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**Submission on the Consultation Paper on  
Green Hydrogen Standard Certification Scheme  
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 the HKSAR Government (“the Government”) to help develop a supporting policy framework as well as impactful implementation in respect of environmental protection and sustainability.

Views expressed in this response 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 non-profit membership organisation comprising over 300 member organisations including multinational corporations, listed companies, small and medium-sized enterprises, startups and NGOs.

### Introduction

The Electrical and Mechanical Services Department (“EMSD”) proposed a voluntary, internationally-aligned Green Hydrogen Standard Certification Scheme (“the Scheme”), which outlines key elements including the adoption of ISO-based methodologies for calculating lifecycle emissions, criteria for classifying hydrogen as “green” or “low-carbon,” provisions for optional recognition of renewable electricity use, and the establishment of certificate units that follow hydrogen from production to the consumer gate. It also sets expectations for verification processes, documentation requirements, and potential alignment with emerging Mainland and EU regulatory regimes. By defining unified technical standards and a transparent certification pathway, the scheme aims to provide clarity to producers, users, and financial institutions, while supporting Hong Kong’s broader ambitions in decarbonisation and green finance. BEC welcomes and appreciates the opportunity to provide comments to this important scheme.

In preparing this submission, BEC engaged extensively with our membership to consolidate collective insights from across the business community. BEC convened a Dialogue Platform Meeting (“DPM”) with participation from members representing the transport sector, energy providers, and consultancy firms. During the session, representatives from the EMSD and the Hong Kong Monetary Authority (“HKMA”) were invited to brief members on the proposed Green Hydrogen Standard Certification Scheme and its potential integration into the Hong Kong Green Finance Taxonomy. The participants expressed strong support to the establishment of the Green Hydrogen Standard Certification Scheme. Our members have also identified several implementation challenges in the Hong Kong context. These include the limited availability of local renewable energy to support verifiable green hydrogen production,

uncertainties around the cost and scalability of import-dependent hydrogen supply chains, and the need for clear guidance on verification procedures that can accommodate Hong Kong's heavily service-oriented, infrastructure-constrained environment. Addressing these practical considerations will be essential to ensure the scheme is both ambitious and feasible during its initial implementation phase.

Our detailed feedback in this submission aims to provide constructive, business-informed recommendations on the design and implementation of the Green Hydrogen Standard Certification Scheme, drawing on practical insights from across the energy, transport, finance, and professional services sectors. Our objective is to support the Government in establishing a certification framework that is credible, internationally interoperable, and workable in the Hong Kong context, while enabling early-stage market development and investment confidence. By addressing both strategic alignment considerations and on-the-ground implementation issues, BEC hopes to contribute to a robust and forward-looking scheme that supports Hong Kong's decarbonisation goals and reinforces its role as a regional hub for green finance and low-carbon energy solutions. Our recommendations focus on the following themes:

### Signal on Renewable Electricity use

In the current scheme, whether hydrogen is classified green or not is based solely on lifecycle emission. Some BEC members raised concerns allowing "green" classification without a mandatory renewable energy ("RE") basis (as long as the threshold 3.384 kgCO<sub>2</sub>eq/kgH<sub>2</sub> is met) may risk credibility and interoperability with EU regimes. For example, electricity generation fuelled by hydrogen that meets the proposed life-cycle emissions threshold could result in emissions that exceed EU Taxonomy technical screening criteria of 100 gCO<sub>2</sub>e/kWh life-cycle GHG emissions, for electricity generation from renewable non-fossil gaseous. While the scheme offers additional recognition of certifying the hydrogen as being produced by RE, we recommend considering a transition signal regarding RE use, while retaining a flexible, threshold-based approach. For example, the Government can consider keeping the lifecycle threshold approach but requiring a disclosure line-item on the certificate indicating the percentage of renewable. A guidance for acceptable RE evidence can help producers seeking the "Renewable-Produced" recognition to assess source credibility.

