Comments on WAC 173-446

Brief Synopsis of the Background of the Signee

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I write these comments on the current draft of WAC 173-446 on my own behalf. I hope that my attention to these rules is somehow beneficial to children worldwide and their descendants. I have a Ph.D. in molecular biology (University of Colorado, Boulder). I worked at the Hutchinson Cancer Research Center from 1983-1998 (postdoc, technician, staff scientist) before going law school (University of Washington) and earning a J.D. I worked as a patent attorney from 2001-2020 (Immunex, Amgen, and as a solo practicioner). I am currently retired.

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I. Comments on Offsets and the Meaning of Additionality

WAC 173-446-020 leaves the concept of additionality open to interpretation since "additional" GHG reductions/removals are defined as those that are not required by law and exceed what would "otherwise occur in a business-as-usual scenario." Song and Temple report that some projects receiving payment as forest offset projects in California are not truly "additional" in the sense that the GHG reductions/removals provided by the projects would likely occur in the absence of the payment received by the offset projects. *See, e.g.,* Lisa Song and James Temple, *Is California's offset program actually helping the environment?*, High Country News, May 11, 2021. ***If projects that are not truly additional are included as approved offset projects, GHG emissions actually increase rather than decrease, even though "emissions limits established under RCW 70A.45.020, as reflected in the annual allowance budgets developed under RCW 70A.65.070 are not increased by use of offsets" (RCW 70A.65.170(5)(a)).*** To illustrate this point, suppose that a covered entity meets 6% of its compliance obligation with offsets that are not truly "additional." On paper, the entity will be in full compliance with the CCA, even though its offsets will not be providing any GHG reduction/removal benefit that would not have occurred in a business-as-usual scenario. Further suppose that the entity emits GHGs consistent with the amount of allowances and offsets it submits in compliance. This means that 6% of the allowances it would have needed for compliance in the absence of the offsets are available to cover other emissions (either by the entity in question or another entity), thereby increasing actual total CCA program emissions. Therefore, even though the cap is unchanged, actual emissions will exceed those allowed by the cap, even with all entities in full formal compliance. ***Thus, I believe it is important to ensure that all registered offsets are truly additional, even though the use of offsets does not affect allowance limits.***

A California-approved forest offset project involving a piece of land owned by the Massachusetts Audubon Society, which had been managed for a long time as crucial wildlife habitat, provides a clear example of a non-additional offset project. Song and Temple, *supra.* The suggestion by the Audubon Society that they could log the land was deemed a sufficient demonstration of additionality for the California regulators to include this land as an offset project in their program. Essentially, California regulators concluded that since the plot of land *could* be logged, it *would* be logged absent the income from use as an offset, despite its historic use as a nature preserve. It was clearly quite unlikely that the Audubon Society was ever going to log the land. Environmental groups sued the California Air Resources Board (CARB) over its interpretation of "additionality" in 2012, but an appeals court ruled that CARB's interpretation of "additionality" was reasonable. *Id.*

The CCA has adopted the CARB protocols for Livestock Project, Forest Project, Ozone Depleting Substances Project, and Urban Forest Project offsets. WAC 173-446-505(3). ***In my view, Washington would be well-advised not to follow California in its interpretation of additionality, regardless of whether it decides to use the bulk of what is contained in the CARB protocols.*** Possibly other aspects of CARB's program might also be questionable. For example, the amount of GHG emissions reduction/removal assignable to a particular plot of forest land is based on the geographic location of the land, not the nature and number of trees on the land, which is what is determinative of the land's ability to remove CO_2 from the atmosphere. Song and Temple, *supra.*

One possible solution to the additionality issue would be to amend the definition of "Additional" in WAC 173-446-020. Below I provide a proposed amendment that addresses the issue raised above, with <u>underlining</u> to show insertions.

