Public Comments on Cap-and-Invest Linkage

Public Engagement Period:
January 31 – May 15, 2023

Prepared by Cascadia Consulting Group, Inc. for the Washington State Department of Ecology

June 14, 2023

DEPARTMENT OF ECOLOGY
State of Washington

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Survey Comments

There were 11 completed survey responses, provided below.

REGINALD XIE, NO ORGANIZATION PROVIDED.

1. **Your name**: Reginald Xie
2. **Email address**: not included in comment summary document.
3. **Organization or entity you represent (optional):** Respondent skipped this question.
4. **Type of organization/entity (optional):** Business / Industry and Community group
5. **What thoughts or comments do you have about how linking may impact you or your community?** Linking the carbon markets will benefit our community greatly in that it reduces the inefficiency in the market, and has less double taxing effect to the market and saves our community members money in paying for something that has already accounted for carbon.
6. **What input would you like to share to inform whether Ecology pursues linking carbon markets with California and Québec?** Linking the carbon market brings more liquidity, makes the market less likely for manipulation, better efficiency in achieving the overall carbon goal, and reduces the opportunity cost for the residence, governments (the amount of subsidies needed) for each of the regions
7. **What do you think Ecology should consider when evaluating this criteria? In addition to looking at how California and Québec spend cap-and-trade revenues, with other types of program benefits should Ecology include in our analysis?** Respondent skipped this question.
8. **What are your thoughts or comments on how linking may affect highly impacted communities, which includes communities on Tribal lands? What potential negative effects should Ecology include in our analysis?** Respondent skipped this question.
9. **What are your thoughts or comments on how linking may affect highly impacted communities, which includes communities on Tribal lands?** Respondent skipped this question.
10. **What are your suggestions for how to reduce potential negative effects of linking on highly impacted communities?** Respondent skipped this question.
11. **What do you think Ecology should consider when evaluating this criteria?** Respondent skipped this question.
12. **Do you have recommended informational resources (reports, websites, research studies, etc.) that could inform our analysis of this criteria? Please provide links to the resources you mentioned or upload them into this folder.** Respondent skipped this question.

13. **What do you think Ecology should consider when evaluating this criteria?** Respondent skipped this question.
14. **Do you have recommended informational resources (reports, websites, research studies, etc.) that could inform our analysis of this criteria? Please provide links to the resources you mentioned or upload them into this folder.** Respondent skipped this question.
15. **What do you think Ecology should consider when evaluating this criteria?** Respondent skipped this question.
16. **Do you have recommended informational resources (reports, websites, research studies, etc.) that could inform our analysis of this criteria? Please provide links to the resources you mentioned or upload them into this folder.** Respondent skipped this question.
17. **Do you have recommendations of organizations or individuals Ecology should talk to about cap-and-invest linkage?** Respondent skipped this question.
18. **What information and resources would you like Ecology to provide about linkage?** Respondent skipped this question.
19. **Do you have other input you would like to share?** Respondent skipped this question.

RUSSELL MAIER, CITIZEN CLIMATE LOBBY YAKIMA CHAPTER

1. **Your name**: Russell Maier
2. **Email address**: not included in comment summary document.
3. **Organization or entity you represent (optional):** Citizen Climate Lobby Yakima Chapter
4. **Type of organization/entity (optional):** Community group
5. **What thoughts or comments do you have about how linking may impact you or your community?** Our group thinks that is important to have uniformity and linkage provides some of that uniformity yet adds to the bureaucracy.
6. **What input would you like to share to inform whether Ecology pursues linking carbon markets with California and Québec?** Cap and trade is a less effective method of decreasing carbon emissions than a price on carbon as British Columbia has done. Cap and trade works by requiring bureaucracy to implement and run, and it creates price volatility that is difficult for businesses. A carbon tax is far simpler, with less bureaucracy, lower costs, and more predictability.
7. **What do you think Ecology should consider when evaluating this criteria? In addition to looking at how California and Québec spend cap-and-trade revenues, with other types of program benefits should Ecology include in our analysis?** We think this should be a direct rebate to vulnerable populations. This simplifies the process, removes overhead from groups competing for funds, and allows the vulnerable populations to lessen their expense for carbon containing products including food, shelter, and transportation.

8. **What are your thoughts or comments on how linking may affect highly impacted communities, which includes communities on Tribal lands? What potential negative effects should Ecology include in our analysis?** Cap and Trade has allowed polluters to continue polluting near marginalized populations. It has not directly reduced pollution.
9. **What are your thoughts or comments on how linking may affect highly impacted communities, which includes communities on Tribal lands?** We think the speed of linkage will be slow to help marginalized communities especially if the price on carbon is set too low.
10. **What are your suggestions for how to reduce potential negative effects of linking on highly impacted communities?** We do not support Cap and Trade due the market volatility and unpredictability for business as well as the lack of fiscal benefit for marginalized populations.
11. **What do you think Ecology should consider when evaluating this criteria?** A) Do current polluters actually decrease their emissions. B) Do marginalized populations receive measurable benefit including increased financial support C) Is the price realistic
12. **Do you have recommended informational resources (reports, websites, research studies, etc.) that could inform our analysis of this criteria? Please provide links to the resources you mentioned or upload them into this folder.** Respondent skipped this question.
13. **What do you think Ecology should consider when evaluating this criteria?** Adjusting allowances points to the bureaucratic complexity of cap and trade and the uncertainty for businesses. A set price on carbon would be simpler to implement and monitor.
14. **Do you have recommended informational resources (reports, websites, research studies, etc.) that could inform our analysis of this criteria? Please provide links to the resources you mentioned or upload them into this folder**. Respondent skipped this question.
15. **What do you think Ecology should consider when evaluating this criteria?** As noted earlier, having a larger market would make it simpler for businesses which is a benefit.
16. **Do you have recommended informational resources (reports, websites, research studies, etc.) that could inform our analysis of this criteria? Please provide links to the resources you mentioned or upload them into this folder**. Respondent skipped this question.
17. **Do you have recommendations of organizations or individuals Ecology should talk to about cap-and-invest linkage?** We would recommend speaking with CCL madeleine@citizensclimate.org
18. **What information and resources would you like Ecology to provide about linkage?** Respondent skipped this question.
19. **Do you have other input you would like to share?** Respondent skipped this question.

MARK HILLINGER, GEN IV INVESTMENTS LLC

1. **Your name**: Mark Hillinger
2. **Email address**: not included in comment summary document.
3. **Organization or entity you represent (optional):** Gen IV Investments LLC
4. **Type of organization/entity (optional):** Business / industry
5. **What thoughts or comments do you have about how linking may impact you or your community?** We support linkage for the reasons listed below.
6. **What input would you like to share to inform whether Ecology pursues linking carbon markets with California and Québec?** Respondent skipped this question.
7. **What do you think Ecology should consider when evaluating this criteria? In addition to looking at how California and Québec spend cap-and-trade revenues, with other types of program benefits should Ecology include in our analysis?** Respondent skipped this question.
8. **What are your thoughts or comments on how linking may affect highly impacted communities, which includes communities on Tribal lands? What potential negative effects should Ecology include in our analysis?** ECY should link to California/Quebec ("WCI Program") because the WCI program has been designed with highly impacted communities in mind. CA AB-32 [2005-2006], which established the Cap & Trade Program, was launched with a focus on Environmental Justice Communities. To wit, AB-32: Established an Environmental Justice Advisory Committee, "comprised of representatives from communities in the state with the most significant exposure to air pollution, including, but not limited to, communities with minority populations or low-income populations, or both" to advise on California's Scoping Plans and other matters. SOURCE: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=200520060AB32 CA subsequently doubled-down on this commitment via CA SB-32 [2015-2016], which contains many provisions directed at Environmental Justice and Disadvantaged Communities. CARB committed to… "…continuing to reduce greenhouse gas emissions is critical for the protection of all areas of the state, but especially for the state's most disadvantaged communities, as those communities are affected first, and, most frequently, by the adverse impacts of climate change, including an increased frequency of extreme weather events, such as drought, heat, and flooding. The state's most disadvantaged communities also are disproportionately impacted by the deleterious effects of climate change on public health" SOURCE: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB32 California also required CARB to commit to achieving: "…the state's more stringent greenhouse gas emission reductions in a manner that benefits the state's most disadvantaged communities and is transparent and accountable to the public and the Legislature." SOURCE: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB32 When California extended the Cap and Trade Program via CA AB-398 [2017-2018], the extended program included several innovative provisions to minimize impacts on highly

impacted communities. The Compliance Offsets Protocol Task Force provides guidance to CARB in “approving new offset protocols for a market-based compliance mechanism for the purposes of increasing offset projects with direct environmental benefits in the state while prioritizing disadvantaged communities, Native American or tribal lands, and rural and agricultural regions”. Members must include Tribal representatives, Environmental Justice advocates, Labor and Workforce representative, Environmental advocates and Conservation advocates among others. SOURCE: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180AB398 The California Workforce Development Board, reports on the: “need for increased education, career technical education, job training, and workforce development resources or capacity to help industry, workers, and communities transition to economic and labor-market changes related to statewide greenhouse gas emissions reduction goals”. SOURCE: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180AB398 AB-398 addresses key items relating to highly impacted communities including: “Developing job training programs to assist specific populations, such as at-risk youth, displaced workers, veterans, the formerly incarcerated, and others facing barriers to employment, [creating] Opportunities for community-based organizations to partner with local workforce agencies to improve the labor-market outcomes of targeted disadvantaged populations, and targeting workforce development programs and activities in disadvantaged communities, and communities that are located near entities regulated by [CARB]”. SOURCE: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180AB398 There have also been empirical studies extent to which emissions are reduced in Environmental Justice Communities. Most notable is the study by Professor Danae Hernandez-Cortes (2023), which concludes that emissions in Environmental Justice Communities were lowered more than in the state writ large because of Cap and Trade. https://www.sciencedirect.com/science/article/pii/S0047272722001888

9. **What are your thoughts or comments on how linking may affect highly impacted communities, which includes communities on Tribal lands?** SEE NUMBER 8 ABOVE

10. **What are your suggestions for how to reduce potential negative effects of linking on highly impacted communities?** One critical way to reduce potential negative effects of linkage is to ensure that WA is linking to a program with rigorous program oversight in place, especially as regards highly impacted communities. “There is no evidence that the Cap-and-Trade Program has exacerbated local air pollution in environmental justice communities”. SOURCE: https://ww2.arb.ca.gov/resources/documents/faq-cap-and-trade-program The WCI Program has been created with the requirement to evaluate their success reducing emissions in highly impacted communities. To wit: “facilities subject to the Cap-and-Trade Program have reduced emissions of co-pollutants, with HDVs showing a clearer downward trend when compared to stationary sources. These emission reductions have major health benefits, including a reduction in premature pollution-related deaths” SOURCE: https://oehha.ca.gov/media/downloads/environmental-justice/impactsofghgpoliciesreport020322.pdf “The greatest beneficiaries of reduced emissions from both HDVs and facilities subject to the Cap-and-Trade Program have been in communities of color and in disadvantaged communities in California, as identified

by CalEnviroScreen (CES). This has reduced the emission gap between communities with high and low CES scores" SOURCE: https://oehha.ca.gov/media/downloads/environmental-justice/impactsofghgpoliciesreport020322.pdf

11. **What do you think Ecology should consider when evaluating this criteria?** SEE NUMBER 10 ABOVE

12. **Do you have recommended informational resources (reports, websites, research studies, etc.) that could inform our analysis of this criteria? Please provide links to the resources you mentioned or upload them into this folder.** LINKS PROVIDED IN-LINE ABOVE

13. **What do you think Ecology should consider when evaluating this criteria?** Washington should consider the extent to which the state it is linking to aligns its goals with Washington's. Both CA and WA have a 100% 2045 Clean Energy Target and both have climate neutrality targets. Washington should not assume that the existence of "banked" allowances in CA is the result lower stringency. In fact, which CARB's view is that the market is not oversupplied. "It is likely that the existing bank of 310 million allowances will be needed over the early part of this decade and will be exhausted by the end of the decade." Source: https://ww2.arb.ca.gov/sites/default/files/2022-12/2022-sp_1.pdf Moreover, CARB has committed to making changes to allowance supply as part of their routine review of the program. CARB will report back to the Legislature by the end of 2023 on the status of the allowance supply with any suggestions on legislative changes to ensure the number of allowances is appropriate to help the state achieve its 2030 target of at least 40% below 1990 levels. As part of that status update, CARB will also provide information on any potential program changes that may be needed to allowance supply to help achieve an accelerated target for 2030 identified in this Scoping Plan as necessary to achieve carbon neutrality no later than 2045. Source: https://ww2.arb.ca.gov/sites/default/files/2022-12/2022-sp_1.pdf Washington should consider the extent to which CARB has committed to routine program oversight in order to ensure statutory goals are achieved; this includes the establishment of the Independent Emissions Market Advisory Committee, the Compliance Offsets Protocol Task Force and the California Workforce Development Board and oversight from the Legislative Analyst Office in AB-398 (2017). None of these features exist in Washington's program. Source: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180AB398 Washington should consider the extent to which CARB is required to review the program for technological feasibility on a routine basis. "The state board shall update its plan for achieving the maximum technologically feasible and cost-effective reductions of greenhouse gas emissions at least once every five years." Source: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=200520060AB32

14. **Do you have recommended informational resources (reports, websites, research studies, etc.) that could inform our analysis of this criteria? Please provide links to the resources you mentioned or upload them into this folder.** LINKS PROVIDED IN-LINE ABOVE

15. **What do you think Ecology should consider when evaluating this criteria?** Washington should consider the extent to which CARB is required to review the program

for cost-effectiveness on a routine basis. "The state board shall update its plan for achieving the maximum technologically feasible and cost-effective reductions of greenhouse gas emissions at least once every five years." Source: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=200520060AB32 Washington should consider the extent to which CA has included a commitment to cost-effectiveness and technologically feasibility "It is the intent of the Legislature that the State Air Resources Board design emissions reduction measures to meet the statewide emissions limits for greenhouse gases established pursuant to this division in a manner that minimizes costs and maximizes benefits for California's economy, improves and modernizes California's energy infrastructure and maintains electric system reliability, maximizes additional environmental and economic co-benefits for California, and complements the state's efforts to improve air quality." Source: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=200520060AB32 "In adopting rules and regulations to achieve the maximum technologically feasible and cost-effective greenhouse gas emissions reductions authorized by this division, the state board shall ensure that statewide greenhouse gas emissions are reduced to at least 40 percent below the statewide greenhouse gas emissions limit no later than December 31, 2030." Source: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB32 Washington should consider the extent to which it is linking to a jurisdiction with a lower price than CA. Washington should consider the extent to which benefits accrue from linkage. For example, one study (Doda & Taschini, 2016) suggests that: "… linking provides opportunities to improve the administration and governance of linked permit markets. Insofar as linking leads to the alignment of the administration and design of markets, it streamlines the compliance process and can lead to reduced administrative costs for businesses operating in those jurisdictions. Moreover, the benefits of linking can have ramifications that go beyond the geographical jurisdiction of the linking partners. Indeed, linking can lead to a leveling of the […] playing field and to an improved support of global cooperation for tackling climate change" SOURCE: https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2016/08/working-paper-208-doda-taschini-dec2016-1.pdf Another study (Mehling, Metcalf & Stavins, 2017) suggests that linking jurisdictions can increase the efficiency of mitigation. SOURCE: https://scholar.harvard.edu/files/stavins/files/mehling-metcalf-stavins_linking_climate_policies_to_advance_global_mitigation_002.pdf

16. **Do you have recommended informational resources (reports, websites, research studies, etc.) that could inform our analysis of this criteria? Please provide links to the resources you mentioned or upload them into this folder.** LINKS PROVIDED IN-LINE ABOVE

17. **Do you have recommendations of organizations or individuals Ecology should talk to about cap-and-invest linkage?** ECY should engage with businesses and covered entities who will bear the cost of the Cap and Invest Program

18. **What information and resources would you like Ecology to provide about linkage?** Respondent skipped this question.

19. **Do you have other input you would like to share?** Respondent skipped this question.

SHAWN BOWEN, REC SILICON

1. **Your name**: Shawn Bowen
2. **Email address**: not included in comment summary document.
3. **Organization or entity you represent (optional):** REC Silicon
4. **Type of organization/entity (optional):** Business / industry
5. **What thoughts or comments do you have about how linking may impact you or your community?** Linking appears to be a bad idea. The credits for Washington are already severely limited and by linking, we may have others consuming these credits that are out of state.
6. **What input would you like to share to inform whether Ecology pursues linking carbon markets with California and Québec?** This would not be wise to link our process with these two systems.
7. **What do you think Ecology should consider when evaluating this criteria?** In addition to looking at how California and Québec spend cap-and-trade revenues, with other types of program benefits should Ecology include in our analysis? Ecology should look at the impacts to Washington State citizens. With citizens struggling to buy food and pay rent, they now have to deal with fuel prices that are significantly higher than those in the rest of the country. This is directly related to the credits purchased by fuel companies and would only be worse if combined with other states/countries.
8. **What are your thoughts or comments on how linking may affect highly impacted communities, which includes communities on Tribal lands? What potential negative effects should Ecology include in our analysis?** Highly impacted communities will suffer similar adverse effects as Washington citizens.
9. **What are your thoughts or comments on how linking may affect highly impacted communities, which includes communities on Tribal lands?** It will likely raise fuel and other costs for these communities.
10. **What are your suggestions for how to reduce potential negative effects of linking on highly impacted communities?** Not linking would be the best solution.
11. **What do you think Ecology should consider when evaluating this criteria?** Evaluate the impacts of everyday citizens and how the higher costs impact their lives.
12. **Do you have recommended informational resources (reports, websites, research studies, etc.) that could inform our analysis of this criteria? Please provide links to the resources you mentioned or upload them into this folder.** Respondent skipped this question.
13. **What do you think Ecology should consider when evaluating this criteria?** Ecology would have to guarantee that Washington credits do not leave the state and that Washington credits do not cost more than those from other states.
14. **Do you have recommended informational resources (reports, websites, research studies, etc.) that could inform our analysis of this criteria? Please provide links to**

the resources you mentioned or upload them into this folder. Respondent skipped this question.

15. **What do you think Ecology should consider when evaluating this criteria?** Ecology would have to guarantee that prices in the linked system are lower than those experienced in the current system. Price floors would need to be lowered as would price caps on credit prices.
16. **Do you have recommended informational resources (reports, websites, research studies, etc.) that could inform our analysis of this criteria? Please provide links to the resources you mentioned or upload them into this folder.** Respondent skipped this question.
17. **Do you have recommendations of organizations or individuals Ecology should talk to about cap-and-invest linkage?** Having discussions with community members throughout the state would be extremely helpful.
18. **What information and resources would you like Ecology to provide about linkage?** They would need to show how costs would be guaranteed lower for state citizens from combining systems.
19. **Do you have other input you would like to share?** Its no secret that businesses and citizens are fleeing the state of California in droves. Washington needs to avoid this situation here at home at all costs. Joining California programs will likely only push their problems onto Washington citizens and business owners, which will result in an exodus from our state.

