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Submitted to: BC Ministry of Environment and Climate Change Strategy
GHGRegulator@gov.bc.ca

IETA COMMENTS ON BC DRAFT FOREST CARBON OFFSET PROTOCOL 2.0

The **International Emissions Trading Association** **(IETA)** appreciates this opportunity to share input on the Government of British Columbia's "*Greenhouse Gas Offset Protocol: Forest Carbon*" (**Draft Protocol**), published by the Ministry of Environment and Climate Change Strategy (**MECCS**) in March 2021.

IETA is the leading international business voice on climate markets and finance. Our non-profit organization represents over 150 companies, including many facing climate risks and opportunities across Canada and British Columbia (**BC**). IETA's market expertise is regularly called upon to inform market-based policies that deliver measurable greenhouse gas (**GHG**) reductions and removals, address economic competitiveness concerns and balance economic efficiencies with social equity and co-benefits. We strongly believe that carbon markets with high-quality offsets represent backbone policy tools to support legitimate and cost-effective attainment of climate ambition and net-zero goals, including for BC.

Our comments on the draft protocol are structured around the following main sections:

- **Section 1: Priority High-Level Input** relevant to all proposed protocol and future opportunities;
- **Section 2: Detailed Comments on Proposed Protocol** specific to sections of FCOP 2.0;
- **Section 3: Other Considerations for FCOP 2.0** while finalizing protocol and moving forward with post-2022 BC climate and carbon pricing policies; and
- **Annex A: Supporting Graphic**: "*Overview of Equation Relationships in Section 8 of British Columbia's Proposed FCOP 2.0 Draft*" (accompanies Section 8 of IETA's comments in Section 2).

SECTION 1: PRIORITY HIGH-LEVEL INPUT

IETA urges MECCS to recognise the potential influence and impact of FCOP 2.0 both domestically and abroad – and to heavily consider this influence while finalizing this protocol. If well-designed and usable, **FCOP 2.0 could present an enormous opportunity to BC** in terms of low-cost high-quality supply creation, clean project investments, socio-economic and other environmental co-benefits, and impactful support for Indigenous communities across the province.

Once final, it will be critical that FCOP 2.0 is **replicable, deployable, scalable and economically viable**. This "omnibus" (i.e., extending across project types) forest carbon protocol has great potential to further accelerate climate action further, while delivering investment and co-benefits not only in BC but also across Canada and internationally. Future **FCOP 2.0 generated units could potentially be used to help achieve a variety of climate policy and corporate goals, including:** BC government carbon neutral mandates; voluntary domestic corporate commitments, international voluntary corporate commitments; federal OBPS compliance (via Recognized Units); future compliance under potential post-2022 BC compliance market regimes; and/or international Article 6-type pilots.

FCOP 2.0 protocol could also set the **functional groundwork for demonstrating the effectiveness of scaled-up Natural Climate Solutions (NCS)**. Numerous protocol developers and policymakers are **looking at BC FCOP 2.0 model to potentially inform and/or adapt to various compliance and voluntary systems**. We therefore believe it is vital that the final protocol be practical, cost-effective, usable and a true "success" and “best practice” model for others to not only use but adapt/adopt across these other systems. Should the final version be poorly-designed, non-transparent, excessively conservative and ultimately unusable, this broader ecosystem of climate regulators, standards and project developers will unfortunately have to explicitly flag what design elements are problematic and must be avoided.

IETA Priority Concerns and Gaps

As currently written, **the draft protocol features numerous gaps, inaccuracies and is excessively conservative to the point that is simply unworkable** and fails to achieve its stated climate and clean investment policy objectives. Further, our community of market, standard and protocol experts have noted a significant **lack of transparency and inaccuracy issues with the BC Model,** which underpins the draft protocol. Finally, there is a **demonstrable lack of Indigenous consideration** in the draft protocol, which we urge MECCS to address and remedy prior to the protocol finalize in fall 2021. These issues, concerns and recommended solutions are addressed in more detail in Section 2 and Annex A.

SECTION 2: DETAILED COMMENTS ON PROPOSED FCOP 2.0

The following contains more detailed IETA input and recommendations related to specific sections in the draft protocol. Reference to specific protocol sections and sub-sections are featured in brackets.

Definitions (2.0)

Concerns with Forest Land (180): IETA is concerned about the exclusion of viable canopies from the protocol due to the minimum crown cover required in the draft protocol. The minimum crown cover requirement in the draft of 25%, is much larger than the National Forest Inventory (NFI) requirement of greater than 10% crown cover. We recommend revising this lower bound on the amount of crown cover to align with the NFI.

