

14 April 2022

Ministry of Environment and Climate Change Strategy  
Via email at [GHGRegulator@gov.bc.ca](mailto:GHGRegulator@gov.bc.ca).

To whom it may concern:

**Re: Draft Offset Protocol Policy**

Thank you for the opportunity to comment on the Draft Offset Protocol Policy (“Draft OPP” when referring to the current draft and “OPP” when referring to a final version). In our view, the Draft OPP falls short in fundamental ways, and as a result provides few guarantees that protocols developed or reviewed will ensure that offsets are used in ways that enhance the health of the global atmosphere.

These submissions will be divided into two sections. First, we will outline some overarching concerns with the assumptions of the Draft OPP that will undermine the value of the developed offsets in addressing climate change. These assumptions likely relate more generally to the role that the Province sees offsets as playing, but are embedded throughout the Draft OPP.

Second, we will discuss the lack of meaningful criteria in the Draft OPP for offset development and review. In particular, while the Draft OPP states in the Overview that the goal of the OPP is the development of protocols that “deliver real, quantifiable, verifiable, permanent and additional emissions reductions and/or removals,” none of these terms are defined. In addition, the Draft OPP does not address social and environmental impacts as a key criteria to be addressed in offsets. These concepts are key to the integrity of an offset system and yet the Draft OPP gives no direction as to how protocols should ensure that these goals are met.

**Overarching concerns**

The Draft OPP says little about what role offsets are intended to play under provincial regulations. We understand that currently they are primarily used in the carbon neutral government program or sold in voluntary offset markets. However, on page 4 of the Draft OPP, we learn that the goal is to “maximize market-based opportunities for BC offset projects while ensuring the environmental integrity of offsets generated,” leading to “augmented opportunities for market-led incremental reductions and removals.” Marketability of offset units in the global carbon market appears to be a major criteria.

Our understanding, then, is that the Draft OPP is based on an assumption of a “one size fits all” approach, in which offsets generated in a variety of ways may be used to neutralize/offset GHG emissions occurring anywhere, from any source. In our view, this assumption is inconsistent with climate science. The Draft OPP, and the government programs that rely upon it, should be fundamentally re-evaluated in this light.

The one size fits all approach assumes that anyone who can afford a generic offset should be entitled to continue emitting, regardless of whether alternatives exist that could remove those emissions. As such, this approach to offsets decreases the likelihood that polluters will reduce their emissions, while reducing the

potential that the offsets will be used in ways that restore the global atmosphere or offset emissions from essential industrial processes that cannot be easily decarbonized.

Protocols should be developed based upon their ability to enable BC to do its part in achieving a stable, liveable climate. Each protocol should be developed with specific climate change goals and based upon a specific understanding of how they will be used. For example, it may be appropriate to use forest carbon offsets to offset emissions from land use or the release of methane; such emissions are both part of the fast carbon cycle. It is, however, entirely inappropriate to use forest carbon offsets to offset emissions from extracting and burning fossil fuels – which put into the global atmosphere carbon that had previously been locked away for millennia. For more on this point, see our discussion of permanence, below.

The one size fits all approach to offsets also seems to assume that each tonne of carbon removed from the atmosphere can “balance” a tonne of carbon emitted. In actual fact, scientists are increasingly finding that there is an “asymmetry” between emissions and removals, and that more than a tonne of carbon dioxide must be removed to have an effect equivalent to one tonne of emissions.<sup>1</sup> This effect is even more pronounced when there is a time lag between the emissions and the removal.

While avoided emissions do not have that effect (since the avoided emissions never enter the atmosphere), they do present tremendous difficulties for ensuring additionality, as discussed below. The reality is that all sectors must be reducing emissions as quickly as possible, and using avoided emissions in one sector to justify continued emissions in another fundamentally undermines the value of avoided emission offsets.

Finally, notwithstanding that there may be those that wish to offset our way out of the climate crisis, there are real limits to the extent to which offsets can actually result in reduced GHG concentrations in the atmosphere, and the types of reductions in emissions necessary for a stable climate. The Draft OPP desires to ramp up BC’s production of offsets with no recognition or discussion of what these limits might be.

The fact that the Draft OPP contains no discussion of these fundamental issues, and instead treats the development, allocation and use of offsets as a market issue, with little elaboration on what that means, demonstrates that the government needs to fundamentally rethink its use of offsets.

### **Lack of criteria for offsets**

As noted in the Overview, the integrity of offsets depends upon systems that transparently and credibly ensure that the emissions avoided or removed are: “real, quantifiable, verifiable, permanent and additional...”