THOMAS L CROM, EUREKA CONSULTING INC

1. **Your name:** Thomas L Crom
2. **Email address:** not included in comment summary document.
3. **Organization or entity you represent (optional):** Eureka Consulting Inc
4. **Type of organization/entity (optional):** Business / industry
5. **What thoughts or comments do you have about how linking may impact you or your community?** postive-will provide more information negative-the needs of Calif and/or Quebec might not align with Washington
6. **What input would you like to share to inform whether Ecology pursues linking carbon markets with California and Québec?** care must be taken not to have carbon prices for Washington be overwhelmed by Calif or Quebec I would like to see Washington use funds to pay for project located in the State of Washington or alternatively have those projects get priority
7. **What do you think Ecology should consider when evaluating this criteria?** In addition to looking at how California and Québec spend cap-and-trade revenues, with other types of program benefits should Ecology include in our analysis? 1) projects located in Washington 2) maximize carbon reduction benefits 3) maximize other benefits in WA, such employment in WA

8. **What are your thoughts or comments on how linking may affect highly impacted communities, which includes communities on Tribal lands? What potential negative effects should Ecology include in our analysis?** what other sources of funding is available to accomplish the project. ex- electrical changes to port is port is positive they also but as an existing commercial enterprise they have other financing sources. Whereas smaller communities or Tribal laor tribal communities do not have those same options. Tribes do have grants available from the Federal Government so those should be pursued first before using WA funds. WA should be prepared to offer tribes assistance to access those federal grants
9. **What are your thoughts or comments on how linking may affect highly impacted communities, which includes communities on Tribal lands?** a review is good but in reviewing that information there should be a compare & contrast with the objective being determing the best practices after considering the altneratives
10. **What are your suggestions for how to reduce potential negative effects of linking on highly impacted communities?** first determine the environment benefits with the objective of ranking the projects by that benefit this needs to be done first at the state level then broken down by geographical regions within the State. Each region should receive a minimum share. These objectives should have a 5 year timeframe to allow the greatest possible flexability for each fund allocations
11. **What do you think Ecology should consider when evaluating this criteria?** environmental benefits employment benefits sustainability of those benefits (is it a one time benefit or will those benefits occur annually) geographically benefits
12. **Do you have recommended informational resources (reports, websites, research studies, etc.) that could inform our analysis of this criteria? Please provide links to the resources you mentioned or upload them into this folder.** Respondent skipped this question.
13. **What do you think Ecology should consider when evaluating this criteria?** if unused allowances from California and Quebec are allowed in WA it minimizes the beneficial impact from WA laws just required. Thus those allowances should be discounted if they come other jurisdication. In addition if those credits were not generated by projects in WA or the US there should be further discounts
14. **Do you have recommended informational resources (reports, websites, research studies, etc.) that could inform our analysis of this criteria? Please provide links to the resources you mentioned or upload them into this folder.** Respondent skipped this question.
15. **What do you think Ecology should consider when evaluating this criteria?** the allowance and offset credits must use approved 3rd parties in making those estimates
16. **Do you have recommended informational resources (reports, websites, research studies, etc.) that could inform our analysis of this criteria? Please provide links to the resources you mentioned or upload them into this folder.** Respondent skipped this question.

17. **Do you have recommendations of organizations or individuals Ecology should talk to about cap-and-invest linkage?** Respondent skipped this question.
18. **What information and resources would you like Ecology to provide about linkage?** Respondent skipped this question.
19. **Do you have other input you would like to share?** Respondent skipped this question.

STEVE TAYLOR, COWLITZ PUBLIC UTILITY DISTRICT NO. 1

1. **Your name**: Steve Taylor
2. **Email address**: not included in comment summary document.
3. **Organization or entity you represent (optional)**: Cowlitz Public Utility District No. 1
4. **Type of organization/entity (optional)**: State or local government, Other: public electric power entity
5. **What thoughts or comments do you have about how linking may impact you or your community?** From the landscape we see at this early stage of CCA implementation, we believe linkage with CA, QB will provide greater liquidity for allowance procurement that will reduce price volatility and reduce the financial impacts to covered entities. Certainty of allowance availability and stable pricing that's closer to the floor rather than the ceiling will dampen the shocks to consumers and industries in Cowlitz County. While it is assumed that electric utilities' cost of compliance under the CCA will be mitigated through the issuance of no-cost allowances, linkage and its liquidity benefits will assist utility forecasting and reduce remaining costs that exceed the award of allowances.
6. **What input would you like to share to inform whether Ecology pursues linking carbon markets with California and Québec?** The purpose of the CCA is reduce GHG emissions using economy-wide market mechanisms that blunt the impact of carbon cap compliance and incentivize zero-emission investments. The decision to link should be made based upon the effectiveness of the relationship in reducing emissions along a feasible glidepath and aligning jurisdictional regulatory regimes. We do not believe the decision should be influenced by the State's gain or loss of allowance auction revenue that linkage may impact.
7. **What do you think Ecology should consider when evaluating this criteria? In addition to looking at how California and Québec spend cap-and-trade revenues, with other types of program benefits should Ecology include in our analysis?** Do CA and QB invest program benefits to low-income, vulnerable and overburdened communities? Yes or no. Consideration should be objective and high-level. Washington State should focus on the design and delivery of its own assistance programs rather than judge CA's and QB's investments.
8. **What are your thoughts or comments on how linking may affect highly impacted communities, which includes communities on Tribal lands? What potential negative effects should Ecology include in our analysis?** Highly impacted communities will benefit from a consistent regulatory regime deployed across regions that result in new

investments in emissions reducing technologies and adoption of zero or low-emissions vehicles.

9. **What are your thoughts or comments on how linking may affect highly impacted communities, which includes communities on Tribal lands?** Highly impacted communities will best be served by maintaining the focus of the review on the effectiveness of the CCA in reducing GHG emissions rather than the amount of revenue raised through the auctions.
10. **What are your suggestions for how to reduce potential negative effects of linking on highly impacted communities?** Respondent skipped this question.
11. **What do you think Ecology should consider when evaluating this criteria?** Respondent skipped this question.
12. **Do you have recommended informational resources (reports, websites, research studies, etc.) that could inform our analysis of this criteria? Please provide links to the resources you mentioned or upload them into this folder.** Respondent skipped this question.
13. **What do you think Ecology should consider when evaluating this criteria?** Ecology should consider the likelihood of the Cap and Invest program succeeding without driving industries out of the state if the current slope of the 2030 emissions reduction curve remains in place. The liquidity offered through access to CA's pre-2020 banked allowances can improve the feasibility of achieving emissions reduction goals on a regional basis, yet understanding that adjustments to WA's goals will likely have to be considered.
14. **Do you have recommended informational resources (reports, websites, research studies, etc.) that could inform our analysis of this criteria? Please provide links to the resources you mentioned or upload them into this folder.** Respondent skipped this question.
15. **What do you think Ecology should consider when evaluating this criteria?** The allowance settlement price from the first auction, the upcoming auction, and allowance contract futures compared to the Vivid economic analysis' projections. At this early stage of implementation, it would appear that linkage with California will reduced compliance costs for covered entities and dampen the shocks of the new program on consumers, business viability, and manufacturing.
16. **Do you have recommended informational resources (reports, websites, research studies, etc.) that could inform our analysis of this criteria? Please provide links to the resources you mentioned or upload them into this folder.** Respondent skipped this question.
17. **Do you have recommendations of organizations or individuals Ecology should talk to about cap-and-invest linkage?** Respondent skipped this question.
18. **What information and resources would you like Ecology to provide about linkage?** Respondent skipped this question.
19. **Do you have other input you would like to share?** Respondent skipped this question.

KIMBERLY SIMS, NO ORGANIZATION PROVIDED.

1. **Your name**: Kimberly Sims
2. **Email address**: not included in comment summary document.
3. **Organization or entity you represent (optional)**: Respondent skipped this question.
4. **Type of organization/entity (optional):** Individual
5. **What thoughts or comments do you have about how linking may impact you or your community?** not sure
6. **What input would you like to share to inform whether Ecology pursues linking carbon markets with California and Québec?** I think it makes a lot of sense to link to California and Quebec, especially if the price for carbon is the same for all.
7. **What do you think Ecology should consider when evaluating this criteria? In addition to looking at how California and Québec spend cap-and-trade revenues, with other types of program benefits should Ecology include in our analysis?** Respondent skipped this question.
8. **What are your thoughts or comments on how linking may affect highly impacted communities, which includes communities on Tribal lands? What potential negative effects should Ecology include in our analysis?** Revenues to support solar energy should be directed to vulnerable communities, including BIPOC and seniors living on fixed incomes. Conversion from fossil fuel to heat pumps should be directed to these populations as well.
9. **What are your thoughts or comments on how linking may affect highly impacted communities, which includes communities on Tribal lands?** Respondent skipped this question.
10. **What are your suggestions for how to reduce potential negative effects of linking on highly impacted communities?** Respondent skipped this question.
11. **What do you think Ecology should consider when evaluating this criteria?** Respondent skipped this question.
12. **Do you have recommended informational resources (reports, websites, research studies, etc.) that could inform our analysis of this criteria? Please provide links to the resources you mentioned or upload them into this folder.** Respondent skipped this question.
13. **What do you think Ecology should consider when evaluating this criteria?** Respondent skipped this question.
14. **Do you have recommended informational resources (reports, websites, research studies, etc.) that could inform our analysis of this criteria? Please provide links to the resources you mentioned or upload them into this folder.** Respondent skipped this question.
15. **What do you think Ecology should consider when evaluating this criteria?** Respondent skipped this question.

16. **Do you have recommended informational resources (reports, websites, research studies, etc.) that could inform our analysis of this criteria? Please provide links to the resources you mentioned or upload them into this folder.** Respondent skipped this question.
17. **Do you have recommendations of organizations or individuals Ecology should talk to about cap-and-invest linkage?** Respondent skipped this question.
18. **What information and resources would you like Ecology to provide about linkage?** Respondent skipped this question.
19. **Do you have other input you would like to share?** Respondent skipped this question.

THOMAS SMITHSON, NO ORGANIZATION PROVIDED

1. **Your name**: Thomas Smithson
2. **Email address**: not included in comment summary document.
3. **Organization or entity you represent (optional)**: Respondent skipped this question.
4. **Type of organization/entity (optional)**: Individual
5. **What thoughts or comments do you have about how linking may impact you or your community?** See my answer to question 6.
6. **What input would you like to share to inform whether Ecology pursues linking carbon markets with California and Québec?** I am very concerned about linking the Washington program with that of California, due to the reports of California's experience with "excess" allowances. In the 2021 Annual Report of the (California) Independent Emissions Market Advisory Committee (Feb. 2022), this oversight committee expresses concerns about allowance banking and carbon offsets. In short, these advisors state that California's progress to date in reducing GHG emissions has been the result of regulatory requirements ("industrial policies"), but excessive reliance upon the state's cap and trade program, which is allowing a buildup of excess allowances, may lead to the unintended consequence of undermining future emission reductions. WASHINGTON STATE MUST BE VERY CAREFUL IN NOT GETTING HOOKED INTO A MARKET WITH CALIFORNIA TWHICH ALSO UNDERMINES OUR PROGRESS TOWARDS GHG EMISSION REDUCTIONS.
7. **What do you think Ecology should consider when evaluating this criteria? In addition to looking at how California and Québec spend cap-and-trade revenues, with other types of program benefits should Ecology include in our analysis?** N/A
8. **What are your thoughts or comments on how linking may affect highly impacted communities, which includes communities on Tribal lands? What potential negative effects should Ecology include in our analysis?** N/A
9. **What are your thoughts or comments on how linking may affect highly impacted communities, which includes communities on Tribal lands?** N/A
10. **What are your suggestions for how to reduce potential negative effects of linking on highly impacted communities?** N/A

11. **What do you think Ecology should consider when evaluating this criteria?** N/A
12. **Do you have recommended informational resources (reports, websites, research studies, etc.) that could inform our analysis of this criteria? Please provide links to the resources you mentioned or upload them into this folder.** N/A
13. **What do you think Ecology should consider when evaluating this criteria?** N/A
14. **Do you have recommended informational resources (reports, websites, research studies, etc.) that could inform our analysis of this criteria? Please provide links to the resources you mentioned or upload them into this folder.** 2021 ANNUAL REPORT OF THE INDEPENDENT EMISSIONS MARKET ADVISORY COMMITTEE, found here: https://sbud.senate.ca.gov/sites/sbud.senate.ca.gov/files/2021-IEMAC-Annual-Report.pdf David Roberts podcast interview of Danny Cullenward (a member of the oversight committee referenced above) on "California's shaky climate plans", found here: https://www.volts.wtf/p/volts-podcast-danny-cullenward-on#details
15. **What do you think Ecology should consider when evaluating this criteria?** N/A
16. **Do you have recommended informational resources (reports, websites, research studies, etc.) that could inform our analysis of this criteria? Please provide links to the resources you mentioned or upload them into this folder.** N/A
17. **Do you have recommendations of organizations or individuals Ecology should talk to about cap-and-invest linkage?** Danny Cullenward @ https://www.ghgpolicy.org/
18. **What information and resources would you like Ecology to provide about linkage?** See my earlier comments of concern about California's excess allowances. Mr. Cullenward, an expert in this field and an advisor to the State of California on their cap and trade program, has spoken and written about this issue.
19. **Do you have other input you would like to share?** N/A

CHRISTOPHER BELLOVARY, NO ORGANIZATION PROVIDED

1. **Your name**: Christopher Bellovary
2. **Email address**: not included in comment summary document.
3. **Organization or entity you represent (optional):** Respondent skipped this question.
4. **Type of organization/entity (optional):** Individual
5. **What thoughts or comments do you have about how linking may impact you or your community?** Overall, I think that it would be a good idea. Slightly lower and more stable pricing for emissions credits would benefit the state's economy (which benefits everyone). As a more direct impact, electric utilities are one of the larger purchasers of emissions credits, so slightly lower/more stable pricing helps their customers in terms of lower electric bills. Also, anything that reduces GHG emissions is a benefit for all communities.
6. **What input would you like to share to inform whether Ecology pursues linking carbon markets with California and Québec?** The one concern that I have is how this

might impact investments into highly disadvantaged communities, under the HEAL Act. If it is cheaper to generate offset credits in California or Quebec, that could have an adverse impact on secondary benefits that would be realized in highly disadvantaged communities. (Of course, the opposite is also true - if it turned out to be cheaper to generate offset credits in Washington, that could increase those benefits.) I still believe linking the markets would be by far net positive and worth pursuing, but it would be good to quantify the likely range of that impact.

7. **What do you think Ecology should consider when evaluating this criteria? In addition to looking at how California and Québec spend cap-and-trade revenues, with other types of program benefits should Ecology include in our analysis?** Respondent skipped this question.

8. **What are your thoughts or comments on how linking may affect highly impacted communities, which includes communities on Tribal lands? What potential negative effects should Ecology include in our analysis?** Respondent skipped this question.

9. **What are your thoughts or comments on how linking may affect highly impacted communities, which includes communities on Tribal lands?** 1. Is there any reason to think that what occurred when California and Quebec linked their markets would be different in Washington? If so, for the better or worse? (Washington would seem to have more in common with California and Quebec than California and Quebec have with each other, so I cannot think of a reason that it might differ, but to avoid surprises or mitigate any adverse effects, it is still worth consideration.) 2. If there may be an adverse effect on ancillary benefits to highly impacted communities in Washington, the effect should be evaluated over a period of years, so that short-term, acute impacts don't overshadow longer-term chronic effects.

10. **What are your suggestions for how to reduce potential negative effects of linking on highly impacted communities?** Respondent skipped this question.

11. **What do you think Ecology should consider when evaluating this criteria?** Respondent skipped this question.

12. **Do you have recommended informational resources (reports, websites, research studies, etc.) that could inform our analysis of this criteria? Please provide links to the resources you mentioned or upload them into this folder.** Respondent skipped this question.

13. **What do you think Ecology should consider when evaluating this criteria?** Respondent skipped this question.

14. **Do you have recommended informational resources (reports, websites, research studies, etc.) that could inform our analysis of this criteria? Please provide links to the resources you mentioned or upload them into this folder.** Respondent skipped this question.

15. **What do you think Ecology should consider when evaluating this criteria?** Respondent skipped this question.

16. **Do you have recommended informational resources (reports, websites, research studies, etc.) that could inform our analysis of this criteria? Please provide links to the resources you mentioned or upload them into this folder.** Respondent skipped this question.
17. **Do you have recommendations of organizations or individuals Ecology should talk to about cap-and-invest linkage?** Respondent skipped this question.
18. **What information and resources would you like Ecology to provide about linkage?** Respondent skipped this question.
19. **Do you have other input you would like to share?** Respondent skipped this question.

MICHAEL CHAI, NO ORGANIZATION PROVIDED

1. **Your name**: Michael Chai
2. **Email address**: not included in comment summary document.
3. **Organization or entity you represent (optional):** Respondent skipped this question.
4. **Type of organization/entity (optional):** Respondent skipped this question.
5. **What thoughts or comments do you have about how linking may impact you or your community?** Producers of grain, hogs, aluminum and other commodities are able to trade freely between states without much friction. This allows Washington consumers to buy products at low costs, and our producers to export to capture additional profit. Currently the Washington Carbon price is $66, while California CCA is $30. By linking the two markets, it allows Washington to receive cheaper priced carbon allowances and benefit our consumers and residents.
6. **What input would you like to share to inform whether Ecology pursues linking carbon markets with California and Québec?** We are currently double charging Carbon on Washington residents. Electricity is exported from California to Washington state for 50% of the year, namely Q3 and Q4. By charging our residents carbon on top of California's Carbon price, we are double taxing our residents.
7. **What do you think Ecology should consider when evaluating this criteria? In addition to looking at how California and Québec spend cap-and-trade revenues, with other types of program benefits should Ecology include in our analysis?** Respondent skipped this question.
8. **What are your thoughts or comments on how linking may affect highly impacted communities, which includes communities on Tribal lands? What potential negative effects should Ecology include in our analysis?** Respondent skipped this question.
9. **What are your thoughts or comments on how linking may affect highly impacted communities, which includes communities on Tribal lands?** Respondent skipped this question.
10. **What are your suggestions for how to reduce potential negative effects of linking on highly impacted communities?** Respondent skipped this question.

11. **What do you think Ecology should consider when evaluating this criteria?** Respondent skipped this question.
12. **Do you have recommended informational resources (reports, websites, research studies, etc.) that could inform our analysis of this criteria? Please provide links to the resources you mentioned or upload them into this folder.** Respondent skipped this question.
13. **What do you think Ecology should consider when evaluating this criteria?** Respondent skipped this question.
14. **Do you have recommended informational resources (reports, websites, research studies, etc.) that could inform our analysis of this criteria? Please provide links to the resources you mentioned or upload them into this folder.** Respondent skipped this question.
15. **What do you think Ecology should consider when evaluating this criteria?** Respondent skipped this question.
16. **Do you have recommended informational resources (reports, websites, research studies, etc.) that could inform our analysis of this criteria? Please provide links to the resources you mentioned or upload them into this folder.** Respondent skipped this question.
17. **Do you have recommendations of organizations or individuals Ecology should talk to about cap-and-invest linkage?** Respondent skipped this question.
18. **What information and resources would you like Ecology to provide about linkage?** Respondent skipped this question.
19. **Do you have other input you would like to share?** Respondent skipped this question.

MICHAEL RUBY, NO ORGANIZATION PROVIDED.