> "Additional" means, in the context of the offset provisions of this rule, greenhouse gas emission reductions or removals that exceed any greenhouse gas reduction or removals otherwise required by law, regulation or legally binding mandate and that exceed any greenhouse gas reductions or removals that would otherwise occur in a business-as-usual scenario. <u>To obtain a determination of additionality from ecology, an offset project operator or authorized project designee must provide credible evidence and/or a sworn</u>

affidavit made under pain of perjury that the following are true: (1) greenhouse gas reductions or removals expected to be provided by the offset project activities exceed those otherwise required by any regularly-enforced law, regulation or legally binding mandate of the state of Washington or the United States; (2) the proposed offset project activity would not be financially attractive in the absence of the revenue generated by selling the project activity as an offset; (3) at least one alternative to the proposed offset project activity would not be prevented by a non-financial barrier such as social, institutional, historical, or technical barrier; and (4) the proposed offset project activity is not common practice or is distinct from similar activities that are common practice. In light of this evidence and/or sworn affidavit, ecology shall make a determination of whether a particular offset project provides an "additional benefit" with regard to greenhouse gas emissions or removal.

I hope that this proposed amendment can serve as a basis for stimulating discussion around this important issue. I have likely raised only a subset of the possible criteria that could be examined to ensure the additionality of an offset project. Alternatively, some or all of these concepts could be added to other portions of WAC 173-446 discussing what must be shown to demonstrate "additionality." As a further alternative, Washington could look to other offset protocols for guidance as to how to handle the issue of additionality. As a stopgap measure to meet the current deadline for completing a final rule, the Washington Department of Ecology (*hereinafter* Ecology) could add provisions describing how they might substitute other offset protocols for the CARB protocols if this was eventually found to be desirable.

As a caveat to the previous paragraphs, I don't believe that paying a long-standing conservation project like that of the Massachusetts Audubon Society as an offset is necessarily a bad thing. Such plots of land are likely to be free from wholesale logging for longer than the period required for an offset, and the money might be used to purchase more land that would also be conserved. However, since the CCA states that offset projects must be "in addition to greenhouse gas emission reductions or removals otherwise required by law and other greenhouse gas emission reductions or removals that would otherwise occur" (RCW 70A.65.170(2)(b)(ii)) and since an additional amount of carbon reduction/removal helps to meet the goals of the CCA, I believe WAC 173-446 should specify some clear standard for determining additionality. Given the language in the CCA, it seems that registration of long-standing conservation projects as offset must await future legislation.

A further aspect of WAC 173-446 makes it doubly important to ensure that offsets are additional. Subparts (a) and (b) of WAC 173-446-600(6) echo the language of RCW 70A.65.170(3) and lay out what proportion of a covered entity's compliance obligation can be satisfied by offset credits in the first and second compliance periods. RCW

70A.65.170(7) lays out a flexible standard for the third and subsequent compliance periods, giving Ecology authority to modify the standard by rule making.

> (7) Beginning in 2031, the limits established in subsection (3)(b) and (e)(ii) of this section apply unless modified by rule as adopted by the department after a public consultation process.

RCW 70A.65.170(7). RCW 70A.65.170(3)(b) and e(ii) together specify that a total 6% of an entity's compliance obligation may be met with offsets in the second compliance period, a standard that WAC 173-446-600(6)(c) preserves for all subsequent compliance periods as can be seen in the following language:

> (c) For the third and subsequent compliance periods no more than four percent of a covered entity's or opt-in entity's compliance obligation may be satisfied by offset credits including offset credits from projects on federally recognized tribal land. A covered entity or opt-in entity may satisfy an additional two percent of its compliance obligation using offset credits generated from offset projects on federally recognized tribal land.

This establishes that six percent of an entity's compliance obligation can be satisfied by offsets from 2031-2050.

In my view WAC 173-446-600(6)(c) should specify that Ecology has discretion to adjust the percentage of a covered entity's compliance obligation that could be covered by offsets downward if certain criteria were met. This would allow Ecology to adjust for currently unknown future market conditions to meet our GHG emissions reduction/removal goals without having to engage in another round of rulemaking. Below I suggest a possible amendment of WAC 173-446-600(6)(c), with <u>underlining</u> to indicate added language.