Concerns with Permanence Timeframe (206): IETA has concerns about the definition of the monitoring period in the draft protocol, "*Monitoring Period means the 100-year period through which a Project Proponent must ensure Emission Reductions and Removal Enhancements are Permanent*" (206). The definition stated requires an offset to consider permanence on 100 years. While we support the timeframe as discussed in our comments to the federal output-based pricing system (OBPS), an indication of which party upholds the maintenance of the protocol to ensure permanence becomes a pertinent issue. We ask the BC government to provide clarity on which parties maintain liability of the permanence throughout the lifetime of the offset when an offset is sold.

Eligibility (3.0)

Requirement for Private Land to Provide Proof of Fee-Simple Ownership (3.1): IETA recommends that the definition of “private lands” be extended to First Nations Reserves and other forms of Aboriginal Title. Where the Reserves and Titles provide the First Nation with autonomy over forest management practices on the lands, these instances are consistent with forest carbon projects on other private lands but such lands are not held in fee simple title.

Registered Professional Forester Requirement (3.1): The draft protocol specifies the Project Proponent, Validation Body, and Verification Body must all have a Registered Professional Forester (RPF) on their project teams (438-439). Based on our experience, this is not a typical protocol requirement or standard practice in developing forest carbon offset projects. Common practice suggests that the protocol needs to be reviewed and signed off by an RPF; however, the Project Proponents are not required to have an RPF on the project team. The practice suggested in the draft would only increase (already high) transaction costs faced by the project developer. We recommend that MECCS eliminate this requirement of having a RPF on each project team.

20-Year Period Site Requirement (3.2.1): The draft protocol states that project sites fitting the specification of being "*Forest land for at least 20 years before Project commencement*" (452) fall under Conservation/Improved Forest Management (CONS/IFM). However, the protocol then specifies the exact requirement of 20 years of forest land (493). IETA requests that MECCS provide a rationale for establishing this benchmark for the site of protocol development? We also ask what would be available to viable carbon-sequestering lands with forests, which do not meet this specification?

Clarity on Definition of "Imminent Threat" (3.2.3): IETA requests that the BC government provide a more thorough and precise definition of “imminent threat”. The protocol draft states, "*(t)he Project Proponent must demonstrate that there is an imminent threat of conversion of Project land to a non-Forest land use*" (526). We recommend that the BC government establish a timeframe that clearly defines what constitutes an "imminent threat" to create consistency, avoid confusion and provide confidence to project developers and market participants.

Requirement of Evidence Prepared by a Designated Member of the Appraisal Institute of Canada (3.2.3): All information to be included in an appraisal report is publicly available. As such, a Project Proponent is capable of creating a robust report (referencing all sources) and a Verification Body could verify all report without the need to hire an appraiser. The additional cost of hiring an appraiser continues to thin margins and incentives for viable project development. We recommend that the proposed requirement for a *Designated Member of the Appraisal Institute of Canada* to “compile the report” be removed and the final protocol only require a verification of the report.

Error Consistency (3.5): The draft specifies two different standards for errors based on the amount of tonnage the project supports. IETA is concerned that this distinction creates an incentive structure that spurs project developers to take on smaller projects. IETA recommends that MECCS specify, despite the project size, that a project is upheld to the same reporting error standard of either 2.0% or 5.0%.

Inconsistency of Materiality Threshold (3.5): IETA has found a discrepancy in the definition of the materiality threshold across the protocol draft. The materiality threshold specified in lines 544-546 is inconsistent with that stated in lines 200-203. Lines 544-546 reference effects that result in an overestimation *or* underestimation, and Line 200-203 references effects that result in *only* an overestimation. IETA asks that MECCS clarify if underestimation greater than the materiality threshold is acceptable.

Additionality Concerns (3.6): We reiterate IETA's long-held position that environmental and legal/regulatory additionality are paramount criteria and hold serious concerns about the use of financial (or other supplementary) additionality criterion. In addition, according to Section 3.6: "The Project Proponent must assert that the Project has not received any financial incentive, including direct funding or a reduction in applicable fees or tax burden reductions on a per unit of reduction/removal basis and that the incentive created by participating in the carbon market was among the main motivating factors for the implementation of the Project." (564- 567) We strongly disagree with this proposal and urge MECCS to take the same approach to Direct Financial Incentives (DFIs) and project/project proponent eligibility as Canada's proposed federal offset system[1]. IETA sees numerous examples of Canadian projects that may require additional financial incentives beyond carbon offsets revenue to become economically-viable. The ability to be eligible for BC offset credit generation while receiving complementary project funding and incentives is a strong and defensible proposal.