1. **Your name**: Michael Ruby
2. **Email address**: not included in comment summary document.
3. **Organization or entity you represent (optional)** Respondent skipped this question.
4. **Type of organization/entity (optional)** Respondent skipped this question.
5. **What thoughts or comments do you have about how linking may impact you or your community?** Our purpose is to reduce GHG emissions in Washington state. Any linkage agreement must have that as its highest priority. Merely joining in with others to create a larger pool is not as high a priority or even a significant priority if it does not reduce the GHG emissions from Washington state.
6. **What input would you like to share to inform whether Ecology pursues linking carbon markets with California and Québec?** We really should wait at least one year before we begin negotiating with any other entity regarding linkage. We need to allow our program to mature, to grow to the point where we understand it and understand what the implications are for Washington of the program. Now is just too early to be bargaining

away any of the advantages that took so much work to create. The relatively high price of allowances in the first auction should tell us that something different is happening in Washington. We need to go through several more auctions to learn if this was a one-off or just what does all this imply about the Washington economy.

7. **What do you think Ecology should consider when evaluating this criteria? In addition to looking at how California and Québec spend cap-and-trade revenues, with other types of program benefits should Ecology include in our analysis?** Do the allowance auctions in the other entities provide us with any data that we can analyze to determine how using allowances instead of reducing emissions might impact communities near to the allowance purchaser's facilities and how the not-reduced emissions might impact those communities.
8. **What are your thoughts or comments on how linking may affect highly impacted communities, which includes communities on Tribal lands? What potential negative effects should Ecology include in our analysis?** Might linking reduce the revenues coming in to Washington from our auctions that will, in turn, reduce the funds we have to allocate to the tribal climate resiliency efforts.
9. **What are your thoughts or comments on how linking may affect highly impacted communities, which includes communities on Tribal lands?** It may affect the price that local sources will pay, which will change the decisions made by Washington sources.
10. **What are your suggestions for how to reduce potential negative effects of linking on highly impacted communities?** Know where those communities are located and how any change in the character of our auctions because of linking might ave a geographic impact. For example, might there be Washington sources located near such communities that might tend to use allowances rather than emission reductions if less expensive allowances are available from a linked auction.
11. **What do you think Ecology should consider when evaluating this criteria?** Only if linkage will result in higher prices for allowances used in Washington should Ecology be favorable to the linkage.
12. **Do you have recommended informational resources (reports, websites, research studies, etc.) that could inform our analysis of this criteria? Please provide links to the resources you mentioned or upload them into this folder.** Respondent skipped this question.
13. **What do you think Ecology should consider when evaluating this criteria?** This will require some very careful analysis. You will be best served by being totally transparent and giving the public plenty of opportunity to evaluate the data you are able to obtain and the approach you take to analysis.
14. **Do you have recommended informational resources (reports, websites, research studies, etc.) that could inform our analysis of this criteria? Please provide links to the resources you mentioned or upload them into this folder.** Respondent skipped this question.
15. **What do you think Ecology should consider when evaluating this criteria?** Is the direction of this criteria really in the best interest of Washington. Wouldn't lower prices

paid by sources mean they are more likely not to reduce emissions. Is that really a good thing. Don't we want them to have an economic nudge to see reducing emissions as their best choice. You also need to try to look at the long-term trend of prices in the auctions. Are the linked auctions prices escalating with time? We need sources to see that their future is with higher prices. If the linked auctions price movements are flat or only slightly increasing with time, that is not helpful to Washington.

16. **Do you have recommended informational resources (reports, websites, research studies, etc.) that could inform our analysis of this criteria? Please provide links to the resources you mentioned or upload them into this folder.** Respondent skipped this question.
17. **Do you have recommendations of organizations or individuals Ecology should talk to about cap-and-invest linkage?** Respondent skipped this question.
18. **What information and resources would you like Ecology to provide about linkage?** Be completely transparent about what you learn from analysis of the potentially linked entity auction histories.
19. **Do you have other input you would like to share?** Respondent skipped this question.

Listening Session Comments

During the listening sessions, attendees had four options for breakout rooms: breakout room 1 covered impacts to communities (criteria #1 and #2), breakout room 2 covered impacts on meeting greenhouse gas commitments (criteria #3), breakout room 3 covered impacts on cost of compliance (criteria #4), and breakout room 4 covered all criteria. All breakout rooms discussed the two overarching questions.

Listening Session #1 occurred on March 16, 2023, from 2pm – 5pm, with 87 attendees.

Listening Session #2 occurred on March 29, 2023, from 6pm to 9pm, with 12 attendees.

Listening Session #3 occurred on April 18, 2023, from 10am – 1pm with 81 attendees.

Listening Session #1 – March 16, 2023

Recording from Listening Session #1: **https://www.youtube.com/watch?v=Op-6hy2PEt8**

Breakout Room Comments:

- Overarching Question: What thoughts or comments do you have about how linking may impact you or your community?
    - Q: Interested in regulations across states - linkage is a start on consistency across western states
    - Customer rate impacts as primary concern; extreme rate pressure at the moment due to regulations; can linkage help with this?
    - Concern with causing costs where there is no achieved outcome
    - might open options for compliance if businesses can use allowances from CA/QC
    - community is customers who will pay for compliance, linking should be able to help covered entities comply more cost effectively. Customers provide jobs, so linking should eliminate competitiveness across jurisdictions so industry in WA is protected, if allowances in WA are more expensive than in neighboring states, then customers could move out of state
    - Since WA is just starting out what if CA needs all our allowances (opposite of unused allowances issue, essentially)
    - Is there a cap on CA/QC credits that can be used in other jurisdictions? this could be a price control
    - Controlling prices for businesses controls prices for consumers
    - Concerned about harmonization with CARB with regard to electric imports, overall harmonization of rules

  - Offsets may be a friction point, protocols must align with CARB and anticipates revisions to protocols even if we only keep the four protocols we have
  - Reduced costs of compliance also reduces potential emissions leakage
  - For overburdened communities, the percentage spent is in legislation, would there be an overall dilution of commitments through the linkage program
  - Could linking result in customers in Washington paying more due to demand for allowances rising out of state?
  - Could linkage/program flexibility control costs and ease the financial stress on Washington inhabitants? In general larger markets = more price stability
  - Many regulators are passing compliance cost down to consumers, if we linked, would that change in some way? Increase, decrease?
  - Linkage will involve adjustment both on the individual and community level, which will require communication and engagement so that everyone can be on board.
  - I Heard an example of Investors making up to 800% return if they Held through to 2050 (specific to WA auction)
- Overarching Question: What input would you like to share to inform whether Ecology pursues linking carbon markets with California and Québec?
  - Q: clarification and how unput will be used in this process
  - would like an opportunity for public engagement during the linkage negotiation process
  - More electric sector trainings generally but also with respect to linkage
  - Recommendation of a workgroup from industry experts, seconded
  - sometimes the difficulties in compliance per the regulation aren't clear until you hit the speedbump, so it would be helpful to have industry to guide ECY in development
  - Environmental defense fund submitted comment on roadmap to linkage during our rulemaking (CES)
  - Look at the price differential in QC before they linked and after, likely a similar size
  - Reiterating desire for ECY to engage the electric sector additionally, both on linkage and generally
  - Yes
  - Yes, provided we can ensure guard rails on some of the best elements of our legislation.
  - I think linkage helps ensure the long term viability of the program
  - Linkage will reduce compliance costs which may be more necessary later on as the caps get ratcheted down

    - Understanding that California and Quebec are a bit further along in their programs, as the allowances are reduced for the market, would California and Quebec reducing their allowances impact the Washington market?
    - kind of repeating myself, but even with auction purchase limits, in Washington 5 participants can bid on 50% of the allowances. this means the actions (or inactions) of a few players can cause wild swings in the price of credits. A larger market protects against that, and also ensures more participants can get allowances?
    - In the first Washington Auction, more participants didn't get allowances than did
- Criteria #1: Ensure that California and Québec have provisions to ensure their programs provide benefits to vulnerable populations and overburdened communities.
    - Have Quebec and CA programs improved air quality in communities?
    - look at both mobile and stationary sources when looking at whether emissions went down
    - if compliance costs go down, that is an economic benefit to communities
    - when looking at air quality, don't only look at regional level, but also air toxics (more local pollutants)
- Criteria #2: Ensure that linking would not have an overall negative effect on highly impacted communities in Washington, California, or Québec.
    - Comments on this subject combined with comments on criteria #1 above.
- Criteria #3: Ensure that linking markets would not impact Washington's ability to meet the emissions-reduction commitments set in state law.
    - Q: how will we will treat meeting the target when linked - collective bubble or different percentages by state
    - Q: Will balance be made up with carbon removals or additional reductions in non-covered sectors to meet targets in any one state if a target is not met?
    - Q: If linking were to lead to lower auction revenue, is that a part of the criteria?
    - CCA is designed to function through both the cap and the invest sides; would like the investments (and their impacts) side to be considered in criteria as well as cap
    - Q Could there be a functional WA cap in a linked scenario? Would like clarity on this issue.
    - Q: If ECY discovers significant benefits to linking but there are gaps in reductions, can ECY keep in mind additional regulations to address that gap; can imagine this scenario
- Criteria #4: Ensure that linking markets would reduce the cost of compliance for covered businesses.
    - Liquidity in the market is good for the program so linkage is a good idea
- Comments on All Criteria

  - Will broadening out the program mean that efforts in one state will be stretched to other and dilute the impact locally
  - Will this have any impact on the other climate laws Ecology is running like the low carbon fuels program?

- Discussion Summaries for each breakout room:
  - Concerns re consideration of regulations across states, their impacts, and associated benefits. Clarity of how public input would be used in this process in its various stages. Interest in the cap and how this would work across states. Concern about examining the impacts of linking on auction revenues and their possible associated benefits
  - Reduce prices for businesses benefit customers, protects economy, prevent emissions leakage; req for more engagement with electric sector (now and in linkage); rec for industry workgroup for guidance on technical aspects of regs; rec to look at QC market prices
  - Linkage is important to the program's sustainability and stability, especially as the cap decreases. Many participants have questions about the predicted impact of linking (especially on vulnerable communities). Concern about ensuring that Washington's own program is able to continue having its own unique strengths after linking markets. Purchasing and holding limits should be closely reviewed because of futures trading.

Listening Session #2 – March 29, 2023

Email **CCALinkage@ecy.wa.gov** to request recording.

Breakout Room Comments:

- Overarching Question: What thoughts or comments do you have about how linking may impact you or your community?
  - Agricultural wasn't listed, live in rural easter Washington, if you are in an urban area, you are in industrial agricultural zones, if agricultural areas aren't participating, we are not creating funds for our community. The apple producers are creating more waste and by products that need to be addressed. Will this industry be considered at some point in the future?
  - Reflection: that it would be nice to be able to celebrate when the program has helped ANY community - whether they're in Washington, California, or Quebec!
  - As a fuel distributor this was launched very poorly. I would be in favor in investigating linking with California.

    - There are still far too many questions unanswered. Our costs from refiners are going up daily for CAR. Diesel has almost reached $0.60 per gallon, Calif 10 year old program is under $0.40
    - Are there other states considering a similar linkage? If so, which ones and are they on similar timelines?
- Overarching Question: What input would you like to share to inform whether Ecology pursues linking carbon markets with California and Québec?
    - Fuel Marketer on the west coast, participated in cap and trade programs in california for 10 years, shocked that the WA program has already exceeded the cost of California's program, the cost of reporting and complying is significant, the amount of money made off of the first auction is enormous
    - Agreement from another participant to previous comment
- Comments on All Criteria
    - How is negative impact evaluated/measured
    - Ecology is currently trying to understand how to make these goals actionable, planning on looking at research on how air quality has changed under cap and trade programs, what are the relationships between cap and trade programs and air quality. What types of impacts should we be looking at, are there other things to look at, like the economic impact on communities, related to the cost of compliance to the program. Looking to the public to narrow the vision on how to evaluate this
    - Follow-up: as compared to what baselines & timelines of those baseline measurements?
    - The CCA wants us to look at the impacts of if we link vs if we do not link, comparing what we think things would look like if we remain separate and how things would look like if we link. If you have suggestions and baselines that should be considered, please share!
    - The economic impacts to vulnerable communities in California is a very important impact, to see if the cost of allowance will be pulled up in California if WA links
    - What's going on in California versus WA, to see what would have happened if we joined, not just in the future
    - On the 4th one, when it's the reduce the cost of compliance for covered businesses, is that WA specific? The CCA says "in WA" so it is WA specific

Listening Session #3 – April 18, 2023

Recording from Listening Session #3:
https://www.youtube.com/watch?v=Tvdw_xcjICQ

Breakout Room Comments:

- Overarching Question: What thoughts or comments do you have about how linking may impact you or your community?
    - Will auction revenues benefit communities? for example incentives for solar panels or heat pumps
    - a lot of time and work is needed to identify overburdened communities in WA. Issues with existing mapping tools. Concern about time needed for that process in relation to timing for linking
    - if linking reduces allowance prices, concerned about lower revenues for GHG reduction projects and what is needed to meet GHG reduction goals. Need as much $$ as we can get for clean energy transition
    - Concern that WA hasn't met GHG reduction goals in the past. Concern about missing goals in the future. Concern about capacity within overburdened communities to get needs addressed. Worried that reduced auction revenue would disproportionately impact overburdened communities.
    - For utilities, overburdened communities are different for electric and gas customers. Difficult to implement for utilities. Worry about impact of amount of allowance utilities need to purchase to costs to all customers, not just low-income customers.
    - Better coordination between CETA and cap-and-invest is needed to help utilities with implementation, especially around impacts to overburdened communities
    - Weigh impacts to overburdened communities more heavily than other criteria like cost of compliance
    - Trying to get a better understanding how linkage would impact public transit (and what public transit may need to do - any mechanism that helps facilitate transition)
    - Q: Are there certain sectors or industries that are exempted or not exempted in other jurisdictions that are different than WA. would if affect what industries get free allowances or are exempted?
    - Q: Does Ca and Que have a ceiling and floor on cost of allowances and how does it compare to WA?
    - Q: Has heard emphasis on importance of communities. Is this have a larger influence on decision?
    - Is Ecology thinking about the timing of linkage vs. the different compliance periods? If there's a possibility linkage could occur in the middle of a compliance period (but

not certainty at the start of the period), that seems like it has the potential to introduce uncertainty about the market fundamentals throughout that entire period

- Q: How will linking in the middle of the first compliance period at prices that are currently ~50% of what participants paid in the first auction work
- [*in response to xii and xiii*] Good question - utilities are given no cost allowances but have to consign them. Timing of linkage could impact rate payers in a substantial way.
- comment below- linkage should occur as soon as possible.
- Place more emphasis on the cost carried over to rate payers. Any cost savings from linking the markets will go straight to rate payers. Given magnitude of difference between costs of California and Washington, shows how important linking could be
- Had discussion with elected official in senate, asking for particular expenditures, difference between senate and house about how much revenue there will be going forward. We would like to spend more up front on mitigation, concerned about certainty of revenue sources, can we make strong plans on adaptation and mitigation. Make sure that ecology looks at predictably of revenue source from year to year
- Echoing Jeff, I'm concerned that allowance revenue will plummet and we'll have less effective mitigation spending in WA.
- Concern that California's rules and regulations will have an outsized influence on Washington's policy. Concerned that we're only going with California trained folks, which might dilute Washington program if linked. CCA is a better program than Cali, and concerned that linking will lower the power of CCA
- The independent advisory report has concern regarding overburdened communities, and suggests changes to the California rules for air quality, and the recommendations in the first chapter, in which they recommend lowering the amount of allowances available. It would be chaotic to link with California before these changes occur, will Ecology act in the interest of businesses and consumers in Washington and try to change Cali's program before linking for the better
- Regarding reaching the target as set by Ecology, if California will give 25% of credits in the auction, how will this affect Washington market and goals

- Overarching Question: What input would you like to share to inform whether Ecology pursues linking carbon markets with California and Québec?
  - Western Power Trading Forum work paper on electricity markets. Syncing up electricity market operations between WA and CA would be beneficial.
  - Suggested resource: Legislative Analysts Office report on CA cap and trade model
  - Why link to a program that would cut auction revenue and add additional allowances that could impact meeting GHG goals?
  - Don't want businesses in CA and QC to compete with WA if allowance prices are different across three markets

- Suggested resource: Initiative for Sustainable Energy Policy Washington State's Cap-And-Invest Carbon Trading Program: Does It Correct California's Design Flaws? by Patricia A. Hemsworth https://sais-isep.org/washington-states-cap-and-invest-carbon-trading-program-does-it-correct-californias-design-flaws/
- legal authority of CARB after 2030. Impact of that on stability of a linked market.
- Impacts of calls for changes to CA program and how that would impact linking and the market
- Interested in seeing what criterion going to use and what metrics going to use to measure criterion (numbers for metrics/number of allowances) - want to see this evaluation to see if additions to or modification to criterion are necessary - within criterion wants to know more about metrics/ways to measure whether happening or not
- by linking with market with lower price - shifting GHG reductions into another state than our state (need explicit statements from ECY about where reductions are occurring and costs associated with those reductions)
- Linkage may provide more liquidity and reduce volatility in the linked programs. Fair carbon prices and low volatility is beneficial for all market participants while maintaining environmental integrity of the program.
- Pros for linkage: Linkage should equalize marginal costs, ensure liquidity competitiveness and avoid unfair impacts on certain industries.
- During develop of leg, there were thoughts on where electric industry fit into cap and trade, being able to link, electric sector needed to be brought on board. Ensure liquidity and achieve emissions reduction affordably. Also had uncertainty about amount of no cost allowances will be. Will there be emissions from electric sector that will not be covered and have to be picked up through auctions and other kinds of trading. being able to do in an affordable, effective manner. Electricity already has other methods of emission compliance. Linkage would be desirable to allow great pool of allowance to draw from.
- Cons for linkage that need to be addressed are stringency differences, integrity variances and varying treatments of industrial sectors.
- Really believes linkage needs to go through. Has been tracking status and sees efforts are starting to take off. If Ecology intends to not do linkage to think about issues.
- If linking brings down price of allowance and impact of money for program, we would suggest the decisions made around linkage are tied to how to affordable and feasibly reduce GHG emissions. This should be guiding principles (reduce GHG) and less money brought through program. Prices may go higher and there may be preverse incentives and less liquidity of allowances
- California's market is 5x Washington's, there is a question of whether Ecology has the ability to do the regulation during linking, is Ecology going to audit itself to perform this regulatory process before we begin linking

  - Ecology will go through its process and decide whether or not it will link. It is an ecology decision not legislative? A: It is Ecology's decision to pursue linkage, but it depends on if Cali or Quebec object to it. Q: So on the Washington side, there is no further input from the legislature?
  - Canada has a mix of frameworks, federally and provincially, and Quebec may choose to go with federal program, BC also has a program, that would make sense geographically to link with. And then Canada is going through a federal offset program, so when you link, you have a changing framework with those you are linking with, there is a danger that we are stuck with something that we don't really want or we can benefit.
  - How will power imports from Cali be treated when calculating allowances?
  - The greenhouse gas rules from Ecology reporting rule has a provision in it that states that once linkage occurs, imported energy will be seen as not having emissions Imported electricity from linked jurisdiction citation - Ecology GHG Reporting Rules - WAC 173-441-124 (2)(g)(ii)
  - Again for the notes, here's the Independent Emissions Market Advisory Committee's 2022 report: https://calepa.ca.gov/wp-content/uploads/sites/6/2023/02/2022-ANNUAL-REPORT-OF-THE-INDEPENDENT-EMISSIONS-MARKET-ADVISORY-COMMITTEE-2.pdf?emrc=6afe11

- Criteria #1: Ensure that California and Québec have provisions to ensure their programs provide benefits to vulnerable populations and overburdened communities.
  - Is the criteria related to the policies they have or the impacts on the ground? How do the metrics compare between CA, QC, and WA?
  - Look at amount of $$ spent in CA and QC in the past on overburdened communities
  - Way to compare: Does CA and QC have same % of $$ required to spend on overburdened communities as WA?
  - How to measure effectiveness of programs that are intended to provide benefits? Look at metrics used for electricity sector (customer benefit indicators is termed use in WA). Is there a similar set of metrics in CA?
  - How to adjust/localize metrics across different jurisdictions? WA communities need different things than CA and QC. How to measure impacts when communities are unique and the communities change over time?
- Criteria #2: Ensure that linking would not have an overall negative effect on highly impacted communities in Washington, California, or Québec.
  - Similar issue as criteria #1: how do you measure this? How granular of a level do you go to?
  - impacts of having more offset projects outside of WA. Fewer projects capturing carbon in communities in WA.