In applying lifecycle greenhouse gas accounting under ISO-based methodologies, BEC would like to highlight the importance of clarifying the treatment of biogenic emissions, particularly in the context of landfill gas utilisation. ISO/TS 19870 does not explicitly define the treatment of biogenic CO<sub>2</sub> emissions arising from landfill-derived feedstock. In line with internationally recognised practices under the IPCC Guidelines, relevant provisions under the EU Renewable Energy Directive (RED II/III), and prevailing approaches adopted in the Chinese Mainland context, CO<sub>2</sub> emissions originating from biogenic sources such as landfill gas are generally treated as carbon-neutral and excluded from lifecycle GHG calculations.

BEC therefore recommends that the Scheme provides explicit guidance on the treatment of biogenic CO<sub>2</sub> emissions, confirming if they are excluded from lifecycle GHG intensity calculations where the carbon originates from biogenic sources. This clarification would be particularly relevant for waste-to-energy and landfill-based hydrogen projects in Hong Kong and the Greater Bay Area, and would improve methodological certainty, consistency with international standards, and investment confidence for circular-economy-aligned hydrogen pathways.

### Interoperability with EU and Mainland requirements

BEC supports the scheme in seeking recognition of the scheme with Europe and the Mainland. We recommend that, in the next stage, the Government can publish a mutual recognition roadmap that identifies EU-recognised schemes targeted for equivalence, specifies what additional data fields HK certificates must carry for EU acceptance, and sets milestones for testing equivalence via pilot verifications with EU scheme operators. The Government can consider formalising Mainland alignment by documenting mappings to emerging Chinese Standards and setting up a Mainland-HK technical working group under the Scheme to keep criteria synchronised. It will give producers and financiers a clear pathway for exports to the EU, matching Hong Kong's "super-connector" value proposition. The Government can publish a regional engagement plan suggesting priority economies (e.g., Korea, Singapore, Australia, Japan) with an outline of bilateral pilot recognitions and joint verifier training.

### Implementing modular certificate units

Under the Scheme definition, transport emissions are included up to the consumption gate, and BEC supports this lifecycle-based approach. At the same time, practical implementation would benefit from allowing modular certification units that reflect different stages of the hydrogen value chain, including production, conditioning or conversion, and transportation. Providing granular visibility on the carbon intensity impact of logistics would support traceability of upstream modules and help reduce re-verification costs where only the last delivery leg changes.

BEC recommends that certificates explicitly state the defined consumption-gate location, transport mode(s), and assessed transport distance. Where a certified hydrogen product is subsequently delivered to a different end-use location, minor variations in transport distance or routing that do not materially change lifecycle emissions should be accommodated through a simplified addendum or supplementary module, rather than requiring full recertification. This approach would improve administrative efficiency while preserving environmental integrity.

For projects fully contained within Hong Kong, where transport distances are relatively short and operationally constrained, BEC further supports maintaining flexibility in defining the consumption gate. Local transport emissions should not become a dominant factor in determining "green" status where production-stage emissions clearly constitute the primary determinant of lifecycle performance. The adoption of standardised assumptions for local transport legs could help ensure fairness and consistency across local applications.

### Traceability & blending controls

The current ISO-based approach recognises hydrogen before blending. However, when hydrogen is mixed, it could be difficult to recognise and accurately trace the carbon intensity. To maintain the credibility of the certification system, it may be helpful for the scheme to consider clarifying how blending situations will be handled, including possible requirements for mass-balance accounting or traceability mechanisms. Clear guidance in this area could ensure that certified hydrogen claims remain transparent and verifiable across the supply chain.

### Sunset date

As low-carbon hydrogen is considered transitional which is time-bound, it is recommended low-carbon hydrogen should have a sunset date, aligning with the HKMA taxonomy framework. It is suggested to adopt a provisional sunset year for Low-carbon Hydrogen, such as 2035 so to be consistent with HKMA's transition sunset, or specify objective trigger conditions, such as when X% of certified volumes can meet the threshold 3.384 kgCO<sub>2</sub>eq/kgH<sub>2</sub> and is produced by renewable, which should be reviewed at subsequent reviews.