Project Site (4.0)

Consistency in Mapping Data Source (4.2.1): IETA does not support use of only the "*Provincial base mapping, corporate spatial data stored by Data BC*" (587) when mapping-out the project site area. We believe a mapping standard that is better than, or equal to, the BC data is sufficient in providing "*unique identification of all Project Instances*" (618). Developers should be able to access their own data (whether publicly and privately held) to map a project site area, provided they are held to a verifiable standard.

Problem with Local Study Area and Leakage Assessment (4.2.1): Section 4.2.1 states that a leakage assessment area should be included if applicable; however, there is an inconsistency in how the external harvest leakage is quantified in this area based on the entire North American market. We ask that the BC government further specify how this is calculated and considered within the protocol.

[1] Proposed Greenhouse Gas Offset System Regulations (Canada). Canada Gazette 1. 6 March 2021. (**Link**)
IETA Comments on Federal Draft Offset Regulations (CG1), submitted to ECCC on 5 May 2021 (**Link**).

Establishment of Baseline Scenario (5.0)

Barrier Analysis is Insufficient and Problematic in Ensuring Additionality (5.0): The draft protocol uses a baseline approach of barrier analysis borrowed from the Kyoto Protocol UN Clean Development Mechanism (CDM), which has a history of being highly subjective and problematic. The CDM approach also adds substantial costs associated with analyses and drafting multiple scenarios, which are not even relevant to the project context. Going forward, IETA recommends that MECCS instead use workable best practice approaches for regulatory and common practice standardized test, many of which have been recommended or adopted by Western Climate Initiative (WCI), California, Quebec, the world's leading voluntary registries. We believe these approaches offer greater objectivity in additionality determination and reduced complexity and transaction costs.

Availability of Historical Data (5.2.1): IETA recognizes the importance of establishing a baseline scenario to ensure additionality but raises two concerns with the proposed requirement that "*Project Proponents must prepare a verifiable record of historic natural resource management practice occurring on the site prior to the Project, for a period of at least 20 years*" (717-719). There is no precedent for 20 years of historical records in any other reputable carbon offset protocol or crediting program. For comparison, many programs and methodologies only require 3-5 years of historical records, which is a considered a much more reasonable and sufficient period.

Ex-Post Adjustment to Baseline (5.3): IETA strongly disagrees with the proposed approach enabling the BC government to make ex-post adjustments to the baseline scenario. This approach is widely-recognized as disreputable in offset systems, as it introduces significant policy, regulatory and administrative uncertainty into Project Proponent investment/risk considerations over a project lifetime. The real or perceived risk of ex-post baseline scenarios adjustments will reduce project/offset volumes and have a chilling effect on viable forest carbon investment opportunities in BC. We urge MECCS to remove this ability from the draft protocol before finalization.

Project Scenario Justification (6.0)

Financial Motivation (6.0): IETA is concerned with the proposed requirement that the "*Baseline Scenario candidate is less financially attractive than the Projects Proponent's established and documented internal investment hurdle rate even taking into account existing government climate change or other incentives*." For FCOP 2.0, we urge MECCS to take the same approach to Direct Financial Incentives (DFIs) and project/project proponent eligibility as Canada's proposed federal offset system[2]. Numerous projects exist that may require additional financial incentives beyond carbon revenue to become economically-viable. Further, we have major concerns with the draft protocol's proposal to share investment hurdle rates and decision-making criteria, as this is often competitively sensitive information and data.

[2] Proposed Greenhouse Gas Offset System Regulations (Canada). Canada Gazette 1. 6 March 2021. (**Link**)
IETA Comments on Federal Draft Offset Regulations (CG1), submitted to ECCC on 5 May 2021 (**Link**).

Project Scenario Justification (7.0) – See Table 1 (7.2)

Quantification Methodology for CH4 in Harvested Wood Products Not Specified: The greenhouse gases for Harvested Wood Products (HWP) in Use includes CO_2 and CH_4. However, no quantification method is provided within the protocol that accounts for CH_4 in HWP. IETA recommends removing the reference to CH_4 or providing a quantification method.