  - if WA doesn't link, how would that impact the economy and the cap-and-invest program? for example, companies moving out of the state because of high allowance prices. Political pressure to repeal the program.

- Criteria #3: Ensure that linking markets would not impact Washington's ability to meet the emissions-reduction commitments set in state law.
  - Question: are WA reduction commitments in CCA - are they are on same timeline as Quebec and CA commitments to GHG reductions (if not, would that have an impact if timelines/commitments are different)
  - Question: What control over operation of market (auction ops/floors/ceilings) would change if ECY linked to other markets? Would ECY give out gain/lose? What would need to change/might change if link? Wants to know what authorities ECY would lose if linking as relates to changes to auction, etc. Wants explicit writing on that front
  - Question: Will there be any governing authority/committee/panel to deal with conflicts that arise (i.e. if WA loses operation of market) - any way to deal with operational differences or conflicts?
  - What is the surplus impact on goals set up by CCA from linkage program? Need clarity on metrics/how going to judge them
  - If other market decide to change their allowance programs (not direct auction event), is there an exit from linkage? Is there some modification being thought of to include in agreement to cover this
- Criteria #4: Ensure that linking markets would reduce the cost of compliance for covered businesses.
  - Review previous comments above
  - Spikes in prices when first going to market. Floor was same as CA. Hope for prices to come down as people understand program. Question is how long will it take for prices to go down?
  - Cost is paramount. This policy is drastically affecting all industries subject to it, despite many people not knowing it yet. Industries will be blamed for higher prices instead of where the real blame lies...the legislature and governor.
  - where "Green Banks" might fit in? Green Banks meaning low or zero interest loans for emissions-reduction projects. These GHGs are costing consumers already, with the effects of climate change
  - Q: Are the target reductions and timelines the same or similar between the WA/CA/Que and if not can where they are in the process affect the cost of the auction credits? Ex. If CA needs more credits because they are further along and it is being harder to meet those targets, could that cause a run up in the prices?
  - Shared linkage is a main driver in costs going down. Encourage of linkage to occur regardless of compliance period - sooner the better.

    - Offsets in WA vs Ca. CA they are additive and WA they are subtracted to the cap. Will the difference be reconciled during the process? (Someone else expressed they were not aware of this and it seems contrary to subtracting to the cap)

- Comments on All Criteria
    - When laws went into effect, the number of oil refineries dropped, production was shifted to fewer oil refineries. Consider looking at the distribution not just the mean of air pollution. Closing oil refineries had the effect of lowering the amount but had unintended consequences
    - Leakage effects, chasing out companies but still using their products, if the cost of allowances is low enough they will continue purchasing, there has to be an analysis of imported electricity's emissions, instead of chasing the money, would like to see actual reduction of greenhouse gases. Making it cheaper to meet the act is not necessarily the answer
    - In their most recent Integrated Resource Plan, Puget Sound Energy indicates that they'll purchase allowances until 2045 rather than decarbonize their gas business.
    - For the electric sector, as we have conversation about compliance, it is important to understand that electric providers were already required to follow CETA. In addition to being subject to CCA, every utility is required to follow CETA, important to understand the different acts that companies need to follow other than CCA
    - Re PSE's 2023 Gas IRP, see page F.8 in this slide deck: file:///C:/Users/david/Downloads/12_IRP23_AppF_Final.pdf https://www.pse.com/-/media/PDFs/IRP/2023/gas/appendix/12_IRP23_AppF_Final.pdf?modified=20230331213553
- Discussion Summaries from the breakout rooms:
    - Wanting greater clarity/more information related to metrics within each criterion; Wanting better understanding about how linkage would impact public transit/potential opps for public transit as relates to linkage; by linking with market with lower price - shifting GHG reductions into another state than our state
    - Comments regarding linkage being the main driver to prices going down. Should occur sooner than later, regardless of compliance period; This should be guiding principles (reduce GHG) and less money brought through program. High allowance prices when market first began. Question about when prices will eventually level out? Need for liquidity in the market; Expressed concerns about industries needing to pass costs to consumers.
    - Concerns that linkage could dilute Washington's program. Concerns about reduced revenue for funded projects.

Individual and Small Group Meeting Comments

Department of Ecology staff offered to meet with individuals or organizations to discuss comments on linkage. The notes from those meetings are captured here.

Sustainable Bainbridge Meeting Notes

Date/time: May 10, 2023, 3:30-4:00 p.m.

Format: Video call

Attendees: Michael Cox, Steering Committee for Climate Action Bainbridge; Gene Smith, Sustainable Bainbridge Board Member; Derik Broekhoff, Bainbridge resident and member of Bainbridge's climate advisory group; Ted Larson Freeman, Bainbridge resident; Stephanie Potts, Ecology; Jihan Grettenberger, Ecology

Notes

The comments provided were personal opinions, not representative of the organization. Participants responded to the following discussion questions:

- What benefits of linkage are important to you?
    - A linked market is a more efficient, cost-effective way to reduce pollution.
    - A larger linked market could increase the momentum for other states to adopt cap-and-trade programs.
    - Linking may increase incentives for California to adopt more stringent greenhouse gas reduction targets.
- What concerns do you have about linkage?
    - Concerned about the impact of unused allowances and potential to increase emissions under linkage.
    - They expressed how Washington's well-designed program, more stringent regulations, and steeper cap decline rate than California reduces concerns for linking.
- Do you have concerns about impacts to communities that already have a higher exposure to environmental pollutants?
    - Unused allowances could mean regulated entities near overburdened communities would emit more, leading to greater local pollution.
    - Lower allowance prices could mean lower auction revenues, which impacts funds for overburdened communities. They also noted that lowering the allowance prices is good for the market.

- The CCA has innovative guardrails regarding facilities near overburdened communities, which should be retained after linkage.

Environmental Groups Meeting Notes

Date/time: March 20, 2023, 9 – 10:30 a.m.

Format: Hybrid in-person and virtual meeting

Attendees: Kelly Hall, Climate Solutions; Altinay Karasapan, Climate Solutions; David Mendoza, The Nature Conservancy; Rebecca Ponzio, Washington Conservation Action; Caitlin Krenn, Washington Conservation Action; Rachel Baker, Washington Conservation Action; Katie Fields, Washington Conservation Action; Kjellen Belcher, Environmental Defense Fund; Anabelle Drayton, NW Energy Coalition; Lauren McCloy, NW Energy Coalition; Derik Broekhoff, Stockholm Environment Institute; Stephanie Potts, Ecology; Andy Hayes, Ecology

Notes

- Ecology provided an overview of the linkage criteria and public engagement process. Ecology asked groups to provide suggestions for organizations to reach out to and resources to review for the linkage criteria.
- The participants shared they are concerned with the following: achieving Washington's greenhouse gas reduction goals, providing benefits to communities, ensuring no harm to overburdened communities, program durability, offset protocols.
- Participants provided the following suggestions for Ecology's review of the linkage criteria:
    - Compare how Washington defines overburdened communities with how California and Québec define them.
    - Look at air quality and criteria pollution laws in California and Québec and how they compare with requirements in the CCA.
    - Look into the following types of impacts to communities: air quality, benefits from offset projects, economic impacts (e.g. energy prices).
    - Look at how linkage between California and Québec has impacted Québec's ability to meet GHG reduction targets.
    - Look at the emissions reductions Washington expects to achieve from complimentary policies like Clean Energy Transformation Act and the Clean Fuel Standard.
    - Consider the tension between the criteria for linkage to reduce the cost of compliance with the need to generate revenue from auctions in order to fund clean energy and emissions reduction projects.

- Some participants discussed the need to align policies on electricity wholesale markets in order to link.
- Participants suggested that Ecology reach out to Resources for the Future.

Environmental Defense Fund Meeting Notes

Date/time: February 16, 2023, 10-11 a.m.

Format: Video call

Attendees: Kjellen Belcher, Environmental Defense Fund; Caroline Jones, Environmental Defense Fund; Stephanie Potts, Ecology

Notes

- Discussed the linkage criteria and public engagement process. Asked EDF to share suggestions for organizations to reach out to and resources to review for the linkage criteria.
- EDF staff stated they plan to submit comments on linkage by the deadline.

International Emissions Trading Association Meeting Notes

Date/time: March 14, 2023, 1-2 p.m.

Format: Video call

Attendees: Clayton Munnings, International Emissions Trading Association (IETA); Joseph Hoekstra, IETA; Stephanie Potts, Ecology; Derek Nixon, Ecology; Andy Hayes, Ecology

Notes

- Discussed the linkage criteria and public engagement process. Asked IETA to share suggestions for organizations to reach out to and resources to review for the linkage criteria.
- Clayton shared individual comments during the call and plans to submit written comments that reflect the views of IETA.
- Clayton noted that there are differences in the treatment of General Market Participants in California and Washington, including the holding limit.

- Clayton mentioned that the Washington regulations about the Allowance Price Containment Reserve are not clear on whether trading is allowed.
- Clayton suggested reaching out to Resources for the Future and Western States Petroleum Association.

Email Comments

1. Arvia Morris and Peter Clitherow. May 15, 2023.
2. Alisa Kaseweter, Bonneville Power Administration. May 12, 2023.
3. Cheryl Nelson. May 5, 2023.
4. Danny Cullenward. March 23, 2023.
5. David Victor. March 23, 2023.
6. Frances Merenda, 36th LD Environmental Caucus member. May 15, 2023.
7. Campaign email with selected example from James Feit. 263 total received. May 2023.
8. Matthew Hamilton, NAVFAC-NW Regional Media Manager for Air. April 13, 2023.
9. Michael Ruby, Envirometrics. May 11, 2023.
10. Lauren McCloy, NW Energy Coalition. May 2, 2023.
11. Dr. Rosemary Sweeney. Multiple email dated April 11-May 14, 2023.
12. David Perk, 350 Seattle. May 15, 2023.
13. Anew Climate, LLC. May 15, 2023.
14. Ken Taylor, bp America, Inc. May 12, 2023.
15. Kate Brouns, Renewable Northwest. May 12, 2023.
16. Kevin Tempest, Clean & Prosperous Institute. May 15, 2023.
17. Altinay Karasapan and Kelly Hall, Climate Solutions. May 15, 2023.
18. Chris Bliley, Growth Energy. May 15, 2023.
19. Jeremy Price, HF Sinclair. May 12, 2023.
20. Ambachew Admassie, Koyto LLC. February 6, 2023.
21. David B. Mendoza and Joshua Rubenstein, The Nature Conservancy. May 15, 2023.
22. Dan S. Kirschner, Northwest Gas Association. May 15, 2023.
23. Sienna Taylor, Mallory Ekman, and Sarah Miller. May 15, 2023.
24. Michael Wilding, Pacific Power/PacifiCorp. May 15, 2023.
25. Matthew Solak, Pacific Propone Gas Association. May 15, 2023.

26. Kjellen Belcher, Caroline Jones, and Delia Novak, Environmental Defense Fund. May 15, 2023.
27. Deric Gruen and Nico Wedekind, Front and Centered. May 15, 2023.
28. Joey Hoekstra, International Emissions Trading Association. May 2023.
29. Dallas Burtraw and William Shobe, Resources for the Future. May 15, 2023.
30. Sam Wade, Coalition for Renewable Natural Gas. May 15, 2023.
31. Derik Broekhoff and Michael Lazarus, Stockholm Environment Institute. May 14, 2023.
32. Tim Pabst, STX Commodities, LLC. May 15, 2023.
33. Rebecca Ponzio, Rachel Baker, Caitlin Krenn, and Katie Fields. Washington Conservation Action. May 15, 2023.
34. James Verburg, Western States Petroleum Association. May 15, 2023.
35. James McDermott, Parkland Corporation. May 15, 2023.
36. Janie Kilgore, POET, LLC. May 15, 2023.
37. Frank Durnford, Powerex. May 15, 2023.
38. Bruce Howard, Avista; Mary Wiencke, Public Generating Pool; Tashiana Wangler, Northwest Requirement Utilities; Lorna Luebbe, Puget Sound Energy; and Michael Wilding, PacifiCorp. May 15, 2023.
39. Lorna Luebbe, Puget Sound Energy; Mary Moerlins, NW Natural; Bruce Howard, Avista; and Abbie Krebsbach, Cascade Natural Gas Corporation. May 15, 2023.
40. Josh Walter, Seattle City Light. March 1, 2023.
41. Maria Batayola, Beacon Hill Council Seattle. May 15, 2023.
42. Christa Lim, Shell Energy North America. May 15, 2023.
43. Clare Breidenich, Western Power Trading Program. May 15, 2023.
44. Dr. Anastasia O'Rourke, Yale Carbon Containment Lab. May 15, 2023.

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From: Arvia Morris
To: ECY RE CCA Linkage
Subject: Comments regarding linkage of the Washington State Carbon Market with the California and Quebec Carbon markets
Date: Monday, May 15, 2023 9:18:07 PM

Comments regarding linkage of the Washington State Carbon Market with the California and Quebec Carbon markets

Arvia Morris and Peter Clitherow
morrisarv@gmail.com
peter.clitherow@gmail.com
Climate Advocates
Seattle, Washington

May 15, 2023

We recommend delaying linkage of the Washington State carbon market with California and Quebec carbon markets until after the first first comprehensive review of the Washington program in 2027 and/or certainty is reached regarding the ability of California Air Resource Board (CARB) to administer the California program in 2030. The question of CARB administration adds significant complexity and uncertainty to the linkage question which indicates that this question must be addressed before any of the required criteria for linkage in the Climate Commitment Act (CCA) can be evaluated by Washington Dept. of Ecology.

The Department of Ecology is required to evaluate if linkage would satisfy four criteria listed below before linking to the California and Quebec markets. For each criteria below are reasons that delay is needed to achieve a robust linked carbon market system which will address environmental justice concerns and reduce GHG according to the statutory requirements of 70A.45.020 2020

There is a strong drive for an early linkage date to reduce costs to entities that are covered under the Cap and potential efficiencies in administration of the program if there is linkage. These drivers serve short term business goals and potentially reduce administration costs but do not guarantee that linkage would help the CCA achieve its goals in reducing GHG and increasing environmental justice.

Criteria to be met:

1) Ensure California and Quebec have provisions to ensure their programs provide benefits to vulnerable populations and overburdened communities.

It is not clear what California's program will look like after 2030 when it will be determined if the CARB can administer the program. The question of CARB administration adds significant complexity and uncertainty to the linkage question and makes it unknowable till 2030 if the California and Quebec programs provide benefits to vulnerable populations and over burdened communities.

The Washington State legislature worked hard to include the HEAL Act in the CCA legislation. We need to see that the California program is aligned with Washington's Heal Act requirements. We want to pressure California to have high environmental justice (EJ) standards like Washington. Without similar embedded EJ legislation in the California reauthorization in 2030 there is no way to know that the California EJ commitment is comparable to Washington's. This is also true for Quebec.

2) Not have an overall negative effect on highly impacted communities in any jurisdiction.

Definitions are important. What criteria is used to define vulnerable populations and overburdened communities? This question needs to be answered similarly in all three jurisdictions for a linked system. Washington State is still determining what exactly these terms refer to and what data is used to define these communities. Similar data and criteria need to exist in all jurisdictions covered in a linked system. The UW health disparities map is a useful tool, but is not considered complete by some communities. Do similar data sets exist for California and Quebec?

To determine negative effects we need a complete set of baseline data on agreed upon criteria for impacts to over burdened communities without linkage and then be able to compare to with linkage. These data could take many years to collect. Linkage must not occur till baseline data are collected to see impacts from current policies without linkage and then be able to determine if linkage hurts or helps the baseline impacts.

Linkage will likely reduce the amount of money raised for Washington at an auction as currently the California allowance price is much lower than the Washington price and California has many more allowances. Any reduction in allowance price will result in less investment for climate solutions which could potentially be detrimental to highly impacted communities.

In addition, reductions in funds could undermine support for the Cap and Invest program especially if California or Quebec benefits disproportionately while Washington programs slow down due to lack of funding.

3) Not negatively impact Washington's ability to meet the emissions reduction commitment set in state law in 2020.

2021 Climate Commitment Act (CCA) set a goal that Washington State meet its statutory greenhouse gas (GHG) emission-reduction targets of 45% below 1990 levels by 2030, 70% below 1990 levels by 2040; and 95% below 1990 levels by 2050; and achieving the 2050.

Washington and California are already not meeting their goals and Washington has no baseline up to date GHG data. The last Washington state emissions inventory was published for 2019. There is supposed to be an inventory published every two years. The most recent data (not compiled into a report) on the Ecology web site was for 2021, two years ago. At a Senate Transportation meeting in January a representative from the Department of Ecology said that there was not enough staff to update the state GHG emissions inventory. This seems like it should be a straightforward task. If we can't keep up-to-date with emissions reporting, how will the state be able to administer the much more complicated compliance systems when data is not available in a timely manner. Linkage must not occur unless Washington has up-to-date GHG emissions data available on an annual basis that is no more than a year old. Ideally it would be preferred to have instantaneous data available so we can understand impacts of policy decisions rapidly and see if we are on track to meet our goals in as close to real time as possible.

Linkage will likely reduce the amount of money raised for Washington at

an auction unless the floor price is keyed to the Canadian price for carbon. This dilution in allowance value will decrease the amount of funds generated at allowance auctions.

So far direct investments and strong policy has resulted in the most GHG reductions (Cullenward and Victor 2020 chapters 7 and 8). Reducing funds available for direct investment in GHG reduction with low cost auction allowances hoping industry will use savings to reduce consumer costs is wishful thinking. If Ecology decides to implement linkage and this results in low allowance costs, they need to have a mechanism for determining if industry is using “savings” due to inexpensive allowances to clean up its industry. Ecology will also need to have predetermined criteria to determine if the economy is decarbonizing in Washington at a faster or slower pace. If linkage reduces the speed of Washington decarbonization, it must be terminated. Termination of linkage will be a messy process, so there is a big need to get it right the first time by proceeding slowly and understanding the unlinked Washington market first.