This list tracks closely the best practices for developing offsets, with one notable exception. It does not make any reference to the social and environmental impacts of the offsets. In the words of the Carbon Offsets Guide, published by the GHG Management Institute and Stockholm Environmental Institute, offsets should “Not [be] associated with significant social or environmental harms.”<sup>2</sup>

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<sup>1</sup> Zickfeld, K., Azevedo, D., Mathesius, S. et al. Asymmetry in the climate-carbon cycle response to positive and negative CO2 emissions. *Nat. Clim. Chang.* 11, 613–617 (2021). Online: <https://doi.org/10.1038/s41558-021-01061-2>; see also Gage, A, Koza, F, Harder, S. Net Zero or Net Reckless (West Coast Environmental Law, 2022), pp. 32-33, available at <https://www.wcel.org/publication/NETs-report>.

<sup>2</sup> [http://www.offsetsguide.org/wp-content/uploads/2020/03/Carbon-Offset-Guide\\_3122020.pdf](http://www.offsetsguide.org/wp-content/uploads/2020/03/Carbon-Offset-Guide_3122020.pdf).

All of these requirements of high quality offsets must be front and centre in any protocol and structured based on the best available science, and the Draft OPP should ensure consistency across developed protocols (recognizing that there may be some variation based on the specifics of the sector and the use for which the offsets are to be used.)

However, the Draft OPP provides no further meaningful discussion or definition of these key concepts. Some are mentioned again in passing, and others not at all.

Andrew Gage of our office spoke with Mr. Chris Fleming of your Ministry, who suggested that the Greenhouse Gas Industrial Reporting and Control Act<sup>3</sup> (the “Act”) and the Greenhouse Gas Emissions Control Regulation<sup>4</sup> (the Regulation) provide some of the direction we are looking for on permanence, additionality, monitoring and reporting. In our view these provisions, while providing context, are intended to work in tandem with a protocol. Consequently, they confirm the need for the OPP to address these criteria and to provide useful direction as to how a protocol should address them. We will discuss these legislative provisions further below.

The Draft OPP speaks about evaluating the “suitability” and “readiness” of Monitoring, Verification and Reporting (MVR) methodology, and the “robustness” of protocols, without any indication how that would be judged. These criteria should be clearly defined and guide the development of any protocols.

The failure of the Draft OPP to discuss the role of the Protocols in meeting these criteria is particularly surprising given that in 2013 the Auditor General of BC issued a report that was sharply critical of BC’s offsets program as it was then, including because the Pacific Carbon Trust (which at the time administered the program) had not developed clear guidance on the development of protocols and how the legal requirements of the Emissions Offset Regulation were to be addressed in protocol development:

We also found that there is currently limited guidance for protocol development and approval. Over the course of the audit, the PCT acknowledged that gaps exist between [the Emissions Offset Regulation] and a fully functioning greenhouse gas program regarding protocol development and approval. The PCT has acknowledged that defining these protocol requirements will increase the credibility of the program, streamline the process of approving projects, expand the scope of the GHG program, provide greater certainty for project developers, and outline criteria for validation bodies to validate against.<sup>5</sup>

It is not our intention to review best practices in offset development. Many resources and approaches are readily available, and the government should explicitly lay out which approach it will be following. Rather, we will make general comments about the concerns which we feel must be addressed in relation to each.

## **Real**

A recent evaluation of carbon dioxide removal and carbon capture and storage (CCS) technologies found that when a full lifecycle analysis was conducted many of these projects generated more CO<sub>2</sub> than they removed/reduced. As the authors of that report noted:

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<sup>3</sup> *Greenhouse Gas Industrial Reporting and Control Act*, S.B.C. 2014, c. 29 (the “Act”).

<sup>4</sup> *Greenhouse Gas Emissions Control Regulation*, B.C. Reg. 250/2015 (the “Regulation”).

<sup>5</sup> Auditor General of BC. *An Audit of Carbon Neutral Government*. (2013), p. 26, available at

[https://www.bcauditor.com/sites/default/files/publications/2013/report\\_14/report/OAG%20Carbon%20Neutral.pdf](https://www.bcauditor.com/sites/default/files/publications/2013/report_14/report/OAG%20Carbon%20Neutral.pdf).

In order to assess whether a process adds to or reduces atmospheric CO<sub>2</sub> ... it is necessary to look at the entire capture and storage process, and to compare the total quantity of CO<sub>2</sub> emissions with the quantity of CO<sub>2</sub> removed and stored. This requires a full life cycle analysis (LCA).<sup>6</sup>

This challenge exists for avoided emissions as well. The OPP must require full life-cycle analysis in a transparent and credible manner to ensure that the emissions reductions or removals are real.

In the Regulation, key definitions (notably “baseline scenario” and “project emissions”) refer to calculating emissions from “selected sources.” The term “selected sources” is not defined in the Regulation, although the Director’s powers under s. 10 of the Act are broad enough to include defining them. We note that the “selection of sources” was a key component to be defined in protocols under its predecessor, the Emissions Offsets Regulation (“EOR”).<sup>7</sup> There is no reference to sources in the Draft OPP, which currently does not give any direction as to how to determine which sources should be included.