Quantification of Emission Reduction and Removal Enhancements (8.0)

Full Implementation (Section 8) Example: It would be valuable for MECCS to provide one example of full implementation of Section 8, *Quantification of Emission Reduction and Removal Enhancements.* Given the complex nature of FCOP 2.0, an example of a full implementation of this section would prove helpful and allow project developers to comprehensively understand the function of the protocol and avoid potential misinterpretations, errors and/or wasted administrative resources.

Concerns about Model Inaccuracies and Utilization of Equations 1-33 (8.0): IETA is extremely concerned that the draft protocol requires using the BC model/framework to calculate the change in net CO_2e (equation). We have found several inaccuracies, errors, and vague references in the model. Priority concerns are detailed below and in **IETA's Equation Map found in Annex** A.

BC Model Risks, Liability and Allowing for 3rd Party Verified Model: Of particular concern is the BC model's accuracy considering that under the draft protocol, project developers may be liable for the accuracy of the model. While we understand that using just one framework makes validation easier, we see no reason why project developers must be limited to the use of the BC calculations. We urge the BC government to allow for a verified 3rd party model.

Clarity on Explicit Model Application and Uncertainties: The draft protocol calls for using the following models in section 8.1.1.3: TIPSY, TASS, VDYP and CBM-CFS3. However, it does not explicitly state how these models apply in the equation framework of section 8 or elsewhere. In addition, IETA recommends that the protocol explicitly describe the uncertainties of each model, in order for the statistical accuracy of the modelling approach be well-defined and publicly-visible.

Ambiguity on Liability of Models and Modelling Framework of Section 8 (8.0): The draft protocol specifies that "*the province does not assume any liability in the case of model errors that affect Project reductions*" but does not clarify whether this applies to equations the province specifies in the equation framework of section 8 or the use of the models stated above. We ask that MECCS explicitly specify which models for which the project developer will be liable in terms of ensuring accuracy.

Relationship between Equations 4, 5 and 6 is Ambiguous (8.1.1): While the relationship between these terms is specified in the draft protocol. It is ambiguous how one is calculated from the other. We recommend better notation for the sake of clarity in this section. Additionally, we suspect typos in equations 13 and 14 as the terms are not utilized elsewhere; otherwise, IETA assumed that the "F" s were meant to be "M" s.

FCOP 1.0 Development Established Density Factors Utilized in Table 3 as Incorrect (8.1.2): The values in Table 3, when sent to Verra for accreditation (VM0034) as part of FCOP 1.0 evaluation, deemed these factors to be incorrect and specified that the wood density factors in VM0034 were more appropriate.

Quantification Approach Between Methodologies Inconsistent (8.1.1.1): IETA is concerned that the quantification approach between methodologies outlined in section 8.1.1.1 is biased toward the direct measurement methodology. The direct measurement method requires following Vegetation Resources Inventory (VRI) or National Forest Inventory (NFI) standards for conducting field sampling. However, the indirect method allows the Project Proponent to choose their type and level of measurement. Since both methodologies apply field measurement to a model to calibrate VRI data, the indirect method needs to follow VRI standards to uphold consistency. Additionally, site audits are not required for the indirect method, but they are for the direct. Again, both these methods are used to supply field measurement to a model and should be held to the same standard. Finally, the discrepancy between the verification times between both methodologies should be unified. IETA recommends considering amalgamating these methodologies into a unified quantification of Carbon Reservoirs or providing a consistent framework between both methodologies.

Requirement of VRI and NFI Standards for Capturing Forest Parameters (8.1.1.1.1): While effective at capturing a broad scope of attributes across various landscapes through BC and Canada, VRI/NFI do not suit the purpose for a forest carbon offset protocol. In general terms, forest inventories are designed on specific goals and objectives unique to the project development site. Using these standards inhibits the purpose of conducting forest inventories. IETA recommends allowing Project Proponents to choose their type and level of measurement, similar to the indirect measurement method, and require use or adaptation of standard operating procedures within published inventory standards or handbooks. Allowing Project Proponents to choose their type and level of measurement ensures peer-reviewed and standard sampling techniques are utilized while adapting to each unique forest carbon project.

Annual Reporting Based on Average of Two Periods (8.1.1.1.1): The proposed requirement that annual reporting be based on the average between two periods is inconsistent across all modelling cases. Consider the case where strictly a field sample is conducted and no modelling is used. The direct field measurement from the second period is not available, and the average cannot be calculated. Therefore, modelling must be used in the direct measurement method and projected offset units in years where sampling is not conducted is permitted. IETA recommends eliminating the reference to annual reporting being permitted based on the average between two periods; annual reporting should be permitted based on modelled forest carbon projections consistent with the required model (CBM-CFS3).