There are many downsides to low allowance costs, better to keep a tight market and high direct investment in solutions to meet our GHG goals. Linkage would have a neutral impact if the allowance price is kept high and if it were similar between the Canadian, California and Washington markets prior to linkage. Currently California’s allowances have a low price.

In summary, before linking with another program, we need more data about the strength of our market over time, decarbonization initiatives by covered entities, effectiveness of investments at reducing emissions, and integration of the administration of investments into state government. A significant change in CCA auction prices has the potential to affect all of these elements, and will introduce new uncertainties.

By establishing a baseline report ahead of linkage, Ecology and the Legislature will be better able to evaluate the potential impacts of linkage agreements, and subsequent reports will better assist with modifications and course corrections. The first CCA progress report is

not scheduled until 2027, whereas Ecology's current timeline expects to announce a linkage decision this summer, with actual linkage occurring as soon as 2025.

Ecology should produce at least one baseline report before linkage is complete.

4) Reduce the cost of compliance for covered businesses—

Washington's initial allowance auction price is only slightly higher than British Columbia's carbon tax, which has been aligned with the federal Canadian carbon tax. Meanwhile California's allowance prices are artificially low due to surplus banked allowances. British Columbia's carbon price is clearly more realistic, and because it is a defined tax, more predictable, providing more economic certainty for their covered entities. Washington should not lower its allowance price prematurely through linkage with California and should seek similar predictive certainty as the Canadian carbon tax. Providing allowance cost certainty will be key in enabling industry to plan how they will meet their compliance obligations.

.

Given the risk to Washington's ability to meet its climate goals through CCA investments posed by California's lower allowance price and volume of banked allowances, it would not be prudent for Washington to link with California until auction reforms recommended by IEMAC, such as the creation of an emissions containment reserve, have been completed.

Lower allowance prices are supposed to make it less expensive for entities to meet their compliance obligations. This may be true but it will also disincentivize industries from rapidly reducing GHG. It is also unlikely industries will pass on lower costs to benefit consumers.

The risk to slowing down progress with direct GHG reduction investments by linking to a market with reduced allowance prices, are not worth any reduction in administration or industry cost. Industry will like lower costs and administrators may find some aspects of the program easier to manage with linkage, but the many negotiations and compromises it will take to merge markets are not worth the risk to real gains in fighting Climate Change. Yes linkage will reduce costs but not

necessarily reduce pollution. We think the most important goal here is to reduce GHG pollution as efficiently as possible. Early linkage to a large carbon market in California with a weak carbon price is not a good way forward.

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From: Kaseweter,Alisa D (BPA) - AI-7
To: ECY RE CCA Linkage
Cc: Klumpp,Elizabeth C (BPA) - AIR-WSGL
Subject: BPA Comments to Ecology on Linkage
Date: Friday, May 12, 2023 12:22:31 PM

The Bonneville Power Administration (BPA) appreciates the opportunity to comment on whether Washington should pursue linkage with other carbon markets, namely those in California and Quebec. BPA supports Ecology moving forward with pursuing linkage with California and Quebec. As a wholesale power provider with sales across the Pacific Northwest and California, it is important to BPA to have consistency in GHG reporting and compliance programs across western states. Consistency will help to ensure efficient and effective electricity markets while also achieving state emission reduction goals. BPA notes that broader consultation will be needed among Washington's and California's constituents to identify and align areas of differences in the programs in the electricity sector, which will likely need to occur before linkage can take place. BPA urges Ecology to begin that consultation process early and with stakeholder involvement.

Thank you,

Alisa Kaseweter
Climate Change Specialist | Intergovernmental Affairs
BONNEVILLE POWER ADMINISTRATION
alkaseweter@bpa.gov
503-230-4358 (office) | (503) 312-6816 (cell)

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From: Cheryl Nelson <chrynelson@yahoo.com>
Sent: Friday, May 5, 2023 11:18 AM
To: ECY RE CCA Linkage <CCALinkage@ECY.WA.GOV>
Subject: please prioritize the environment

Hi!

I was reading about this carbon linkage thing, and to be honest… I don't understand it. It sounds complicated, and I don't have a lot of time free today to figure it out. Most people don't.

So instead I just want to say: Please prioritize environmental concerns over political or economic concerns. It's so much easier to recover a crashed economy than a crashed ecology. We need a livable future.

Thank you

Cheryl Nelson

Sent from Yahoo Mail for iPhone

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From: Danny Cullenward <dcullenward@ghgpolicy.org>
Sent: Thursday, March 23, 2023 10:10 AM
To: ECY RE CCA Linkage <CCALinkage@ECY.WA.GOV>
Cc: David G. Victor <david.victor@ucsd.edu>
Subject: RE: Request for input on linking Washington's carbon market with California and Québec

Thanks, David, and please let me know if I can be helpful to you, Stephanie.

I wanted to make sure your office was aware of the three (open access) peer-reviewed studies finding major problems with California's forest carbon offsets program, with sincere appreciation for the "offsets under the cap" model you are implementing in Washington:
https://onlinelibrary.wiley.com/doi/10.1111/gcb.15943
https://onlinelibrary.wiley.com/doi/full/10.1111/gcb.16380
https://esajournals.onlinelibrary.wiley.com/doi/full/10.1002/eap.2817

Arguably the most important linkage-related issue is the bank of 300+ million surplus allowances in California, which is particularly challenging in light of legal uncertainty about the California program's post-2030 future. My advisory committee wrote a chapter on the post-2030 legal authority question, which may be particularly relevant to you given the longer horizon over which the Washington program is explicitly authorized:
https://calepa.ca.gov/2022-iemac-annual-report/

Best,
Danny

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From: David G. Victor <david.victor@ucsd.edu>
Sent: Thursday, March 23, 2023 5:22 AM
To: ECY RE CCA Linkage <CCALinkage@ECY.WA.GOV>; Danny Cullenward (dcullenward@gmail.com) <dcullenward@ghgpolicy.org>
Subject: Re: Request for input on linking Washington's carbon market with California and Québec

Thanks Stephanie

I suggest that you review "Making Climate Policy Work", a book by Danny Cullenward (copied) and me about the actual track record of carbon markets—along with a compact theory to explain why that track record is (in most of the world, including the US) so much worse than expected. It includes a detailed discussion on carbon market linkage (generally a bad idea) and related topics such as offsets.

All best

David

--

David G Victor

Co-Director, Deep Decarbonization Initiative at the School of Global Policy and Strategy and the School of Engineering

Center for Global Transformation Professor of Innovation and Public Policy, School of Global Policy & Strategy

Professor of Climate, Atmospheric Science & Physical Oceanography, Scripps Institution of Oceanography (Adjunct)

Professor of Mechanical and Aerospace Engineering, Jacobs School of Engineering (by Courtesy)

Nonresident Senior Fellow, The Brookings Institution

9500 Gilman Drive #0519

La Jolla, CA 92093-0519 USA

tel: +1 (858) 344-8059

David.victor@ucsd.edu

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From:	Frances Merenda
To:	ECY RE CCA Linkage
Subject:	Linkage of Carbon Trading Systems
Date:	Monday, May 15, 2023 5:16:24 PM

Re: Linkage of Carbon trading systems (CCA with California/Quebec)

Thank you for the opportunity to comment on the potential linkage of Washington's carbon market with California and Quebec. I'm a resident of Washington, a homeowner, parent and proud of the passing of CCA, specifically setting a cap on our state's emissions and directing revenue generated from our carbon market to underserved and vulnerable communities and programs that will prioritize climate change mitigation and adaptation for those regions in the state that are hardest hit already.

I am writing to ask you and the Department of Ecology to delay any linkage between Washington's carbon market and California/Quebec.

The following four reasons are my key comments on this topic:

1. **We need more experience with our system before considering linkage**.
   Our system is new, we don't know what Washington's stable carbon price will be and therefore can't adequately predict the impact of linkage on our ability to take action (either by the emitting entities or in communities where funds will be invested). Linkage with California's market is expected to lower WA's allowance prices in future auctions. Entering into a linkage program where we anticipate the price of allowances to drop before we see where our own pricing settles is limiting. It is just plain logic that if we want to make progress quickly, we need the funds to do so. Right now, with only one auction completed, we don't have a trend on Washington's carbon market price; we have a datapoint. Give the system time to both set a trend for carbon price and to see how investments in programs are impacting our GHG emissions.
2. **Early investments in projects are critical to our 2030 emission reduction goals**.
   Time to bring down GHG emissions is incredibly short. We must act fast to invest in projects in Washington state and see what impact this program can have on GHG emissions reductions and environmental justice. Linkage may cause complexity at a time when we need to get going, see how the program works, invest quickly, measure impact, and establish a better understanding of what we might gain or lose with the linkage. We need to focus on local implementation right now.
3. **Carbon Price matters. Real change in GHG emissions locally matters too.**
   California's program has a lower carbon price and receives negative press on its impact. It's not clear that California (even after 10 years) is achieving their goals of

carbon reduction and environmental justice. A linkage of Washington with California/Quebec would likely reduce allowance prices in Washington by almost half, substantially reducing the money available for investment in such projects. We need to set expectations in Washington of higher future costs for inaction, in order to ensure an urgency to act now. We need to see that California has been able to turn around their impact on overburdened communities. We must ensure that the EJ Council in Washington has the opportunity to meet CCA requirements to administer the program and to deliver on our EJ goals before deciding to link.

4. **Timing and transparency also matter.**
   Linkage and linkage plans should not proceed without a baseline report of our own market. A significant change to the program without that baseline will result in impact measurement delays. Currently, the timeline for linkage would take place in 2025 and the first baseline report of the WA program isn't scheduled until 2027. Ecology should produce at least one baseline report before linkage is complete.

   Thank you again for the opportunity to share my perspective on considering linkage. I urge Ecology to delay linkage with California/Quebec or any other jurisdiction.

   Regards,

   Frances Merenda

Frances Merenda
36th LD Environmental Caucus member
PCO 36-2508

p.s. My current book is "Earth For All" by Sandrine Dixson-Decleve, Owen Gaffney, Jayati Ghosh, and Jorgen Randers. What are you reading?

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From: James Feit <James.Feit.624971380@advocacymessages.com>
Sent: Thursday, May 11, 2023 8:20 AM
To: ECY RE CCA Linkage
Subject: Conduct a robust linkage review

Dear Ecology,

Thank you for the opportunity to make my voice heard as Ecology deliberates on the important decision around whether to pursue linking Washington's carbon market with California and Québec.

It is important to me that Washington's program remains strong and that any decision to seek expansion of the market incorporates the following:

1. Develop strategies to maintain Washington's innovative offsets standards. These may include ensuring that offsets provide significant and verifiable direct environmental benefits (DEBS) to the state, ensuring offset use maintains the integrity of the emissions cap, conducting an annual review of offset purchases that includes tracking DEBS, and robust mechanisms to adjust allowances and available offsets based on that review that ensure offsets stay under the cap;

2. A thorough analysis exploring how linkage may impact overburdened communities and vulnerable populations in Washington, California, and Quebec. This analysis should include how "highly impacted communities" are designated in each linking jurisdiction and note any substantive differences. In its analysis, Ecology must consider information about air quality in addition to information about investments in highly impacted communities in each jurisdiction.

3. Proactive consultation with federally recognized tribes, with sufficient time and information made available; and

4. A clearly defined, publicly accessible, and transparent process for communicating during each step of linkage deliberations. This includes timely public notice of any changes that would be needed in Washington, California, or Quebec's program in order to meet the law's requirements prior to linking markets.

Throughout its linkage deliberations, Ecology should actively seek to incorporate recommendations of Washington's Environmental Justice Council and to provide adequate and timely information for the Council's deliberations.

Finally, I urge Ecology to provide additional clarity about opportunities for robust public engagement during each stage of these linkage deliberations.

Regards,
James Feit
2906 Jackman St
Port Townsend, WA 98368

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From: Hamilton, Matthew L CIV USN NAVFAC NW SVD WA (USA)
To: ECY RE CCA Linkage
Subject: CA / Quebec linkage
Date: Thursday, April 13, 2023 7:10:59 AM

To whom it may concern,

Linking across state lines is one thing but linking across international lines is another. Canada should not have a say in Washington state's affairs in any way, form or fashion. For that matter, neither should California.

Thanks,

Matthew (Matt) Hamilton, P.E.
NAVFAC-NW Regional Media Manager for Air
1101 Tautog Circle
Room 102 - Cubical 24
Silverdale, WA 98315
Office: (360) 396-0093
Cell: (919) 559-3388
Email: matthew.l.hamilton25.civ@us.navy.mil

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From: Michael Ruby
To: ECY RE CCA Linkage
Subject: Comment on linkage
Date: Thursday, May 11, 2023 2:50:34 PM
Attachments: HpfW7JE0X5t4bsHf.png

Linking the Climate Commitment Act (CCA) allowance auctions to the California markets has been promoted as potentially reducing the cost of allowances to Washington GHG emissions sources. This is based on the lower cost that has been experienced in California. Seeking lower auction prices is contrary to the intent of the EITE provisions of the CCA. During the legislative debates on the CCA it was pointed out by the sponsors that the purpose of the free EITE allowances was to provide allowances the EITE sources could sell to help finance their very costly conversion to carbon free processes. Artificially reducing the value of the allowances by buying into the California allowance swamp would reduce the ability of the EITE sources to more quickly make their conversions.

It will be much better to find ways to put the allowance auction guardrails at the Canadian carbon tax prices. The government of British Columbia has recently adjusted their carbon tax rates to comply with the new federal carbon price guidance. As a result their prices, even though quoted for fuels in source consumption units, are equivalent to Cdn$50 per tonne. See https://www2.gov.bc.ca/gov/content/environment/climate-change/clean-economy/carbon-tax

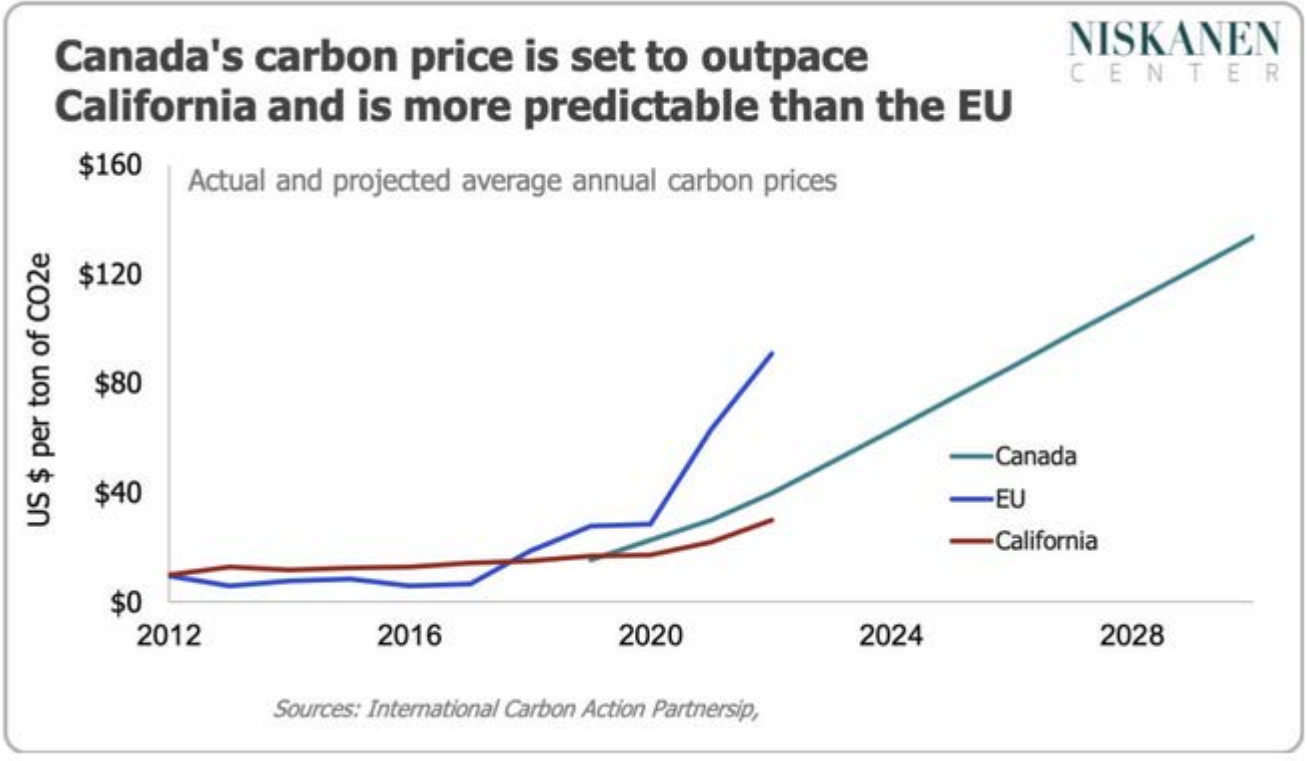
The current exchange rate of US dollars to Canadian dollars means that the BC carbon prices are approximately US$38/MT CO2e. I propose Washington should set its allowance low price guardrail as close to that value as it can. Consistency with the economy that is geographically closest to us is the more desirable course.

It is also important to look to the future of allowance prices as we need to be setting expectations of higher future costs in order to ensure an urgency of action. The Canadian federal tax has more certainty for the future than the California market prices and less volatile than the European prices.See https://www.niskanencenter.org/canadas-federalist-carbon-tax/

I urge Ecology to condition any future linkages to maintaining allowance price consistency with the federal Canadian carbon tax.