In our view the Draft OPP must define selected sources to include all emissions throughout the life-cycle of the project, in order to ensure future protocols require that projects result in real emissions reductions.

### **Additionality**

Similarly, if the emissions in question would have been reduced in any case, without the purchase of the offset, then the offset is not actually improving the health of the atmosphere, and any emissions offset is worsening it. Additionality has been difficult to judge, described by the Auditor General as “One of the most challenging aspects of ensuring the integrity and credibility of offsets.” Failure to meet this requirement has undermined the integrity of existing offsets systems, and was one of the areas of which the 2013 Auditor General Report was most critical.

The Regulation does not define additionality, although as noted, it provides some guidance as to how to calculate a project’s emissions relative to a baseline. There are a number of problems with equating this direction with additionality.

First, and foremost, additionality includes the requirement that, but for the purchase of the offset, the project would not occur.<sup>8</sup> We do not see anything in the Act or Regulations which speaks to this requirement, so it should be addressed either through amendments, or in the OPP and the Protocols developed under it.

As with permanence, the Regulation incorporates the protocols by reference. The function of the Regulation, and its ability to ensure that additionality is achieved, requires the detail and direction found in the protocol. Once again, then, the Draft OPP should define the relationship between the Regulation and the protocols that are developed under the OPP, but does not.

In addition to the general challenges of additionality, the entire concept of additionality and the use of offsets is problematic at this stage of the climate crisis when emissions reductions should be occurring across the board and in BC where a rising carbon tax and other regulations should be driving emissions levels down. Each

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<sup>6</sup> Sekera, J., Lichtenberger, A. Assessing Carbon Capture: Public Policy, Science, and Societal Need. *Biophys Econ Sust* 5, 14 (2020). <https://doi.org/10.1007/s41247-020-00080-5>.

<sup>7</sup> *Emissions Offset Regulation*, B.C. Reg. 393/2008, repealed, s. 7(1)(a).

<sup>8</sup> The OAG Report, above, note 5, Appendix 1, includes several relevant definitions on this point.

sector in the Province has stringent emissions targets and the Province has a host of current and future programs and plans to reduce emissions in these sectors.

We are disturbed that the Draft OPP makes no mention of these sectoral targets, the carbon price and other climate programs, and the relationship between them and the additionality requirement.

If there are economically efficient emissions reduction measures, these should be occurring in every sector of BC's economy. It will be extraordinarily difficult to judge what emissions reductions would only occur with the additional incentive of an offset purchase.

Granting offsets for some of these reductions will mean that those reductions are no longer counted towards the emitting company or (if transferred to another sector) its sector. Offsets sold on the international market will no longer even be counted towards BC's GHG reduction targets. As a result, BC offsets mean that achieving the province's sectoral and provincial targets may become even more difficult, requiring sectors or the province as a whole to generate emissions reductions that go beyond the targets to cover additional offsets.

### **Permanent**

Climate change is a crisis unfolding over decades and centuries. Carbon that has been locked in fossil fuels for tens of thousands of years (the slow carbon cycle)<sup>9</sup> is being released into the atmosphere where it will remain for between 300 to 1000 years.<sup>10</sup> When it leaves the atmosphere, most of it will remain in the fast carbon cycle for many more millennia, increasing its likelihood of re-entering the atmosphere more frequently.

So permanence, and what is meant by it, is fundamental in fighting the climate crisis. Offsets, if they are to have value in addressing the climate crisis, must lock away carbon for a very long time, and ideally should not provide incentives for the extraction of fossil fuels (which moves carbon out of the slow carbon cycle and into the fast cycle).

The Draft OPP does not currently provide any guidance on what is meant by permanence, and/or how permanence is calculated.

Sections 10(1)(f) and 12 of the Greenhouse Gas and Industrial Reporting Act relate to accounting for the risk of an accidental reversal of an offset. Section 12 focuses on reversals in the first 100 years, but this is not the same as a definition of permanence and does not preclude the possibility that a protocol may aim for permanence that far exceeds 100 years. The Draft Forest Carbon Offset Protocol (FCOP), pursuant to these sections, provides for extra offsets to be transferred to a "contingency account" as a guarantee against some of the offsets being burnt within 100 years.

We strongly object to the assumption that 100 years is an appropriate duration for assessing the permanence of offsets. It may be arguable that there are purposes for which offsets can be used in which a 100 year offset will be sufficiently permanent; for example, an offset related to emissions associated with land use (where the land is expected to be restored within 100 years) or methane emissions (which remains in the atmosphere for a much shorter time period). It may also be appropriate to use 100 year offsets in relation to carbon neutral

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<sup>9</sup> <https://earthobservatory.nasa.gov/features/CarbonCycle>.