Utilizing the Contingency Account for Climate-Related Risks (8.1.1.2): Lines 1145-1146 specify that project proponents must demonstrate their accounting for climate-related risks in the short-medium and long term; however, we believe this is well accounted for by the use of a contingency account. We recommend removing this requirement and assume that this concern will be accounted for as part of the contingency account.

10% divergence from historical management arbitrary and inflexible for Improved Forest Management Projects (IFM) (8.1.1.2.1): The baseline determination provisions for Crown forests limit the extent to which a baseline can diverge from historical management by 10% (1160-1178). IETA believes the baseline divergence is an arbitrary and inflexible limitation that effectively makes forest carbon projects unviable for Indigenous Communities and other license holders to leverage the value of carbon sequestration to achieve more optimal outcomes. It is akin to telling communities that they need to prove a baseline but, even if they prove it according to the Government's standard, they can only generate a small fraction of the real sequestration.

Crown Land Projects Unworkable (8.1.1.2.1): IETA has found that the incentive structure provided for Crown Land Projects in section 8.1.1.2.2 (1167-1170) is unviable for incentivizing investment and increased forest management protocol development on Crown Lands. Particularly, the limitation of reduction to 10% per decade in Harvest levels is a major hindrance to creating a viable protocol – a project harvesting in the first 60 years of the Project will not decrease from baseline by more than 1% a year, leaving the Project only to develop credits from the 1% difference. Under these project development criteria considering all other costs associated with the protocol, a project developer may not even break even on their investment. Without reducing harvest levels or increasing timber supply, credit generation will be minimal and not compensate for improved forest management activities. We recommend that MECCS removes or reduces these stringencies on Crown Land Projects to foster a workable protocol.

Limitations of CBM-CFS3 (C3) (8.1.1.3): IETA is concerned with the ability of the CBM-CFS3 model to scale to include all project sizes. To adapt this model to smaller scales, we have found that major assumptions have been undertaken that could otherwise be eliminated by using other models – allowing for more accurate calculations and converting tree measurements to biomass/carbon units. The model only functions to project stand-level carbon, where each stand is classified by its leading species but takes no direct field measurements. This methodology is severely limited for protocols; there is greater uncertainty in the carbon inputs on a single leading species of each stand, and there is greater uncertainty in the carbon outputs for stands with lots of species' diversity. IETA strongly calls for tight statistical thresholds and accuracy of models utilized in the protocol to ensure the quality of the offset monitoring, reporting, and verification; we recommend considering the combined use of the Canadian national biomass equations: new parameter estimates include BC data (Ung et al. 2008), the National Scale biomass Estimators of the United States Tree species (Jenkins et al. 2003) and Methods and equations for estimating aboveground volume, biomass, and carbon for trees in the U.S. Forest Inventory (Woodall, 2010), allowing protocol developers to utilize their own model or provide a model better suited or the nature of the protocol.

Exclusion of Prognosis BC Model in Forest Carbon Section (8.1.1.3): IETA recognizes that common growth and yield models for BC are provided; however, we have not seen mention of the Prognosis BC model in the draft protocol. We believe that prognosis is an ideal model candidate for the following reasons: it takes individual-tree measurements and projects growth and yield at both the stand level and tree level, the BC government is already utilizing it, the model can output individual tree diameters, it can output biomass carbon directly from individual tree measurements (using the Fire and Fuels extension), and it takes direct inputs from field measurements and projects the amount of carbon stored over time, along with increased individual tree diameters over time. IETA recommends that BC consider including the Prognosis BC Model in the protocol.

Inconsistency in Forest Carbon Model (8.1.1.3): Lines 1066-1070 specify two options for quantifying carbon reservoirs in the project scenario. This is not consistent with Section 8.1.1.3, where it is specified that the CBM-CFS3 model is required for use in the protocol. While we recognize that direct sampling can determine forest volume and then input to CBM-CFS3, the language utilized suggests a more direct model to input field measurements. IETA recommends eliminating scenario (a) as the requirement to use CBM-CFS3 automatically prescribes option (b) – where direct field sampling is already implemented.