--
Mike Ruby
206 632 9841

Figure 2: Carbon price paths in Canada, EU, and California



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From: Lauren McCloy <Lauren@nwenergy.org>
Sent: Tuesday, May 2, 2023 4:41 AM
To: ECY RE CCA Questions <CCAQuestions@ECY.WA.GOV>
Cc: Annabel Drayton <annabel@nwenergy.org>; Charlee Thompson <charlee@nwenergy.org>; Fred Heutte <fred@nwenergy.org>
Subject: NWEC Comments on Electricity Imports Whitepaper

Washington Dept. of Ecology CCA Team:

We appreciate the work that went into developing the whitepaper presented at the April 24th Listening Session. The clear intent of the CCA is to regulate emissions associated with in-state electricity generation, as well as electricity generated outside the state and consumed in the state. The paper illuminates specific circumstances where the application of the compliance obligation are uncertain. EPEs need clear rules and we support Ecology moving forward with guidance in the near-term. Below are some comments on the issues raised in the whitepaper:

- We agree that multistate BAAs are not well addressed in the regulation. Failure to address these BAAs through guidance or rulemaking risks significant emission leakage and unintended consequences due to uncertainty in the electricity markets. We don't think the recommendations in the Whitepaper sufficiently address these concerns. For example, the paper recommends that electricity purchased by a MJRP and which sinks of their system or scheduling point is NOT considered to have sunk in WA. To the extent that this determination results in that data being deemed outside the scope of the program, we question whether Ecology will have sufficient data to support its review of those MJRPs' emissions reporting. Currently, it appears that MJRP providers are using existing cost allocation regimes to allocate emissions on their systems. In our view using cost allocation methodologies as a proxy for emissions is not a long-term solution because it presents significant opportunities for resource shuffling, which compromises the integrity of the program. We urge Ecology to continue to investigate how to strengthen the program's oversight for MJRPs.
- Secondly, we don't think PGE's purchases that sink at Mid-C should be covered under CCA. PGE is an OR retail electricity utility that has no retail load in WA. It is therefore not eligible for no-cost allowances under the program, as WA retail utilities are. We agree with PGE's comments in that we don't think it was the intent of the WA legislature to impose direct compliance costs associated with this program on a non-jurisdictional utility and its Oregon utility customers. The Whitepaper recommends that electricity that sinks at a sink POD of a BAA with no retail load in WA is not generally covered, unless the POD is a sink POD of a WA generator. It is our understanding that this interpretation would address most of our concerns, however, we would also support a broader categorical exemption for a retail provider in another state that: (1) has no Washington retail load, (2) has no Washington facility emissions, and (3) whose imports are made to support out-of-state load.
- Thirdly, we share the goal of having environmental integrity in the program and linking with the CA market, provided that linkage criteria are met. Ultimately, we believe that

utility customers in WA will be best served by having a fully integrated wholesale electricity market with California, and paving the path forward to a West-wide integrated market. There are a lot developments happening in wholesale electricity markets in the West, and changes are likely in the next several years. We hope that those developments will incorporate best practices for GHG accounting, and certainly not create any potential barriers to linkage or unintended consequences that could increase the cost of CCA compliance for Washington electricity utility customers. Utilities have advocated for flexibility to allow market rules to develop. In this vein, we urge the department to engage with the CAISO and market participants working on the SPP markets+ process to make its priorities known around governance, transparency, and program integrity, and to understand the potential impacts of a market seam in the state of WA. Ultimately, we believe that policy and regulation should drive market design, and not the other way around.

- Several organizations commented that more discussion is needed about the treatment of balancing energy. We agree that this is a complex topic, and there are likely many questions that have not been fully addressed in the whitepaper. We recommend that Ecology further scope this topic so that those specific questions around the treatment of balancing energy can be addressed.

Thank you for the opportunity to comment.

Sincerely,

--
Lauren McCloy (she/her)
Policy Director
NW Energy Coalition
(509) 201-3581 ***[Note: I have a new phone number]***
811 1st Ave, NE
Seattle, WA 98104
www.nwenergy.org

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From: Rosemary Sweeney
To: ECY RE CCA Linkage
Subject: Comments on linkage of Washington to California/Quebec
Date: Sunday, May 14, 2023 9:37:22 AM

To Whom It May Concern:

Make no mistake. I don't believe the Washington cap and invest system should be linked the California/Quebec system in the near future. Washington needs time to allow its system to work on its own without linking to a much larger system with a much lower allowance price, which will surely make Washington's allowance price to drastically decrease. This will lead to a number of bad outcomes. For example, emissions-intensive trade-exposed entities (EITEs) were envisioned during legislative debate to be able to get money from selling their free allowances to assist them in investing in reducing their carbon footprint. Also, money from the sale of allowances is used to invest in emission reduction and environmental justice projects under the CCA. These uses of money from allowances, which are critical to the success of the CCA, would be seriously undermined by a drastic decrease in allowance prices. Also, higher allowance prices now and in the future incentivize covered entities to find ways to lessen their emissions. All of this would be undermined by linking to the California/Quebec system in the near future.

However, if a linkage between the Washington and the California/Quebec cap and trade systems goes into effect, I am writing to encourage the Department of Ecology (the Department) to take its reporting obligations under the Climate Commitment Act (CCA) very seriously. I think it is likely that such a linkage will impede Washington's ability to meet the CCA's stated goals for greenhouse gas (GHG) emission reductions and also thwart efforts to achieve environmental justice. It is beyond argument that earlier reductions in GHG emissions are far more effective, as well as cost effective, than later ones in averting climate disaster. See, e.g., James Hansen, Storms of My Grandchildren: The Truth About the Coming Climate Catastrophe and Our Last Chance to Save Humanity, Bloomsbury, New York, Berlin, London, Sydney, 2009; IPCC AR6 Synthesis Report Climate Change 2023, *available at* https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_SPM.pdf. ***Thus, if the linkage occurs and has the effects I suspect it will, it is vitally important to know about it as soon as possible so that the course can be corrected in a timely manner.***

The only way the public will know about the effects of the linkage on GHG emissions, as well as on progress on environmental justice issues, is through reporting by the Department that meets, or even exceeds, the minimum reporting standards required by the CCA. ***Without this, Washington could spend years increasing its GHG emissions due to the linkage without correcting its mistake and without any public knowledge of the situation. This would seriously undermine the ability of Washington to achieve the emissions and environmental justice goals set forth in the CCA.***

It is worth noting that the approval of a linkage agreement by the Department must be determined to "not yield net adverse impacts to either jurisdictions' highly impacted communities . . . and . . . [n]ot adversely impact Washington's ability to achieve the emission reduction limits established in RCW 70A.45.020." RCW 70A.65.210(3)(c) and (d). ***I would interpret this language to mean that this determination must include ongoing monitoring and reporting by the Department once the linkage is in effect to ensure that Department's initial approval was not mistaken in its prediction of the effects of the linkage.***

GHG emissions under the CCA can be separated into two categories. First, there are GHG emissions by covered entities as defined by the CCA, which constitute about 75% of Washington's total GHG emissions and fall under Washington's cap. Second, there are GHG emissions by entities that are not covered entities as defined by the CCA, which constitute

about 25% of Washington's total GHG emissions and do not fall under the cap. Both are important.

The Department is obligated to submit its first comprehensive report on the implementation of Washington's cap and invest system by December 1, 2027 and to submit succeeding comprehensive reports at least every four years thereafter. RCW 70A.65.060(5). Of course, this does not prevent the Department from submitting its first report earlier and/or submitting subsequent reports more frequently. These comprehensive reports must describe outcomes relative to the state's emissions reduction limits, overburdened communities, covered entities, and emissions-intensive, trade-exposed businesses. Thus, the subject matter of these reports certainly includes information on GHG emissions by covered entities and possibly also includes information on emissions by other entities, for example, in the reported outcomes relative to overburdened communities.

To know in a timely manner how the subject matter of these reports might be changing due to a linkage, it is essential to have data both before and after the linkage. One way to accomplish this would be to make more frequent reports than are required by statute if a linkage is approved. This may make it easier to discern trends in a timely fashion. The data in each report should be separated into data before and after the linkage takes effect and perhaps also be separated year by year. This would make it possible to tell whether the linkage is affecting achievement of GHG emissions goals and outcomes relative to overburdened communities, among other issues. ***I strongly encourage the Department to embrace this diligent approach to its comprehensive reporting obligations in the unfortunate event that the Washington plus California/Quebec linkage goes into effect.***

With regard to the 25 percent of total GHG emissions not coming from covered entities, some of these emissions will hopefully be reduced by projects funded by the CCA-funded accounts described in RCW 70A.65.240-280, i.e., the carbon emissions reduction account, the climate investment account, the climate commitment account, the natural climate solutions account, and the air quality and health disparities improvement account. A linkage of Washington with California/Quebec would likely reduce allowance prices in Washington by almost half, thereby substantially reducing the money available in the above-mentioned accounts for investment in such projects.

The Department has an obligation to make an annual report on all distributions from the above-mentioned accounts, which discloses amounts distributed, how the money was used, quantitative effects on GHG emissions, the cost per metric ton of CO_2 equivalents ($mtCO_2e$) of GHG reduction, and comparison to other GHG reduction projects. RCW 70A.65.300. Such reports could provide valuable insight into whether the investments made are affecting conditions in vulnerable communities and GHG emissions statewide, both presently and long term. In these reports it would be valuable to distinguish data from before and after the linkage has affected the amount of money available in these accounts.

Finally, if (contrary to what I believe should occur) Washington links with California/Quebec, I strongly encourage the Department to take a very diligent approach to fulfilling its statutory reporting duties so as to provide prompt and accurate information as to whether the linkage is lessening Washington's ability to reach its emissions reduction and environmental justice goals. It can do this by monitoring progress and reporting in such a way that the effects of linkage on meeting the stated goals of the CCA will be discernable to the public ***at the earliest possible date.*** *I thank the Department and its employees for their service, and I encourage them to put their paddles in the water and help to steer this boat in the right direction.*

Sincerely,

Dr. Rosemary Sweeney

Citizen of the 46th Legislative District

From: Rosemary Sweeney
To: ECY RE CCA Linkage
Subject: Re: Question about market modeling study done by Vivid Economics
Date: Monday, April 24, 2023 5:23:55 PM

Hi Stephanie,
As you know, the VIvid Economics market analysis is currently on the WA Dept. of Ecology website without any explanation about whether the greenhouse gas emissions it discusses are total greenhouse gas emission or only the 75% of emissions due to covered entities under the CCA. You mentioned above that the emissions discussed are only those from covered entities under the CCA and do not include the remaining 25% of emissions.

This being the case, I believe that the Dept. of Ecology should either remove this potentially very misleading marketing report from its website or provide a very clear explanatory note saying the the greenhouse gas emissions discussed in the report are only those from covered entities, i.e., emissions falling under the cap. The note should further explain that money from auctioned allowances will be spent to promote environmental justice and reduce emissions, including the 25% of emissions that do not come from covered entities. It should further explain that the hope and expectation is that money spent on reducing the non-covered 25% of emissions will reduce these emissions and lead to lower total emissions. Finally, the note should mention that linkage will likely decrease the money available for such spending due to drastically reduced allowance prices due to linkage.

Thus, the conclusions drawn in the VIvid Economics report are very misleading and should be removed from the website or explained in detail so that members of the public can make informed decisions about their support, or lack thereof, of linkage. Anything less is undermining the goals of the CCA, and I would hope and expect that the Dept. of Ecology would act to comply with its duties under that law.

Again, thanks so much for listening.

Best regards,
Rosemary

On Wed, Apr 19, 2023 at 7:53 PM Rosemary Sweeney <rosemary.sweeney1235@gmail.com> wrote:

From: Rosemary Sweeney
To: ECY RE CCA Linkage
Subject: Question about market modeling study done by Vivid Economics
Date: Saturday, April 15, 2023 9:48:27 AM

To Whom It May Concern:

In a previous email, Katherine Potts provided me with a link to the above-mentioned study, which looks at predicted allowance prices and GHG emissions under three different scenarios, i.e., (1) linking (with CA/Quebec), (2) frontloading, and (3) no linking/no frontloading. The modeling predicts highest allowance prices with scenario (3), next-highest with scenario (2), and lowest with scenario (1). GHG emissions are predicted to be almost the same in all three scenarios.

What I am wondering is whether (a) the GHG emissions examined by the model are only those emitted by covered entities under the cap, which are estimated to by about 75% of all GHG emissions or (b) the GHG emissions examined include *all* GHG emissions, including the 25% of emissions emitted by parties not covered by the cap, which comprise about 25% of GHG emissions. If (a) is the case, I am wondering whether the investment possible with higher allowance prices, e.g., as in scenarios (2) and (3), might affect the 25% of GHG emissions that don't fall under the cap, thus potentially affecting total GHG emissions. If the modeling looks only at the 75% of GHG emissions that are under the cap, such effects would not be reflected in their predicted results. *Please comment on these issues.*

THANKS so much.

Best regards,
Rosemary Sweeney

From:	Rosemary Sweeney
To:	ECY RE CCA Linkage
Cc:	Rosemary Sweeney
Subject:	linkage of the WA cap and invest system with the CA/Quebec linked system
Date:	Tuesday, April 11, 2023 10:10:54 AM

To Whom It May Concern:

I am very concerned about the WA cap and invest system potentially being undermined by its linkage with CA and Quebec, especially before the WA system has operated on its own for even a single year. I have collected a series of relevant facts, including the fact that the Department of Ecology has a legal duty not to undermine the WA system and that CA currently has about a year's worth of purchased, but unused, allowances in the possession of CA entities. As I am sure you are aware, this is a dangerous situation. In a similar situation some years ago, the European system went to some lengths to rid itself of unused allowances in order to stabilize its market. Further, CA's current trajectory is not bending toward meeting its 2030 goals. Following the facts, I pose a number of questions, which I hope you can answer in great detail, either at the April 18 listening session or in a response to this email. I would also be interested in any other comments or information you could offer on this proposed linkage.

In view of the facts that

(1) Washington's Climate Commitment Act obligates the Department of Ecology (the department) to "evaluate and make a finding regarding whether the aggregate number of unused allowances in a linked program would reduce the stringency of Washington's program and the state's ability to achieve its greenhouse gas emissions reduction limits" (RCW 70A.65.210(3)),

(2) A linkage agreement approved by the department must

"(c) Be determined by the department to not yield net adverse impacts to either jurisdictions' highly impacted communities or analogous communities in the aggregate, relative to the baseline level of emissions; and

(d) Not adversely impact Washington's ability to achieve the emission reduction limits established in RCW **70A.45.020**" (70A.65.210(3)(c) and (d)),

(3) California currently has about 321 million unused allowances (which would cover about the amount of GHG emissions expected to occur in a year in California) in the possession of covered entities in this system (https://apnews.com/article/climate-business-environment-pollution-california-air-resources-board-21d34adf68b5d612fbc37c3f10a13fef),

(4) the Independent Emissions Market Advisory Committee (a committee of 5 experts appointed by the CA governor and legislature) has opined that these unused allowances could substantially interfere with CA's progress in reducing GHG emissions (https://apnews.com/article/climate-business-environment-and-nature-california-pollution-694060aa41a4e78dc8a436a71d57564d),

(5) use of offset credits is viewed as being detrimental to progress in meeting GHG emissions goals in cap and trade systems (see, e.g. Cullenward and Victor, Making Climate

Policy Work, polity, 2021, Chapter 5.)

(6) in CA offset credits could be used to meet up to 8 percent of a covered entity's compliance obligation for emissions through 2020, up to 4 percent from 2021-2025 and up to 6 percent for emissions from 2026-2030 (https://ww2.arb.ca.gov/our-work/programs/compliance-offset-program/about), whereas in WA offset credits can be used to meet no more than 5 percent of a covered entity's compliance obligation for emissions in the first compliance period (2023-2026) and no more than 4 percent in the second compliance period (2027-2030)(RCW 70A.65.170(3)(a) and (b)), although these limits can be modified by rule to align with jurisdictions with which WA has linked (RCW 70A.65.170(3)(c)),

(7) California's own progress report based on data available through 2019 indicates that "many trends moved in the wrong direction, away from advancing climate goals and showing worsening inequality" (Draft 2022 Progress Report California's Sustainable Communities and Climate Protection Act), and

(8) the 2023 allowance price of the California/Quebec linked cap and trade system is $27.85 (https://ww2.arb.ca.gov/news/california-and-quebec-release-summary-results-34th-joint-cap-and-trade-allowance-auction), and the 2023 allowance price of the WA cap and invest system is $48.50 (https://www.realchangenews.org/news/2023/03/15/washington-holds-first-carbon-auction-determining-price-4850-ton),

what are the Department's views on

(1) whether linkage of WA with CA/Quebec will interfere with WA's progress towards its emissions goals,

(2) whether the WA allowance price will fall if WA links with CA (or if WA price does not fall, I am not sure why any WA entity would buy WA allowance at $48.50 when it could buy a CA/Quebec allowance at $27.85), thereby leading to (a) a lessening of revenue available for WA to spend on various projects furthering both environmental justice and reduction of GHG emissions and/or GHG capture (for example in forests) and (b) a lessening of pressure on covered entities to curb their GHG emissions, given the decreased allowance prices,

(3) whether there is any possibility that linkage will increase the CA/Quebec allowance price to WA levels if WA links with CA/Quebec,

(4) whether the linkage of WA with CA/Quebec will have adverse effects on already highly impacted communities in WA,

(5) whether it might be wiser to let the WA cap and invest system operate on its own for a year or more, as opposed to immediately linking to another jurisdiction, to determine how effectively the system will operate using the original WA rules, as opposed to immediately modifying these rules to link with another jurisdiction, and

(6) whether the department thinks it might be preferable to seek a partial linkage with the CA/Quebec system, rather than a full linkage, and, if so, what form would such a partial linkage take?

Sincerely,
Rosemary Sweeney

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5031 University Way NE
Seattle, WA 98105
info@350seattle.org

May 15, 2023

Stephanie Potts
Cap-and-Invest Program Linkage Planner
CCALinkage@ecy.wa.gov

Re: Should Washington link its carbon market to California and Québec's?

Dear Ms. Potts,

Thank you for the opportunity to comment on the potential linkage of Washington's carbon market with California and Québec's (hereafter, "California" except where noted).

350 Seattle urges Ecology to delay any such linkage.

Linkage with California's carbon market is expected to lower Washington's Climate Commitment Act (CCA) allowance prices in future auctions. Some argue this is positive because polluters will have lower costs to pass on to consumers and that, in turn, would preserve public goodwill and avoid legislative or initiative attempts to curtail the CCA.

350 Seattle takes a different view. We recommend that Washington's allowance prices should be set exclusively by Washington's market. The allowance price is the primary driver for finding the right balance between a price high enough to force emissions down in time to meet our goals but not cause industry leakage. Allowing California's market price to dilute the strength of Washington's market will, in the words of RCW 70A.65.210, "*reduce the stringency of Washington's program and our state's ability to achieve its greenhouse gas emissions reduction limits*" (1, see also References, below).

Here we elaborate eight reasons for our perspective, followed by two additional concerns and an observation.

Reason 1: Our system should be better established before linking

The CCA is just getting started. Covered entities need more time to find their footing. For example, before the first auction, fuel suppliers were proactively frontloading surcharges and/or using the CCA as an excuse to raise prices for end users (2). Even agricultural fuel companies that were exempted from the CCA took part (3).

Before committing Washington to linkage with another system that will introduce new complexities, Ecology should counter local misinformation and, to the degree possible, enforce a fair program here in Washington. Given that enforcement may require additional legislation, more time is needed. It is premature to consider linking with California's cap and trade system.

Reason 2: Early investments are the most impactful

Washington's CCA revenues have only just begun and our legislature has just started investing in infrastructure and programs to lower emissions and/or mitigate climate change impacts. Early investments are the most impactful at reducing emissions and we need to keep our focus local. This is crucial given our 2030 emission reduction goals, and the increasing instability of the climate. The upcoming El Nino ocean temperature warming cycle is expected to bring a new level of climate instability (4, 5). Emission reduction and resiliency investments in Washington are needed now more than ever. Lowering CCA allowance prices as the result of linking with California pulls our focus from our own developing programs and would be counterproductive at the worst possible time.

Reason 3: A baseline report should precede linkage

Before linking with another program, we need more data about the strength of our market over time, decarbonization initiatives by covered entities, effectiveness of investments at reducing emissions, and integration of the administration of investments into state government. A significant change in CCA auction prices has the potential to affect all of these elements, and will introduce new uncertainties.

By establishing a baseline report ahead of linkage, Ecology and the Legislature will be better able to evaluate the potential impacts of linkage agreements, and subsequent reports will better assist with modifications and course corrections. The first CCA progress report is not scheduled until 2027, whereas Ecology's current timeline expects to announce a linkage decision this summer, with actual linkage occurring as soon as 2025.

Ecology should produce at least one baseline report before linkage is complete. This may require enabling legislation.