> (c) For the third and subsequent compliance periods no more than four percent of a covered entity's or opt-in entity's compliance obligation may be satisfied by offset credits including offset credits from projects on federally recognized tribal land. <u>If prior to the third or a subsequent compliance period ecology finds that the numbers of allowances available in the marketplace, the prices of allowances, or any other existing condition would substantially hinder the CCA cap and invest system in meeting its GHG emissions reduction/removal goals set by RCW 70A.65.070(2) (*citing* RCW 70A.45.020), ecology may reduce the four percent stated above to a lesser number that can be as low as zero.</u> A covered entity or opt-in entity may satisfy an additional two percent of its compliance obligation using offset credits generated from offset projects on federally recognized tribal land. <u>If prior to the third or a subsequent compliance period ecology finds that the numbers of allowances available in the</u>

> <u>marketplace, the prices of allowances, or any other existing condition would substantially hinder the CCA cap and invest system in meeting its GHG emissions reduction/removal goals set by RCW 70A.65.070(2) (*citing* RCW 70A.45.020), ecology may reduce the two percent stated above to a lesser number that can be as low as zero.</u>

I offer this proposed amendment to provoke thought and discussion, not necessarily as a finished rule. ***In view of the uncertainties about the additionality of offsets and the operation of the cap and invest market, I believe it is important for Ecology to amend WAC 173-446-600(6)(c) to give itself the flexibility to modify the percentage of a compliance obligation that may be met with offsets downward to cope with unpredictable future conditions.***

Offset programs might also be improved by inclusion of additional categories of offsets such as projects that recycle materials, where producing the materials anew will have harmful environmental effects such as, e.g., GHG emissions and/or emissions of harmful substances into already overburdened communities. For example, some components of batteries, including cobalt and lithium, must be mined, causing GHG emissions, destruction of plant life (thereby reducing GHG removal), use of large amounts of water (thereby lowering water tables and, potentially, threatening agriculture, people, and animals), and contamination of communities around the globe with toxic substances. *See, e.g.,* Todd C. Frankel and Karly Domb Sadof, *The hidden costs of cobalt mining,* The Washington Post, February 28, 2018, *available at* *https://www.washingtonpost.com/news/in-sight/wp/2018/02/28/the-cost-of-cobalt/*; Institute for Energy Research, *The environmental impact of lithium batteries,* November 12, 2020, *available at* *https://www.instituteforenergyresearch.org/renewable/the-environmental-impact-of-lithium-batteries/*; Ivan Penn, Eric Lipton, *The lithium gold rush: inside the race to power electric vehicles,* The New York Times, May 6, 2021, *available at* *https://www.nytimes.com/2021/05/06/business/lithium-mining-race.html*. Thus, recycling cobalt and/or lithium could clearly be beneficial. Recycling might also be a way to circumvent supply chain issues due to international conflicts, other political situations, or the aftermath of the pandemic, as well as a way to create jobs here in Washington. ***I encourage Ecology to consider adopting or creating protocols for registering and administering such recycling projects as offsets and including such protocols in the present or a future rule making.***

II. Miscellaneous Comments on Specific Sections

WAC 173-446-150(2)(a) and (b).

If I am interpreting the equations in these sections correctly, they mean that all covered entities, regardless of their yearly amounts of emissions, are allowed to bank the same fairly substantial number of allowances of each vintage for future sale or use to meet emissions obligations. It is hard to know how this will play out, and the holding limits (*see*, WAC 173-446-150(2)(a)-(f)) may be helpful in avoiding problems. However, California is currently facing the issue of having an oversupply of allowances held by market participants, and at least one expert has opined that it is threatening the system. *See, e.g.*, *https://www.volts.wtf/p/volts-podcast-danny-cullenward-on?utm_source=podcast-email%2Csubstack&utm_medium=email&s=r#details*. ***I ask that Ecology closely consider these provisions in light of their potential to create an oversupply of allowances on the market. My guess is that it may be better to alter these equations so that fewer allowances can be banked so as to avoid increasing allowance availability to the point where the system fails and/or allowing entities to cooperate to manipulate the market.***

WAC 173-446-150(g).

This section currently reads as follows:

> (g) When its holding limit is exceeded, a registered entity must, within five business days after the limit is exceeded, divest itself of the excess emission allowances, transfer into its compliance account the number of allowances needed to cover its emissions for the current year or preceding years, or, in the case of consolidated entities, amend the distribution of the overall holding limit to become compliant. If a registered entity fails to comply with this requirement, ecology will withdraw the excess allowances and make them available for auction.