Calculation Issues with HWP (8.1.2): IETA would like to flag multiple concerns from our members surrounding this section. First, Table 2 specified in FCOP 1.0 provides the *fraction* of HWP in use over 100 years, whereas the draft protocol indicates the protocol developer needs to consider the *amount* over 100 years. Additionally, there are inconsistencies between table 2 and appendix H. One specifies small amounts of carbon will be stored in the HWPs after 100 years, and the other specifies that as much as 49% may still be stored after 100 years, respectively. Second, equation 25 only calculates the CO_2e stored in HWPs for the time between the project start and the end of the reporting period, which is ambiguous regarding whether the values are required to be recalculated for 100 years. Similarly, equation 7 calculates the *fraction* of HWP in use based on the time since harvest to the end of the project reporting period. It is unclear whether this calculation requires 100 years in consideration or otherwise. Third, the draft protocol specifies that the reporting period be a minimum of 12 months and a max of 5 consecutive years, yet the calculation for HWPs specifies the use at the end of the project report period and not over 100 years. Finally, in the case of a conservation project, carbon stored in HWPs for the Project is zero, whereas the carbon stored in the HWPs for baseline is positive. IETA recommends a thorough revision to all sections about HWPs.

Multiple Concerns on Proposed default leakage factors for Land Use-shifting Leakage (L1) and Harvest Shift leakage (L2) (8.3.1 & 8.3.2):

Unviable for Implementation: Independent evaluations of the project-specific leakage tool for actual projects considering IFM that meet a very high standard for real, additional, verifiable, and permanent reductions. The result is arbitrary and does not reflect the commercial reality, resulting in an immaterial decrease from the default factor. The default factors and project-specific determination methods, as proposed, eliminate the viability of most forest carbon opportunities. IETA urges MECCS to revise the project-specific leakage tool with these shortcomings in mind.

Calculation Errors: In the calculation of L1, there are two instances where there is no description of how to calculate a particular variable in equations 22 and 21. Additionally, one variable in equation 21 states the calculation is similar to equation 3. The similarity is not easily apparent, and we ask that MECCS explicitly define the calculation of this variable. In the calculation of L2, there are two options provided, and this could be made clearer in the protocol draft by specifying that option 1 requires the use of equation 23 and option 2 requires the use of equation 26. Regarding L2 option 1, we ask for further elaboration on the rationale behind the default assumption values in table 7 provided in Appendix C. In the calculation of L2 option 1, the methodology for calculating a variable in equation 24 is not specified. Regarding L2 option 2, the default leakage values in table 5 appear to be extremely high; we ask the BC government to provide details on how these values were determined. Please see the equation map in the annex for further details of IETA's concerns and questions. Consultation with our members has revealed that this calculation method is too conservative for members to engage in protocol development.

Assessment of Macroeconomic Impact: IETA has found the approach to leakage determination also does not account for the macro-level impacts of creating a financial value for carbon sequestration. An effective forest carbon program, considering profit maximizing agents, would create a value per m^3 of standing timber that forest managers can use to optimize timber harvesting for the relative values of carbon sequestration and timber revenues. If the relative value of carbon sequestration is higher, it will lead to less harvesting. Forest managers across the province would be making this calculation. As a result, a decision to forego harvesting favouring sequestration is less likely to lead to leakage because all forest managers will face this same opportunity. It could also lead to timber prices increasing if many opt to forego harvesting. This, in turn, would lead to product substitution or choices to harvest more and sequester less. IETA recommends further modelling and considering the macroeconomic consequences that arise as part of the protocol development.

Inability to Revise Harvest-shifting leakage (8.3.2): IETA has found no specified reason for not allowing the revision of harvest shifting leakage once the project plan is established (1690-1693). If the new alternative approach does prove to be more favourable, it is unclear why this cannot be revised. Additionally, the difference between the two approaches depends on changing forest management practices relative to the baseline, so this requirement restricts project activities after the Project Plan has been established. We ask the BC government to provide a rationale for why revision is not allowed.

Equation 27 Correction (8.3.2.2): Parameters $M_{s,\,baseline}$ and $M_{s,\,Project}$ describe that their value is determined in a manner analogous to $RWBiomass_d$ in Equation 9, except that this mass is determined by species rather than by HWP type. However, Roundwood biomass is derived from species s, not by HWP type. IETA recommends that MECCS eliminate this sentence.

Allowing Moderate Intentional Reversals (8.4.1): The Government proposes to terminate projects that cause intentional reversals. IETA suggests that a moderate reversal that can be compensated for within the crediting period should be allowed. Termination of a project should only occur if the proponent causes

a reversal that results in the carbon stocking being below the baseline. This is common practice in most compliance and voluntary protocols.