Reason 4: Higher allowance prices are more effective

Emissions Intensive Trade-Exposed covered entities benefit from a high allowance price because their no-cost allowances provide them capital for their decarbonization investments. And a high price for compliance allowances provides a clear market signal that it is more cost-effective to address decarbonization.

Puget Sound Energy (PSE), one of Washington's largest climate polluters, has already provided evidence that the initial CCA auction price was not high enough. In their 2023 Gas Utility Integrated Resource Plan (6), PSE indicates that they intend to keep buying allowances in the CCA compliance market until 2050 rather than take the necessary steps to actually decarbonize because their electrification scenario is 15% more expensive -- see Fig. 2.11, Preferred Portfolio (7) vs Fig. 6.1, Electrification Scenario (8). Given that the initial CCA auction price wasn't high enough to incentivize change at PSE, a lower auction price as a result of linkage with California would remove any incentive for PSE to decarbonize their gas utility.

Reason 5: British Columbia's carbon price is more realistic and predictable

Washington's initial allowance auction price is only slightly higher than British Columbia's carbon tax, which has been aligned with the federal Canadian carbon tax. Meanwhile California's allowance prices are artificially low due to surplus banked allowances. British Columbia's carbon price is clearly more realistic, and because it is a defined tax, more predictable, providing more economic certainty for their covered entities. Washington should not lower its allowance price prematurely through linkage with California and should seek similar predictive certainty.

Reason 6: California's auctions are oversupplied and underpriced

California has, admirably, recently adopted net-zero carbon emissions by 2045, requiring accelerated emission reductions to meet its 2030 goals. A tighter market with fewer allowances will be necessary. Currently California's market suffers from price uncertainty, and low prices have led to allowance banking that suppresses their market's allowance price. In its 2022 report the state's Independent Emissions Market Advisory Committee (IEMAC, 9) advises *for the fifth consecutive year* reforms to California's auction system and how allowances are supplied (10).

Before entering into a linkage agreement, Ecology must evaluate and make a finding whether the aggregate number of unused allowances in a linked program would reduce the stringency of Washington's program and our state's ability to meet its emissions limits (1). In its 2021 report, IEMAC calculated that 321 million allowances have been banked, more than the emissions reductions expected from California's cap and trade program over the coming decade (11), and more than five times the number of allowances Washington has budgeted for 2023 (12).

Given the risk to Washington's ability to meet its climate goals through CCA investments posed by California's lower allowance price and volume of banked allowances, it would not be prudent

for Washington to link with California until auction reforms recommended by IEMAC, such as the creation of an emissions containment reserve, have been completed.

Reason 7: Washington and California need more time to ensure their individual programs meet environmental justice goals.

The Climate Commitment Act states in clear language that program design must be guided by the Environmental Justice Council (EJC, 13). Yet the last two years have shown us that the work of forming and educating the council and establishing the council's working relationships with state agencies is a slow and arduous path. The EJC needs more time to build expertise in how Washington's program should be administered to ensure it meets its environmental justice commitments. Adding another state's program at this point would be counterproductive. This is especially true when California's system needs structural reforms to better address that state's environmental justice issues.

In an attempt to accomplish long overdue site-specific air quality reforms, California's Environmental Justice Advisory Committee (EJAC, 14) has recommended that some polluting facilities be prohibited from using allowances (15).

Whether, and how, California's air quality reform will be implemented remains to be seen, but it may involve significant changes to how their carbon market provisions allowances and trades them, whether the use of offsets is modified, and how banked allowances are used.

Given that Washington is implementing a different methodology to pursue similar goals, we should delay linkage with California until there is more certainty regarding necessary changes to their program design and Washington's EJC can knowledgeably evaluate the impacts of linkage on our environmental justice goals.

This directly relates to RCW 70A.65.210 (3) (b), *"Ensure that the linking jurisdiction has provisions to ensure the distribution of benefits from the program to vulnerable populations and overburdened communities."* (1).

Reason 8: Will California's system continue past 2030?

The legal authority of the California Air Resources Board (CARB, 16) to implement their cap and trade system past 2030 has been called into question (17). Legislative remedies may be required to clarify CARB's authority to administer and enforce the program.

Given this statutory uncertainty, linking prematurely with California could create significant market uncertainties for Washington, with the potential result of curtailing CCA investments and compromising our state's ability to meet its climate goals.

IEMAC recommends that California act to reform its system before 2025. Washington should delay any linkage decision until it becomes clear whether California will meet that recommendation.

We have two additional concerns regarding linkage with California and Quebec.

Concern 1: California's forest offset buffer pools are inadequate

We previously expressed our concerns with California's forest offset protocol to Joshua Grice during public comment on WAC 174-446 (18). As noted there, California's forest offset buffer pools are inadequate.

Purchasers of forest offsets in Washington's carbon market should be protected from California's forest offset products. While that protection does not have to preclude linkage with California, it should inform Ecology's timeline for linkage and future linkage negotiations.

Concern 2: Québec's new forestry offset protocol is flawed

Last December, Québec introduced a new forest offset protocol that adopts ton-year accounting, an approach for bundling short-term carbon storage into offset credits. Earlier this month, independent non-profit climate solutions analyst CarbonPlan expressed concerns regarding Québec's new protocol:

> *"...ton-year accounting is at best an incomplete method for valuing temporary carbon storage. At worst, it is an unscientific justification for ongoing emissions."* (19)

Purchasers of forest offsets in Washington's carbon market should be protected from Québec's new forest offset credits.

> *"...credits originating from Quebec are eligible for use by regulated polluters in California. Washington State is currently considering linking its carbon market to these jurisdictions as well. We hope our analysis motivates regulators in both Washington and California to examine these issues and prevent the use of credits generated under Quebec's reforestation protocol."* (19)

We urge Ecology to examine CarbonPlan's concerns thoroughly. While Québec's flawed protocol may not preclude linkage with California, it should inform Ecology's timeline and future linkage negotiations.

We close with this observation:

Skepticism over linkage is justified

Skepticism regarding the virtues of linkage is longstanding (emphasis added):

> *"It is becoming clear that cap and trade works only under special circumstances — when one entity controls the market and parallel initiatives do not undermine it."* (20)
>
> *"Linked carbon markets are difficult to manage when many regulatory authorities compete. Interactions with other climate policies trigger unintended outcomes. Policymakers find it hard to keep prices at the 'right' level — neither so high that a carbon market becomes politically unacceptable, nor so low that it fails to change behaviour.* ***California's case shows that lawmakers can be tempted to use regulatory loopholes to drive down prices and weaken the market's effectiveness. Such problems will only worsen when more markets are linked up.****"* (20)

This analysis is as true today as it was when it was published six years ago. In our view it speaks to inherent risks in any cap and trade system, and provides insight into why carbon prices differ between California and Washington.

Thanks to the proactive efforts of legislators, policy advisors and independent groups, Washington took lessons from California and succeeded in creating a cap and invest system that is now referenced as a model for other states, including California and, most recently, New York State. Given this success, Washington should not squander its leadership. Our state and agency leaders have a moral responsibility to incentivize California to make positive changes.

We urge Ecology to delay linkage with California or any other jurisdiction.

Again, thank you for the opportunity to comment, and thank you to all of the Ecology staff who are ensuring that the Climate Commitment Act is effective.

Sincerely yours,

David Perk
350 Seattle
davidperk@350seattle.org

350 Seattle works toward climate justice by organizing people to make deep system change: resisting fossil fuels; building momentum for healthy alternatives; and fostering resilient, just, and welcoming communities.

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Submitted electronically via e-mail

Ms. Stephanie Potts
WA Dept. of Ecology
Air Quality Program
P.O. Box 47600
Olympia, WA 98504-7600

May 15, 2023

Dear Ms. Potts:

Anew Climate, LLC (Anew) would like to thank the Washington Department of Ecology (Ecology) for the opportunity to provide comments in support of linking the Washington cap-and-invest program with the California and Quebec carbon markets.

Anew was formed through the merger of Element Markets and Bluesource in February 2022. It is one of the largest climate solutions providers in North America and, through its legacy companies, has a successful track record over the past two decades in developing and marketing carbon credits, renewable natural gas, low carbon fuels, electric vehicle credits, emissions credits, and renewable energy credits, in both compliance markets (such as the linked California-Quebec cap-and trade program) and voluntary markets, and in supporting client companies in quantifying and reporting on their greenhouse gas ("GHG") inventories and developing corporate climate strategies and targets.

Anew is supportive of measures that are designed to make carbon markets more robust, increase liquidity in the market, and reduce compliance costs. We therefore strongly support the concept of linking the Washington cap-and-invest program with the existing carbon markets in California and Quebec.

The broader benefits of creating larger carbon markets through linking have been well established and documented. They include political and administrative benefits of sharing best practices and lower administrative costs and important economic benefits such as increased

market liquidity, increased efficiency through more cost-effective abatement solutions in larger systems, and avoidance of leakage.

A recent report entitled "*Roadmap for Linkage, Aligning California and Washington's Carbon Prices*," co-authored by the International Emissions Trade Association (IETA) and the Environmental Defense Fund (EDF) noted:

> "*Economists have carefully studied the benefits of formal linkage. Fundamentally, formal linkage leads to a single allowance price across all linked jurisdictions, thereby reducing total costs to final consumers without sacrificing environmental benefits*." (citing: "To Link or Not to Link: Benefits and Disadvantages of Linking Cap-and-Trade Systems". Climate Policy 9(4): 358-372.13)

The report also observes:

> *"In turn, these cost reductions make it easier for regulators to achieve ambitious climate targets and lower overall cap levels.*" (citing: "*Facilitating Linkage of Climate Policies Through the Paris Outcome*". Climate Policy: 1-1714).

Further, there is evidence that the cost savings associated with linking cap-and-trade systems could be reinvested into additional climate action and lead to even more GHG emissions reductions. For example, on an international scale, another study highlighted in the IETA-EDF report showed that countries could double their emissions reductions by 2030 if they reinvested the cost savings from a formally linked international carbon market into enhanced ambition. ("*How Much Could Article 6 Enhance Nationally Determined Contribution Ambition Toward Paris Agreement Goals Through Economic Efficiency*?" Climate Change Economics 12(2). While the study observed this on an international level in relation to Art. 6, there is no reason that the same dynamic could not unfold when linking state-level cap-and-trade regimes.

Lastly, the EDF-IETA report observes that formal linkage also eliminates competitiveness impacts across jurisdictions, thereby reducing concerns over emissions leakage between linked jurisdictions.

Altogether, there is ample data and scientific research conducted over more than 15 years that demonstrates the overall benefits of linkage between two carbon markets.

Based on the research and scientific evidence, as well as Anew's 20+ years of experience in carbon markets, we believe that – once important details are ironed out - linkage with the California and Quebec carbon markets would allow Washington to accomplish the statutory objectives of linking with other jurisdictions, namely:

- Allow for the mutual use and recognition of compliance instruments issued by Washington and other linked jurisdictions;
- Broaden the greenhouse gas emission reduction opportunities to reduce the costs of compliance on covered entities and consumers;
- Enable allowance auctions to be held jointly and provide for the use of a unified tracking system for compliance instruments;
- Enhance market security;
- Reduce program administration costs; and
- Provide consistent requirements for covered entities whose operations span jurisdictional boundaries.

In addition, we would like to flag that the New York Department of Environmental Conservation is required to implement an economy-wide cap-and-investment program by January 2024, per New York's State Climate Action Council Scoping Plan. New York's close proximity to Quebec raises significant potential benefits of linkage. We recommend that Ecology coordinate with the New York DEC, as well as with the states of California and the province of Quebec, to maximize future benefits for Washington of linking its cap-and-invest program with other jurisdictions.

Therefore, Anew strongly urges Washington Ecology to continue to pursue linkage with these established carbon markets.

Sincerely,
Anew Climate, LLC

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Ken Taylor
Environmental, Social & Carbon Superintendent
bp Cherry Point Refinery

bp America, Inc.
4519 Grandview RD
Blaine, WA 98230

May 12, 2023

Stephanie Potts
Washington State Department of Ecology – Air Quality Program
Submitted via Electronic Mail

Re: Comments on Linkage of the Climate Commitment Act to Other Carbon Markets

Dear Ms. Potts:

On behalf of bp America Inc, thank you for the opportunity to comment on the Washington Department of Ecology's ("Ecology's") process of determining whether linking the state's Climate Commitment Act ("CCA") with other jurisdictions would be beneficial to Washington.

bp's ambition is to become a net zero company by 2050 or sooner, and to help the world reach net zero, too. Consistent with bp's ambition, we are actively advocating for policies that support net zero, including carbon pricing. bp believes that a well-designed price on carbon – either a tax or a cap-and-trade system – is the most efficient way to reduce greenhouse gas ("GHG") emissions. Accordingly, we participated as part of a wider coalition in support of the enactment of the CCA and are vested in its continued success – as demonstrated by bp's engagement in the CCA rulemaking process.

bp strongly supports linkage to California and Québec because it's beneficial to all participants in the CCA program, important to the CCA's sustainability, and an important step towards achieving Washington, federal, and international climate goals.

More specifically:

- Linkage increases CCA efficiency: Linking Washington state to larger and more established markets will more quickly achieve the state's GHG emission reduction goals while supporting industries in the state that are transforming operations in support of those goals. Linkage will dramatically expand the number of participants, the economic scope of the carbon market, and the opportunities for GHG emission reductions. As acknowledged in the CCA (RCW 70A.65.210(1)), the anticipated effect of this expansion is greater liquidity that provides for greater market stability, which is critical given Washington's ambitious GHG reduction goals. It is also expected that linkage will significantly improve CCA compliance efficiency. By further leveling the playing field with businesses in California and Québec, linkage will also reduce the risk of leakage—consistent with the legislature's intent in enacting the CCA (RCW 70A.65.005(6)).

- Linkage sends a signal to other governments: Harmoniously syncing economy-wide, market-based carbon pricing programs from two very different sized states and one Canadian province sends a powerful signal to other states and provinces to enact their own programs and join the ever-growing carbon market. Expansion of carbon markets beyond these three jurisdictions will amplify the efficiency benefits discussed above.

- Linkage sends a positive signal to low carbon energy producers: Washington state working with other governments gives a wider breadth of economy alignment — which is necessary for the expansion of the low carbon fuels market. This cross-jurisdictional alignment can create signals for bp and other energy producers to further invest in projects that will enable the production of low carbon fuels.

Thank you again for the opportunity and please feel free to contact me at kenard.taylor@bp.com or 219-370-3310 if you would like to discuss further.

Sincerely,

Ken Taylor

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May 12, 2023

Stephanie Potts
Cap-and-Invest Program Linkage Planner
Washington Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600

Re: **Renewable Northwest's comments regarding Washington cap-and-invest linkage**

Dear Ms. Potts:

Renewable Northwest ("RNW") thanks the Washington Department of Ecology ("Ecology") for this opportunity to comment on linking Washington's carbon market with other markets. Back in March, a large group of stakeholders including RNW sent a joint letter to Ecology requesting a dedicated process for the electric sector to discuss issues pertaining to cap-and-invest program linkage.[1] The Climate Commitment Act ("CCA") already recognizes the electric sector's complexity by directing Ecology to conduct a centralized electricity market rulemaking by October 1, 2026, in consultation with any linked jurisdiction, the Department of Commerce, and the Utilities and Transportation Commission. We reiterate the requests from that letter here, namely:

- We recommend Ecology pursue market linkage with California and Québec.
- We recommend Ecology host a series of public stakeholder workshops in Summer 2023 to discuss issues related to linkage specific to the electric sector. These workshops would inform future rulemakings and/or implementation of current rules.
- We recommend Ecology employ a consultant with specific experience in Western wholesale energy markets and greenhouse gas pricing policies to guide and facilitate an independent assessment of the issues and any proposed solutions.

[1] See Appendix A for the stakeholder letter sent to Ecology titled "Climate Commitment Act Linkage Process – Request for Stakeholder Workshops".

We appreciate the opportunity to provide feedback on cap-and-invest program linkage and look forward to continued dialogue on implementing the CCA.

Sincerely,

Kate Brouns
Washington Policy Manager
Renewable Northwest
kate@renewablenw.org

Appendix A

March 17, 2023

Sent via E-mail

Attention: Luke Martland
Department of Ecology
Air Quality Program
P.O. Box 47600
Olympia, WA 98504-7600

RE: Climate Commitment Act Linkage Process – Request for Stakeholder Workshops

On January 31, 2023, the Department of Ecology (Ecology) announced that it was seeking public input on the question of linking Washington's cap-and-invest program under the Climate Commitment Act (CCA) to other carbon markets, namely those of California and Quebec. For the reasons articulated below, the parties indicated as follows (the "Indicated Parties") strongly urge Ecology to host a series of public stakeholder workshops in Spring and Summer 2023 to discuss issues specific to the electric sector as part of Ecology's linkage process, which may also inform future rulemakings impacting the electric sector and/or implementation of current rules. Further, the Indicated Parties recommend that Ecology employ a consultant or consultants with specific experience in Western wholesale energy markets and greenhouse gas pricing policies to guide and facilitate an independent assessment of the issues and any proposed solutions.

Of the economic and industrial sectors covered by the CCA, the electric sector is unique in that Washington's grid is already physically interconnected with that of California via the Western Interconnection. Current power market dynamics overlay the physical realities of a grid comprised of more than thirty-five Balancing Authority Areas. Additionally, the Bonneville Power Administration and five Washington electric utilities are participating in the Western Energy Imbalance Market (WEIM) as of 2022, and the California Independent System Operator (CAISO) is moving forward in 2023 with a proposal for an Extended Day-Ahead Market. The CCA recognizes this complexity by directing Ecology to conduct a centralized electricity market rulemaking by October 1, 2026, in consultation with any linked jurisdiction, the Department of Commerce, and the Utilities & Transportation Commission,[2] and by specifying that imported electricity from linked jurisdictions shall be construed as having no emissions[3]. This reality is made even more complex by the implementation of the First Jurisdictional Deliverer (FJD) approach to imported electricity, which currently seeks to assign the carbon obligation to the entity responsible for importing electricity into the state.

Because of these and other policy and market considerations, the linkage issues around the electric sector are likely to be complex and challenging. It will be critical for Ecology and other stakeholders to have the benefit of third-party expertise on electricity markets as linkage is considered and potentially operationalized.

Thank you for the opportunity to provide input on connecting Washington to other carbon markets. The Indicated Parties look forward to continued dialogue with Ecology as implementation of the CCA progresses.

