should be defined for companies exercising the exemption**
- ☐ Unsure
- ☐ Other (please explain)

170. Please provide any additional comments regarding your response to question 169.

Classifying organisations that utilise the exemption as “in conformance” is essential for the standard’s global applicability and fairness. Our support is based on the following practical realities:

1. **Technological and Data Barriers:** As noted in our response to Question 115 regarding residual mixes, many jurisdictions currently lack the centralisd, real-time data infrastructure required for granular accounting. Hourly matching imposes an even higher data burden than annual residual mix calculations. If the data does not exist or is prohibitively expensive to access, organisations should not be penalised or deemed “non-conformant” for utilising a necessary exemption.
2. **Avoiding Exclusion:** Requiring hourly matching without a conformant exemption path would effectively restrict full compliance to large organizations in advanced markets. This would exclude smaller entities and those operating in emerging markets, undermining the global adoption of the GHG Protocol.
3. **Cost vs. Impact:** The administrative and financial resources required to implement hourly matching are significant. Until automation and grid data are ubiquitous, the exemption ensures that resources are prioritised toward actual decarbonisation efforts rather than complex accounting exercises that may offer only marginal precision improvements in the short term.
4. We advocate for a **separate conformance level designation**. Organisations using the exemption must be considered "in conformance" to remain compliant with the standard, but a distinct tier would enable meaningful comparability and transparency regarding the granularity of the data used.

Section 7: Legacy clause considerations

172. Please provide your reasons for support, if any.

Select all that apply:

- ☑ **Reflects a reasonable balance of integrity, impact and feasibility as existing long-term contracts reflect significant financial and operational commitments to energy resources**
- ☐ Encourages organizations with legacy contracts to continue to engage in voluntary procurement using an annual procurement approach
- ☐ Provides a more equitable approach by ensuring that early adopters of Scope 2 Guidance are not disadvantaged
- ☑ **Helps maintain trust and market confidence in long-term contracts**
- ☑ **Provides a pragmatic pathway for organizations to transition to updated Quality Criteria**
- ☐ Other (please provide)

173. Please provide any additional comments regarding your reasons for support.

There is general support for the legacy clause companies should not be penalised for following long-term contracts that follow the current scope 2 reporting requirements.

Corporate renewable energy procurement relies heavily on long-term regulatory stability. Companies have entered into 10, 15, or 20-year Power Purchase Agreements (“PPAs”) based on the GHG Protocol guidance available at the time of signing. Retrospectively changing the eligibility rules for these contracts would undermine the business case for past investments and damage trust in the standard. Grandfathering is essential to ensure that early movers who financed renewable projects are not penalised for having taken action before the new criteria were introduced.

Retrospectively changing eligibility rules would undermine the business case for past investments and damage trust in the standard. However, similar to our stance on exemptions (Question 169), a tiered conformance designation for legacy contracts maintains the credibility of the new standard while honouring legal contract obligations and encouraging early movers.

176. Which date should determine a contract’s eligibility under a Legacy Clause?

Select only one:

- ☑ **Contract signed prior to implementation date of the Scope 2 Standard (post phase-in period)**
- ☐ Contract signed prior to publication date of the Scope 2 Standard
- ☐ Other (please explain)
- ☐ Do not support Legacy Clause

177. Please provide any additional comments regarding your response to question 176.

Having the contract signed before the implementation date would be ideal since it encourages people to transition.

Our primary concern regarding the grandfathering proposal is that it covers the full original contract term.

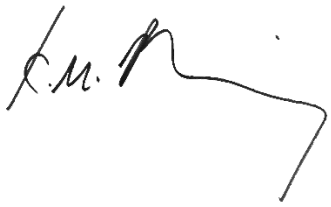
Corporate PPAs require 10 - 25 year commitments for project financing, whereas the GHG Protocol updates roughly every 5 - 10 years. Limiting grandfathering to a short transition period (e.g., only 2 or 3 years) creates systematic risk: companies will fear signing long-term contracts knowing that the next guidance update could strand the remaining value of their investment. This regulatory uncertainty would shift the market toward short-term contracts, effectively undermining the stability required for new renewable infrastructure projects.

Therefore, the exemption should apply for the duration of the original contract term.

Enquiries

For queries related to this submission, please contact our Chief Executive Officer, Mr Simon Ng at simonng@bec.org.hk.

Yours sincerely,



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