Government Reversals on Crown Land (8.4.2): IETA raises concern at the BC government's ability to not count "*Reversals as a result of provincial government decision-making on Crown land…" (1949-1950).* We believe the root of the reversal is inconsequential to carbon accounting, and permitting a reversal that results from a provincial decision undermines the integrity of the protocol. We believe that the BC government should be required to compensate a proponent for the total value of the reversal (including tonnes lost and verification costs associated with the reversal) when they are liable for enacting a reversal.

Ambiguity in Language of Natural Regeneration (8.4.3.4): IETA seeks clarity in lines 1989-1991, where "Offset Units may not be claimed resulting from sequestration from natural regeneration." The definition of natural sequestration is ambiguous as the very nature of all project types is that offset units are claimed from some form of forest growth – natural regeneration. The language currently used in this statement suggests that once a reversal occurs, the project no longer holds the ability generate offsets generated from natural regeneration. IETA recommends that the BC government provide clarity on if a reversal occurs whether a project is still viable for credit generation.

Contingency Account Design (8.4.5): IETA recommends amending the description of the contingency account to provide more clarity on whether the contingency account is designed to account for only unintentional and intentional reversals. If the contingency account accommodates both unintentional Reversals from natural disturbances and intentional reversals from project harvesting, we are concerned that this could create an incentive for bad actors to deplete the contingency account since they can still follow the protocol. IETA recommends that the contingency account only be allowed for use in the case of unintentional reversals to prevent moral hazard.

Excessive and Abnormally Large Contingency Account – with Bounds from 28% to 71% (8.4.5.1.1): While we agree that the use of buffer accounts or reserve mechanisms – where a small percentage of project issuances are deposited and used to address reversals while maintaining environmental/market integrity – is considered best practice across existing voluntary and compliance offset programs, we do not believe a buffer pool of the size the draft protocol specifies is necessary. IETA has traced the problem back to equations 28, 32, and 33. Specifically, we ask the BC government to provide a rationale for the approach utilized in the calculation of the beta value in equation 32 and table 20 as part of Appendix H. Additionally, we ask for clarity on the upper bound as the values specified in Appendix H indicate the possibility of a 71% contingency account but elsewhere in the protocol 51% is specified to be the cap. Again, consultation with our members has revealed this calculation method to be too conservative for members to engage in protocol development. In comparison programs such as the California Air Resources Board offset program have had contingency contributions in the order of 15% for more than a decade. The handful of instances of an involuntary reversal have not come remotely close to exhausting the contingency. We urge the BC Government to consider the Californian approach and to consider lowering the cap on the contingency account. Finally, we ask that the BC government specify what will happen to the offsets that are unused in the contingency account.

Requirement of the remaining Timber supply (Q_N) to be the five-year average of annual total timber harvest in North America for the most recent period (Appendix C): IETA believes that this preservation parameter (2271-2272) does not accurately reflect the market share of timber in each project as it's based on the past average annual timber harvest across North America. The equation assumes that the reducing harvest carbon offset project in BC impacts the entire timber market in North America regardless of the scale of the project. This assumption is not reasonable, and we urge the Government to allow for adjustments in the parameter **(Q_N)** relative to project size.

Outdated Supply and Demand Price Elasticity (Appendix D): The values *e* and *E* utilized in lines 2322-2323 are outdated – they are from 2000. IETA believes that this approach to leakage determination results in inaccurate default factors and leads to artificially high numbers that fail to account for the dynamic of adding carbon sequestration as a competing value to timber on all forests. We strongly recommend that updated values are provided that reflect today's supply and demand elasticity.

5% Significance Level Requirement for Price Elasticity (Appendix E): The language used in lines 2454-2455 infers using a statistical level significance to categorize the substitutable woods. If statistical language is meant, then the requirement of price elasticities that are over 5% does not make sense in a statistical context. IETA recommends clearer language to specify that the 5% is a threshold level based on price elasticities. Further, we request that the BC government provide justification on where this threshold is derived from.

Equation 33 Relevance (Appendix H): Equation 33 appears to rely on DRI's calculated in 1995. We find the date on these values to be far too out of date. IETA strongly believes in using the most up-to-date science and technology to ensure the quality and accuracy of protocol calculations and development, and urges MECCS to find a more recent implementation of this particular variable. Further, we question its relevance as it references states of biodiversity based on "European contact."

SEE ANNEX A – Outline of Equation Framework with Additional Comments:
IETA encourages MECCS to carefully review **Annex A** of IETA's comments. This Annex provides an outline of the equation framework with additional comments and an expanded view of all draft protocol equations while clearly summarizing IETA concerns under Section 8 framework.