I have an issue only with the last sentence of this subsection. I think that Ecology should be given the discretion to either (1) make the withdrawn allowances available for auction as currently stated or (2) simply retire the withdrawn allowances, which might be helpful in a situation where availability of too many low-cost allowances is undermining the efficacy of the cap and invest program. I therefore suggest rewriting the last sentence of this subsection as follows (where underlined text is an insertion and ~~strikethrough~~ is a deletion relative to the original text):

> If a registered entity fails to comply with this requirement, ecology will withdraw the excess allowances and consider the current state of allowance price and availability. If availability is not too high and prices are not too low, ecology will make ~~them~~ the withdrawn allowances available for auction. If availability is too high and/or prices are too low, ecology will retire the withdrawn allowances.

WAC 173-446-210(2), Table 210-1.

Although they are not too far off, I note that the total covered emissions numbers in Table 210-1 do not correspond exactly to a 7% decrease per year. Please correct these numbers and/or explain how you came to these numbers.

WAC 173-446-020 and -250(3).

Please explain how the voluntary renewable electricity reserve account (VRERA, which is defined in WAC 173-446-020 and is held by Ecology) is supposed to work.

I understand from WAC 173-446-230(2) and (3) that an electric utility or power marketing administration supplying electricity derived from renewable sources to an EITE facility, where allowances have not been otherwise allocated for the electricity-related emissions that would have resulted but for the use of the renewable sources, will receive no cost allowances from VRERA equal to the forecasted electricity-related emissions for the facility using non-renewable sources. I can see that this provides an incentive to switch to renewable sources for electricity.

I understand from WAC 173-446-250(3) that allowances are removed and retired from VRERA when Ecology receives a report of electricity generation from renewable sources from a covered entity that meets certain criteria. I fail to see how this would provide an incentive for the covered entity to generate electricity from renewable sources. ***Please clarify whether such an incentive is created by WAC 173-446-250(3) and, if so, how? If no such incentive is created, please clarify the purpose of WAC 173-446-250(3).***

Another issue is raised by the equation for determining the amount of MT CO_2e that would be produced for given amounts of megawatt-hours (MWh) presented in WAC 173-446-250(3)(f). The equation provided contains the factor "$EF_{unspecified}$," a non-specific factor for determining the amount of GHG emissions resulting from electricity generation from an unspecified and unknowable source. Since different kinds of fossil fuel-driven electricity production produce different amounts of GHGs per unit of electricity produced, this equation does not accurately reflect the amount of GHGs avoided by a switch to renewable electricity production in particular cases. ***I believe that the covered entity seeking the retirement of allowances from VRERA should be asked to show the amount of GHG emissions produced prior to the switch to renewable electricity generation if it is possible by one of the more specific methods outlined in WAC 173-444-040. This could be used to determine the number of allowances from VRERA that would be retired. Only if it is not possible to specify the source prior to the switch should use of $EF_{unspecified}$ be allowed.***

WAC 173-446-300(3) and 173-446-300(3)(a).

These subsections specify how Ecology is to determine the correct number of allowances to offer at each auction under the CCA. The CCA contains the following language concerning this crucial determination:

> (2) The annual allowance budgets must be set to achieve the share of reductions by covered entities necessary to achieve the 2030, 2040, and 2050 statewide emissions limits established in RCW 70A.45.020, based on data reported to the department under chapter 70A.15 RCW or provided as required by this chapter. Annual allowance budgets must be set such that the use of offsets as compliance instruments, consistent with RCW 70A.65.170, does not prevent the achievement of the emissions limits established in RCW 70A.45.020. In so setting annual allowance budgets, the department must reduce the annual allowance budget relative to the limits in an amount equivalent to offset use, or in accordance with a similar methodology adopted by the department. . . .

RCW 70A.65.070(2). WAC 173-446-300(3) and (3)(a) address this issue by saying that "ecology shall submit the percentage of current and prior vintage allowances ecology considers appropriate after considering the allowances in the marketplace due to the marketing of no cost allowances issued to EITE facilities, electric utilities, and natural gas utilities" and "[e]cology shall offer only such number of allowances at each auction as will enhance the likelihood of achieving the GHG emission reductions required in RCW 70A.45.020." ***In my view, this critical process should be defined and specified in more detail.***