<sup>10</sup> <https://climate.nasa.gov/news/2915/the-atmosphere-getting-a-handle-on-carbon-dioxide/>

government, if one views that program as more a funding mechanism for the measures covered by the offsets and not as detracting from an ongoing obligation on the government bodies to reduce their actual emissions.

In general, however, we agree with the Offset Guide, among others, which observes that:

One common misunderstanding is that – for carbon offsets – “permanent” means something *less* than hundreds or thousands of years. A standard convention, for example, is that carbon only needs to be kept out of the atmosphere for 100 years (or less, in some cases) to be considered “permanent.” Such compromises are frequently made in the context of carbon offset programs seeking to balance technical requirements with the practical constraints of insuring against reversals. But, scientifically, anything less than a full guarantee against reversals into the indefinite future is not “permanent.”<sup>11</sup>

In our view, the Draft OPP must be amended to clarify that protocols should always aim for long-term (1000+ year) permanence, and that lower levels of permanence will only be appropriate if the protocol defines limits for the purposes for which the offset may be used, to limit them to emissions which only persist for shorter periods of time or for other appropriate roles.

### **Quantifiable and Verifiable**

The Draft OPP refers to the importance of a Monitoring, Verification and Reporting (MVR) methodology at several points. Step 1 of the process for protocol development includes confirming that a “a suitably robust, scientific peer-reviewed MRV methodology exists and can be readily employed in B.C.” However, there is no discussion of what these criteria mean. Again, some direction about the levels of oversight required are found in the Act and Regulation, but they again incorporate the Protocols by reference. Consequently, the OPP should define what content the protocols should have to enable credible and transparent implementation of the legal framework. As noted, while the Draft OPP speaks of the suitability of MVR frameworks, it does not currently give any direction as to how the suitability is to be assessed.

### **Social and environmental impacts**

Neither the Draft OPP nor the Legislative framework make any explicit reference to the social or environmental risks and impacts of offsets. Section 3(2)(u) of the EOR, prior to its repeal, provided that a project plan had to include: “a description of any analysis undertaken to determine the environmental impact of carrying out the project.” However, the Act and the Regulation do provide for additional requirements through a protocol, and we strongly urge you to require an evaluation of the social and environmental impacts of the projects.

The recent IPCC Working Group III report highlights many of the types of risks and co-benefits associated with carbon dioxide removal,<sup>12</sup> but similar risks and benefits can exist for avoided emissions projects as well. Risks depend upon the particular technique used, but may include energy and water use, air and water pollution, and loss of land use for other purposes, among others.

The importance of considering the downsides of offsets is particularly important if, as the Draft OPP suggests, the Province’s priority is offsets that can be scaled up dramatically. A minor social or environmental impact of

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<sup>11</sup> <https://www.offsetguide.org/high-quality-offsets/permanence/>.

<sup>12</sup> IPCC, Working Group III, AR 6, Technical Summary, table TS.7, at p. 99, available at [https://report.ipcc.ch/ar6wg3/pdf/IPCC\\_AR6\\_WGIII\\_FinalDraft\\_TechnicalSummary.pdf](https://report.ipcc.ch/ar6wg3/pdf/IPCC_AR6_WGIII_FinalDraft_TechnicalSummary.pdf).

one project may be manageable, but become truly problematic when the same model is rolled out on a large scale.

With consideration of such risks and co-benefits, the impacts of projects can be managed and projects that will have unacceptable impacts can be avoided. Without such consideration, the offset projects may harm communities and the environment and may actually undermine the ability of regions to adapt to climate change. They may also negatively impact the rights of Indigenous communities.

Moreover, a failure to consider these impacts creates uncertainty for industry and government, if planned for offsets are not ultimately built due to the impacts, or due to huge social backlash.

Not only should social and environmental impacts be discussed in the OPP, but the development of protocols that have lower social and environmental risks should be prioritized.

## **Conclusion**

The Draft OPP seems to assume that offsets are a social good that will help the province achieve its climate goals while bringing economic return to the province. While offsets can play a role in decarbonizing the economy, and in helping other jurisdictions meet climate goals, this picture fails to recognize the limits, risks and questions surrounding offsets.

It seems to also assume that there is general agreement about the key features of a good offset and that experts will agree on what should be in a good protocol, so that the OPP need only set out procedural steps. We strongly disagree with this assumption.

If the protocols developed under it are going to be effective climate tools, the Draft OPP needs to force those developing the protocols to ask the tough questions and to consider what the appropriate role of the offsets are in BC's climate plan.

We suggest that the failures of the Draft OPP demonstrate the need for the province to take a step back and ask sober questions about what we are trying to accomplish through offsets.

Sincerely,

A handwritten signature in black ink, appearing to read "Andrew Gage". The signature is fluid and cursive, with a long horizontal stroke at the end.

Andrew Gage,  
Staff Lawyer