SECTION 3: OTHER CONSIDERATIONS WHILE MOVING FORWARD

Concerning Lack of Indigenous Consideration in Draft: We have serious concerns that the protocol is essentially devoid of: any process for Indigenous engagement in project development; recognition of Indigenous rights, including but not limited to the right to Free and Prior Informed Consent; and statement of how the protocol will be implemented per BC's *Declaration on the Rights of Indigenous Peoples Act* (**DRIPA**). The only instances where a reference to an Indigenous concern occurs in equation 1 as part of the "*other deductions"* term and briefly in section 3.1.2c where there is passing reference to the Project Proponent conducting "*a local stakeholder and/or community engagement prior to validation as a way to inform the design of the project and maximize community participation*" (421-422). These instances fail to adequately address the intent of DRIPA. We strongly encourage MECCS to use more inclusive language and enable capacity-building efforts within the protocol, with a view to maximizing authentic Indigenous participation in BC forest carbon projects while supporting land stewardship efforts and ensuring alignment with DRIPA and ABSA.

BC Economic Competitiveness and Forest Industry Considerations: Protocol development must always be mindful of potential economic competitiveness impacts and ensuring equity/fairness across all sectors. While IETA recognizes the importance of the forest industry in BC, we believe a well-implemented forest carbon protocol does not need to be a hindrance to this industry. Instead, FCOP 2.0 represent a fundamental tool in transitioning and diversifying the revenue streams of the provincial forestry industry, all while bolstering long-term resilience; and this is especially true when looking to international markets, export opportunities, competitiveness and attracting clean capital. The bias safeguards forestry activities within the draft protocol could lead to substantial opportunity costs instead of economic benefits for BC.

Ensure Stability and Predictability: Stable and predictable protocol development, regulatory requirements, and rules are critical and necessary for all market participants to make long-term business and investment decisions. It is critical that BC avoid introducing uncertainty with an unanticipated protocol or market design changes. This "stroke of pen" risk, unfortunately, seen far too often in other Canadian carbon markets, will not only limit offset investments but also have a chilling effect on investment across the market and general confidence in the BC climate policy environment. Dramatic policy changes have a significant negative impact on market growth, investor confidence and the availability of least-cost abatement opportunities needed to accelerate BC and Canadian climate action.

Minimize Transaction Costs and Ensure Economic Viability of Protocols: A broad and meaningful forest carbon offset protocol will simply not materialize in BC if project development and transaction costs are too high, opportunities too limited and constraints too binding. It is critical that FCOP 2.0, once final and adopted, be economically viable and include conservative but reasonable data-driven defaults. Strong defaults provide the basis for consistency and quality by providing a known standard to which all credits are inherently upheld. This base allows for smooth functioning of the forest carbon offset market, as buyers do not face the problem of asymmetric information and there is a mitigation the risk of reversals.

Enable Canadian Intra-Market Linkages and Fungibility: The benefits of market linking are clear: the bigger and broader the market, the wider the range of abatement opportunities, finance and investment interest, technology innovations, and improved efficiencies, resulting in lower program costs and an expanded portfolio of emission reductions. We hope to see continued expansion of market links and credit fungibility from BC to within Canada and beyond our domestic borders. Further, the final design and deployment of FCOP 2.0 should be guided by the principle of achieving compatibility with Internationally Transferred Mitigation Outcomes (ITMOs) and cooperative approaches, as established under Article 6 of the Paris Agreement. International cooperation through high-integrity market mechanisms can encourage domestic and foreign investment into the BC economy. As MECCS finalizes the protocol, we urge officials to review IETA comments, submitted to Canada's federal international climate negotiators in March 2021, in response to Canada's "*Draft ITMO Framework and Proposed Approach to Article 6*"[3].

CONCLUSION

Once again, IETA appreciates this important opportunity to record our comments on the *Proposed British Columbia Greenhouse Gas Offset Protocol: Forest Carbon*. We encourage the BC government to reach-out directly with any questions or follow-up requests related to our insights and recommendations by contacting IETA Managing Director, **Katie Sullivan (sullivan@ieta.org)** and IETA Analyst, **Sam Grootelaar (grootelaar@ieta.org).**

SEE ANNEX A to IETA Comments:
"*Overview of Equation Relationships in Section 8 of British Columbia's Proposed FCOP 2.0 Draft*"
(Accompanies Section 8 comments, above)

[3] "Draft ITMO Framework and Proposed Approach to Article 6". ECCC. February 2021 (Link). IETA Comments, submitted to ECCC on 18 March 2021 (Link).