I believe that consideration of factors beyond the addition of no cost allowances to the marketplace is warranted in setting the number of allowances to auction and that WAC 173-446-300 should state these factors clearly. These additional factors include, for example, allowances banked under WAC 173-446-150(2), which could be sold and would add to the number of available allowances at any time. This is not an abstract idea. Large numbers of such banked allowances are currently held by registered entities in the California cap and trade system, and one expert has opined that this situation threatens that system. *See, e.g., https://www.volts.wtf/p/volts-podcast-danny-cullenward-on?utm_source=podcastemail%2Csubstack&utm_medium=email&s=r#details.* Further, since offsets play a similar role to allowances in satisfying a compliance obligation, the number of registered offsets available should also be considered in determining the correct number of allowances to offer at auction as set forth in RCW 70A.65.170(2). Thus, if only addition of no cost allowances to the marketplace is considered, Ecology may drastically underestimate the number of available compliance instruments. ***And if too many allowances are offered at auction, allowance prices will be lower, the money available for the investments envisioned by***

the CCA will be lower, and the number of allowances that registered entities can afford to buy will likely be higher. All of these factors make it less likely that the CCA will bring about the changes it envisions. Therefore, I ask Ecology to amend WAC 173-446-300(3) to clearly address the issues raised above, as well as any other issues that Ecology may be aware of that could affect what the correct number of allowances to offer at auction actually is.

WAC 173-446-310(1).

Since ecology is required by this rule to give notice to the EJC and the public of a number of details concerning upcoming auctions of allowances, it would make sense for the rule to give the EJC and the public the right and opportunity to make comments on these disclosures. ***I believe that WAC 173-446-310 should be amended to specify that the EJC and/or members of the public have a right and an opportunity to comment on crucial aspects of an upcoming auction such as, e.g., the number of allowances being offered at auction, the auction floor price, etc. Further, I believe that WAC 173-446-310 should be amended to specify that Ecology must provide substantive written responses to such comments in a public forum.***

WAC 173-446-340.

I believe that the emissions containment reserve trigger price (*hereinafter* ECRTP) is an important guard rail for limiting the number of marketplace allowances and keeping allowance prices from being too low. Thus, I believe that the ECRTP is essential for preventing the failure of the cap and invest system. ***I believe that Ecology should use this important tool rather than suspending it as it does in WAC 173-446-340.***

The CCA has given Ecology a mandate to set an ECRTP with the following language:

> To help ensure that the price of allowances remains sufficient to incentivize reductions in greenhouse gas emissions, ***the department must establish an emissions containment reserve and set an emissions containment reserve trigger price by rule***. The price must be set at a reasonable amount above the auction floor price . . .

RCW 70A.65.140(1)(***bold italics*** added).

The ECRTP plays a critical role in ensuring that the number of allowances in the marketplace is held in check and allowance prices are not too low and should not be suspended lightly since both of these things are important for the success of the program. The CCA specifies that Ecology "must automatically withhold allowances as needed" (RCW 70A.65.140(2)) if the ECRTP is met during an auction. Further, allowances "may only be withheld from an auction if the demand for allowances would result in an auction clearing price that is less than the emissions containment reserve trigger price" (RCW 70A.65.140(3)). Both of these portions of the CCA cannot be implemented if the ECRTP is suspended. Although Ecology may suspend the ECRTP if "a jurisdiction with which the department might enter into a linkage agreement has no emissions containment trigger price" (RCW 70A.65.140(1)), I am unaware that any party has made a proposal of linkage between the Washington cap and invest program and a similar program in another jurisdiction. Moreover, I believe it is premature to speculate that Washington's program might enter into a linkage agreement before it is even launched. ***Therefore, I believe that Ecology's suspension of the ECRTP is inconsistent with the spirit of the CCA,*** even though it may arguably not actually violate the CCA, since it is always possible that a linkage "might" happen at some underdetermined point in the future.

It does not make sense to me to weaken Washington's cap and invest program by suspending the ECRTP before the program is even launched. I believe that the Washington cap and invest program is a big experiment: we don't now know how things will play out. It may turn out that the ECRTP is critical to the success of the program. Further, if Washington has a successful program with its ECRTP in place, it is possible that potential linkage partners may want to adopt an ECRTP (if they don't already have one), rather than require Washington to suspend its ECRTP. We just don't know. I think it would be foolish to start a race to the bottom at this early stage. ***Thus, I strongly support setting the ECRTP at a reasonable level rather than suspending it.***

Respectfully submitted,

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