### Finance-enabling features

Financial institutions can play a pivotal role by offering preferential, low interest sustainability linked loans, supported by lower risk weighting, to both hydrogen producers and end users certified under the proposed scheme, improving project bankability and easing cash flow pressures during the initial deployment phase. In parallel, the Government should consider introducing CAPEX grants to support the upfront investment for essential hydrogen infrastructure such as refuelling stations, import terminals, and bulk storage facilities, which would be particularly impactful for franchised bus operators and logistics firms facing substantial capital commitments. These targeted measures can be complemented by a per kilogram production incentive for certified green or low carbon hydrogen, helping producers narrow the cost gap with conventional fuels, while the primary emphasis remains on reducing financing and capital hurdles for users and infrastructure developers. In particular, early-stage Government financial support is critical to address the high upfront capital cost of hydrogen infrastructure, which remains the principal barrier to commercial deployment. Clear policy signals in the form of capital grants, concessional financing, or targeted incentives can play a catalytic role in bridging the cost gap, accelerating infrastructure rollout, and enabling green hydrogen projects to progress from pilot to commercial scale.

### Exploratory path for a book-and-claim style hydrogen certificate

While this is beyond the scope of a certification scheme, in the future, the Government can explore a separate credit or book-and-claim mechanism so buyers unable to physically access green hydrogen could support the transition and claim decarbonisation benefits. BEC recommends the Inter-departmental Working Group on Using Hydrogen as Fuel working with the industry to assess feasibility, guardrails, and integrity risks of a voluntary attribution system for hydrogen. It will create an early demand signal and financing channel before infrastructure fully matures, while keeping integrity controls central.

### Governance and administrative arrangements

A clear governance structure is important to ensure the credibility and operational stability of the certification scheme. While the proposed framework outlines several key roles, the consultation document provides limited detail on mechanisms for handling disputes or review of certification decisions. To strengthen confidence among market participants, consideration could be given to establishing an independent appeal or review mechanism. Such a mechanism would allow applicants to seek clarification or reassessment in cases where certification outcomes are disputed, helping to ensure procedural fairness and transparency in the verification process.

In addition, the Scheme may consider refining the validity period of hydrogen certificates to

ensure that certified projects continue to meet the required standards over time. BEC recommends establishing a minimum certificate validity period of one year, coupled with a streamlined renewal process focused on identifying material changes only. Where no substantive changes to production pathways, energy inputs, or logistics arrangements have occurred, renewal should be handled through a simplified reassessment rather than a full re-certification exercise, helping to reduce administrative burden on applicants and verification bodies.

We would like to highlight the need for greater clarity on the roles and responsibilities of third-party entities within the certification framework. In particular, it would be helpful for the Government to clarify whether a pre-approved list of accredited verification bodies will be maintained, and whether the same entity may concurrently serve as the accreditation body, independent verification body, and issuance body, or whether functional separation is required. Providing early and clear guidance on these governance arrangements would enhance transparency, reduce transaction costs, and strengthen confidence among market participants engaging with the Scheme for the first time.

### International trade implications

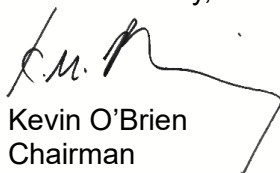
As the consultation document highlights the importance of obtaining recognition from both the Mainland and European markets, it may also be useful to consider how international climate-related trade policies could interact with the proposed hydrogen certification scheme. In particular, the European Union's Carbon Border Adjustment Mechanism ("CBAM"), which is being gradually implemented, introduces carbon pricing requirements for certain imported products based on their embedded emissions.

While hydrogen with very low lifecycle emissions may face limited carbon cost exposure under such mechanisms, the practical impact will depend on how emissions are calculated and whether certification methodologies are recognised across jurisdictions. Differences in system boundaries, lifecycle accounting approaches, or verification standards may therefore affect how exported hydrogen is assessed in international markets. In this context, it may be beneficial for the Government to monitor developments in carbon border policies and consider alignment, where appropriate, with widely recognised accounting approaches. This could help minimise potential trade barriers and support Hong Kong's role as a super-connector linking Mainland hydrogen supply with global low-carbon energy markets.

### **Enquiries**

For queries related to this submission, please contact our Chief Executive Officer, Mr Simon Ng at [simonng@bec.org.hk](mailto:simonng@bec.org.hk).

Yours sincerely,



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