Sincerely,

/s/ Scott Kinney
Scott Kinney
Vice President, Energy Resources
Avista

/s/ Alisa Kaseweter
Alisa Kaseweter
Climate Change Specialist,
Intergovernmental Affairs
Bonneville Power Administration

/s/ Kelly Hall
Kelly Hall
Washington Director
Climate Solutions

[2] RCW 70A.65.080(1)(c)
[3] Ecology GHG Reporting Rules - WAC 173-441-124 (2)(g)(ii)

/s/ Kjellen Belcher
Kjellen Belcher
Manager, U.S. Climate Policy
Environmental Defense Fund

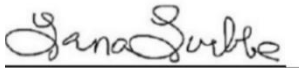
Ralph Cavanagh
Energy Program Co-Director
Natural Resources Defense Council

/s/ Lauren McCloy
Lauren McCloy
Policy Director
NW Energy Coalition

/s/ Tashiana Wangler
Tashiana Wangler
Rates and Policies Director
Northwest Requirements Utilities

Michael Wilding
Vice President of Energy Supply Management
PacifiCorp

/s/ Mary Wiencke
Mary Wiencke
Executive Director
Public Generating Pool



Lorna Luebbe
Sr. Vice President, Chief Sustainability Officer, & General Counsel
Puget Sound Energy

Clare Breidenich
Carbon & Clean Energy Committee Director
Western Power Trading Forum

/s/ Vijay Satyal, Ph.D.
Vijay Satyal, Ph.D.
Deputy Director of Regional Markets
Western Resource Advocates

/s/ Nicole Hughes
Nicole Hughes
Executive Director
Renewable Northwest

CC: Laura Watson, Heather Bartlett, Claire Boyte-White, Bill Drumheller

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To: Stephanie Potts
Department of Ecology - Air Quality Program
P.O. Box 47600
Olympia, WA 98504-7600

From: Clean & Prosperous Institute
% Kevin Tempest, R&D Scientist
kevin@cleanprosperousinstitute.org

Date: May 15, 2022 (submitted electronically to CCALinkage@ecy.wa.gov)

Subject: Response to Ecology Public Comment Request on Cap-and-Invest Program Linkage

Clean & Prosperous Institute (CaPI) appreciates the opportunity to comment on linking the Climate Commitment Act with the Western Climate Initiative, which currently includes California and Québec. We look forward to evolving conversations about linkage and linkage design, especially as another major jurisdiction in North America, New York State, begins the process of designing and implementing their own Cap-and-Invest program.

Participant information

1. Name: Kevin Tempest
2. Email address: kevin@cleanprosperousinstitute.org
3. Organization or entity you represent: Clean & Prosperous Institute
4. Type of organization/entity: Environmental organization, Business / Industry

Overall comments on linking

CaPI believes formally linking carbon markets can bring significant short- and long-term benefits consistent with the multiple goals, aims, and requirements of the Climate Commitment Act. These benefits include program durability and stability with an aim towards interim and mid-century emissions limits, lower compliance cost via expanded opportunities for compliance, growth in the secondary market for allowances, and increased ambition across jurisdictions. By increasing confidence that auctions will avoid volatility and create more predictable, sustained revenue sources, linking presents a steady opportunity to achieve equity and close the emissions gap towards statutory climate limits. Broadening the market and compliance opportunities can and should encourage more clarity and ambition for Emissions-Intensive,

Trade-Exposed (EITE) entities. A linked market reduces economic and emissions leakage risks, and provides market incentives to finance improvements since similar costs and opportunities are shared by more competitors within the same industry.

As more jurisdictions like New York State take steps to set goal-oriented caps and leverage investment mechanisms, well-integrated programs with linkage are likely to create positive spillover effects. For more information on the current state of the Québec and California programs, which can inform some of the more intricate details of a linkage agreement as the process evolves, we recommend the following reports:

- Independent Emissions Market Advisory Committee (IEMAC). *2022 IEMAC Annual Report*. February 2023.
- Danielle Appavoo, Mariel Aramburu, Ricardo Chejfec, and Anil Wasif. *Meeting the Target - A Review of Québec's Cap-and-Trade System and Opportunities to Improve the Carbon Market.* Max Bell School of Public Policy at McGill University and the Institute of Fiscal Studies and Democracy at the University of Ottawa. December 2021.

Linkage criteria under consideration by Ecology:

The Department of Ecology has summarized the four major criteria defined in the Climate Commitment Act law (RCW 70A.65.210), that of any linkage agreement must meet:

Linkage Criteria #1: Ensure that California and Québec have provisions to ensure their programs provide benefits to vulnerable populations and overburdened communities.

Linkage Criteria #2: Ensure that linking would not have an overall negative effect on highly impacted communities in Washington, California, or Québec.

Linkage Criteria #3: Ensure that linking markets would not impact Washington's ability to achieve its greenhouse gas emissions reduction limits, including an analysis of pre-2020 unused allowances in a linked program.

Linkage Criteria #4: Ensure that linking markets would reduce the cost of compliance for covered businesses.

For the remainder of this comment letter, CaPI addresses these four criteria areas with emphasis on two overarching topics that Ecology has requested input on:

- Whether you think that connecting to other carbon markets would be beneficial to Washington.
- Recommended informational resources that could inform our analysis of the linkage criteria.

CaPI understands that additional, in-depth, public comment on linkage design elements is anticipated as a next step if Ecology decides to continue considering linkage of the Climate

Commitment Act with the Western Climate Initiative. This should and will include many key topics, including how pre-2020 unused allowances in a linked program may be treated under a full or partial linking agreement. We look forward to that opportunity to weigh in on key design elements that can strengthen the program and deliver the required benefits across all the criteria under consideration.

CRITERIA 1: Ensure that California and Québec have provisions to ensure their programs provide benefits to vulnerable populations and overburdened communities.

The Climate Commitment Act (RCW 70A.65.210) specifically instructs that "A linkage agreement approved by the department must":

> "(b) Ensure that the linking jurisdiction has provisions to ensure the distribution of benefits from the program to vulnerable populations and overburdened communities".

Recommended resources:

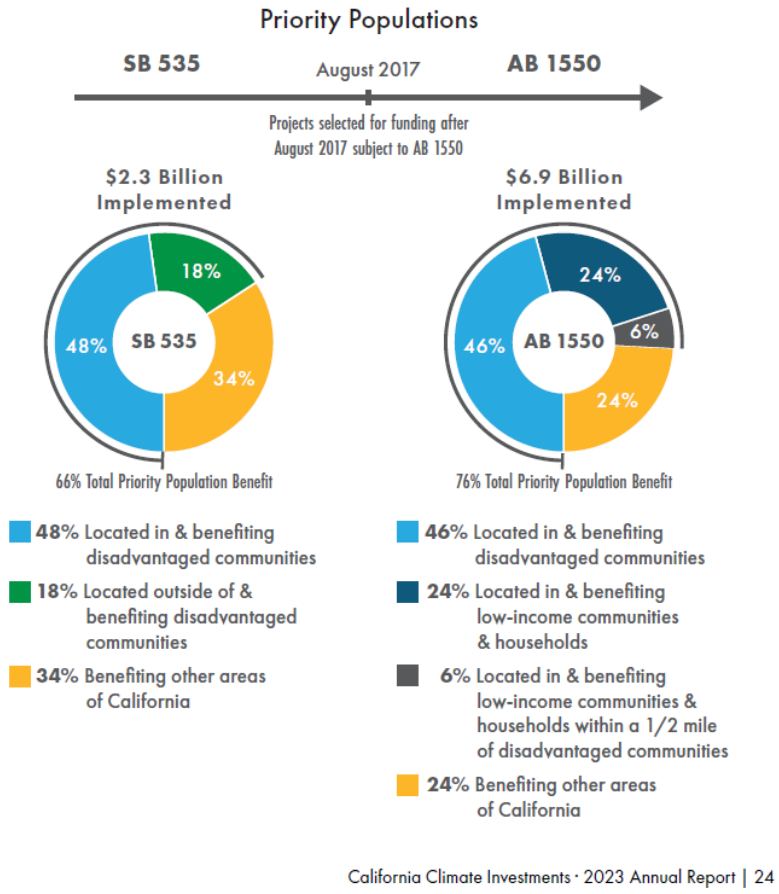
- California Climate Investment Annual Reports
- Quebec 2030 Plan for a Green Economy and Five-Year Implementation Plans.

CaPI commentary

The WCI market in total - through the direction set by California - has strong provisions to ensure program benefits are distributed to vulnerable or similar populations. California combines transparency through its CalEnviroScreen tool, and California Climate Investments data and annual reports, with direction on minimum revenue allocations. California has consistently and significantly exceeded these investment minimums with revenue allocated to date. While Québec's program does not contain such provisions that we could identify, an appreciably smaller share of its population meets similar criteria standards for vulnerability. Even without incorporating any overlay criteria from Québec, the combined investment impact within the Western Climate Initiative is *at least 50%* of revenue toward projects benefiting priority communities and households.

In California, of the $9.3 billion in implemented California Climate Investment funds to date, 73% have (or are benefitting) priority populations (see Figure below from their California Climate Investments Annual Report). This includes $6.9 billion in implemented funds since August 2017 under AB 1550, 46% of which are located in and are benefiting disadvantaged communities, 24% are located in and are benefiting low-income communities & households, and 6% are located in and are benefiting low-income communities & households within a ½ mile of disadvantaged communities.

Figure 5: Cumulative Investments Contributing to Statutory Investment Minimums



Source: 2023 Annual Report

The market-based mechanism of the cap, including allowance trading, emphasizes economic efficiency, seeking out the lowest cost opportunities to reduce emissions first. While these emissions sources are thoroughly documented as disproportionately co-located with low-income and disadvantaged communities, the shared cap does not dictate where emissions reductions occur. This is particularly true in the short-term before deep, cumulative reductions are required across the full economy. Co-location and a long-term binding cap provides some degree of confidence that the cap mechanism itself will help address environmental justice outcomes, particularly on longer-term trends.

To ensure equity outcomes, the primary approach is through targeted California Climate Investments (CCI) with revenue from allowance auctions. In California, SB 535 (through August 2017) and AB 1550 (since August 2017) have placed requirements on the share of these California Climate Investments located in and directly benefiting disadvantaged communities. AB 1550 has also specifically required minimum allocations for low-income communities. These communities are collectively referred to as “priority populations.” SB 535 and AB 1550 have required that at least 35% of California Climate Investments funding benefit these priority populations. AB 1550 amended the broader requirement of SB 535 to include minimums for

low-income communities and households, as well as more stringent requirements about projects being located within disadvantaged communities.

Québec's auction revenue, representing around 80% of planned funding for its Electrification & Climate Change Fund (FECC or ECCF), is the core mechanism for implementing its 2030 Green Economy Plan. CaPI could not find specific provisions for directly ensuring benefits to vulnerable populations or overburdened communities or even codified definitions of disadvantaged communities or similar. However, Québec has been noted as the province with the lowest poverty in Canada.[1] The 6.4% poverty rate in Québec is about half that of California (12.3%) according to official Government statistics. Québec has a lower share of non-white population (20.4%) than Canada as a whole (32.6%), or California (28.9%).[2] Québec has a lower share of Indigenous population (2.5%) than Canada (5.0%) as a whole, but a higher share than California (1.7% reporting as single race "American Indian and Alaska Native").

Through the February 2020 auction, Québec has raised $7.3 billion through auction proceeds. California has raised (or "appropriated") $22.6 billion. *Given this relative share revenue, even if only California's investments benefited priority populations, that would represent 55% of total revenue through the WCI platform providing direct benefits.*

CRITERIA 2: Ensure that linking would not have an overall negative effect on highly impacted communities in Washington, California, or Québec.

The Climate Commitment Act (RCW 70A.65.210) specifically instructs that "A linkage agreement approved by the department must":

> "(d) not yield net adverse impacts to either jurisdictions' highly impacted communities or analogous communities in the aggregate, relative to the baseline level of emissions".

Recommended resources:

- Zeise, Lauren and Blumenfield, Jared. Impacts of Greenhouse Gas emissions limits within disadvantaged communities: Progress towards reducing inequities. California Office of Environmental Health Hazard Assessment (OEHHA). February 2022.
- Hernandez-Cortes, Danae and Meng, Kyle C. Do environmental markets cause environmental injustice? Evidence from California's carbon market. Journal of Public Economics, Volume 217, January 2023.

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[1] "As in 2015, the poverty rate in Quebec (6.4%) in 2020 was significantly lower than in other provinces. In fact, in 2020, Québec was the only province with a rate below the national average of 8.1%. In Québec, the cost to maintain a modest, basic standard of living was lower than in other parts of the country. For example, the subsidized childcare program in Québec reduces childcare costs and facilitates labour force participation among women."

[2] By comparison, Washington's (https://www.census.gov/quickfacts/WA) population is 9.9% in poverty, 22.5% non-white, and 2.0% "American Indian and Alaska Native alone".

- Cushing, Lara, et al. Carbon trading, co-pollutants, and environmental equity: Evidence from California's cap-and-trade program (2011–2015). PLOS Medicine. July 2018.
    - Tempest, Kevin. Part 1: Revisiting the Key Findings of a California Carbon Market and Environmental Equity Study. Low Carbon Prosperity Institute. March 2021.
    - See also, Part 2: Revisiting the Key Findings of an influential Carbon Trading and Environmental Equity Study – Additional Details.
- Pastor, Manuel et al. Up in the Air: Revisiting Equity Dimensions of California's Cap-and-Trade System. USC Dornsife. February 2022.

CaPI commentary

We quote from the references above to demonstrate that cap programs likely yield net benefits to highly impacted communities, which can be strengthened with a targeted reinvestment mechanism. Some of the published research has raised legitimate concerns about *the distribution of benefits*, especially by median group characteristic but not by net population, in California's program from facility emissions. These differences are focused between communities that are, by median characteristic, relatively disadvantaged versus the general population. While these are important studies asking relevant questions, they typically do not take into account the impact of investments or mobile pollution sources (cars and trucks, primarily) that are also key components of the program. In addition, none of these studies demonstrate, in the language of the linkage requirements of the Climate Commitment Act:

> "net adverse impacts to either jurisdictions' highly impacted communities or analogous communities in the aggregate, relative to the baseline level of emissions"

In fact, they all display net improvement, even if not uniformly or equitably distributed, even in the program's early years, when net improvement relative to the baseline was less likely than in more recent or future years.

Work by EDF and IETA (A Roadmap for Linkage. Aligning California and Washington's Carbon Prices. IETA and Environmental Defense Fund. July. 2022), referencing the peer-reviewed literature, provides a foundation that linking is a pathway to increased program ambition. This is an important consideration of the impact of linking when compared to a single state's own emissions reduction impact. To the extent that linking also increases the long-term stability and durability of the program and encourages other jurisdictions to take similar action, the net benefits will be extended. The opportunity to emphasize these factors (increased shared ambition, program uptake in other jurisdictions) should be a part of Ecology's decision to proceed with a linkage design that meets all of these criteria.

Quotes of highest relevance from each reference:

Zeise, Lauren and Blumenfield, Jared. Impacts of Greenhouse Gas emissions limits within disadvantaged communities: Progress towards reducing inequities. California Office of Environmental Health Hazard Assessment (OEHHA). February 2022.

- “The greatest beneficiaries of reduced emissions from HDVs and facilities subject to the Cap-and-Trade Program have been in communities of color and in disadvantaged communities in California, as identified by CalEnviroScreen (CES). This has reduced the emission gap between communities with high and low CES scores, but a wide gap still remains.”
- “We found that facilities subject to the Cap-and-Trade Program are three times more likely to be located in or near disadvantaged communities and communities of color. As a result, these communities also have the potential to benefit most from reductions in co-pollutant emissions.”
- “We evaluated the change in emissions from Cap-and-Trade-covered facilities in 2017 compared to 2012 and found a 45-fold greater reduction of PM2.5 exposure in high-scoring versus low-scoring communities. We also found that the majority (68%) of health benefits from reductions in emissions from facilities subject to the Cap-and-Trade Program have been for people of color. Although we observed statewide reductions in GHGs, PM2.5, and air toxics, the relationship between facility emissions of GHGs and co-pollutants is variable by sector, pollutant, and year.”
- “There was a 45-fold greater reduction of PM2.5 exposure concentration in high-scoring (0.18 µg/m3) versus low-scoring (0.004 µg/m3) CES census tracts (Figure 12) and half the avoided premature deaths occurred in high-scoring CES census tracts, 55 (37 – 73 95% CI) out of 113 total avoided premature deaths (Figure 13).”
- “The relationship between facility emissions of GHGs and co-pollutants is highly variable by sector and pollutant.”

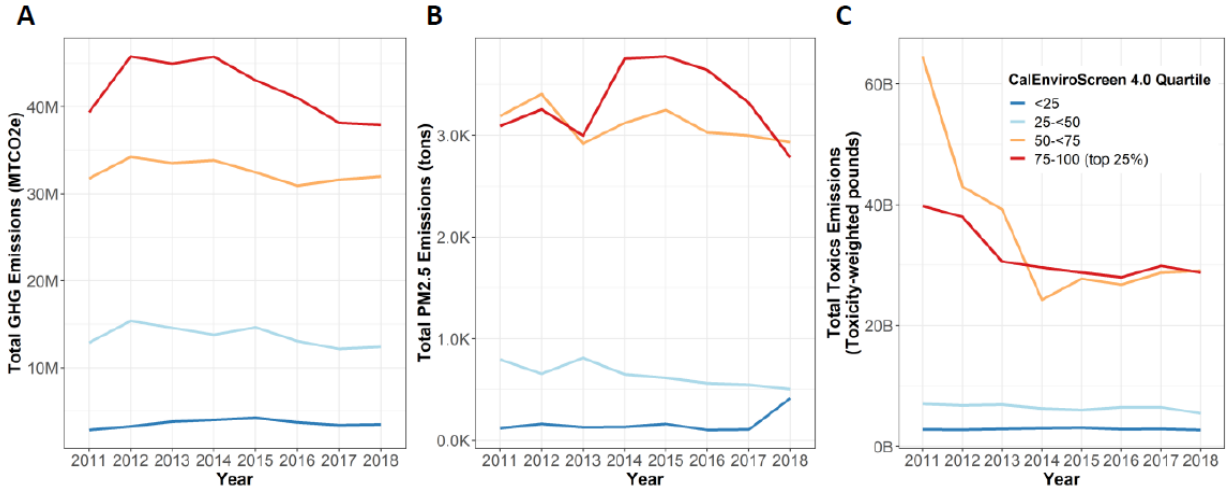


Figure 16. Trend in Total GHG, PM2.5, and Air Toxic Emissions from Facilities between 2011–2018 by CalEnviroScreen 4.0 Quartile

- “[Diesel Particulate Matter] DPM concentrations have broadly decreased for all Californians, with DPM concentrations continuing to narrow between 2011 and 2019 with the greatest benefits for the highest-scoring CES census tracts. However, although overall DPM concentrations have fallen from 2000 to 2019, there is still an equity gap in DPM concentrations, as higher-scoring CES communities have higher concentrations than are found in lower-scoring communities. The challenge in closing this gap

remains…This suggests that implementation of zero-emission HDVs has the potential to significantly reduce the disparity in DPM exposure by CES score and by race/ethnicity."

Hernandez-Cortes, Danae and Meng, Kyle C. Do environmental markets cause environmental injustice? Evidence from California's carbon market. Journal of Public Economics, Volume 217, January 2023.

- "Employing a definition of a "disadvantaged" zip code that serves as a basis for California's EJ policies, we report three EJ gap findings from our sample facilities. First, consistent with EJ concerns in the lead up to the C&T program's introduction, we find not only were there baseline EJ gaps across criteria air pollutants in 2008, but that gaps were widening in the 2008–2012 period before the program. Second, the C&T program has slowed down these previously widening EJ gaps so much that they have been narrowing since 2013. Between 2012–2017, the program reduced California's EJ gap by 7%, 6%, and 10% annually for PM2.5, PM10, and NOx, respectively. Third, while EJ gaps have narrowed, they have not been eliminated: by 2017, the C&T program returned EJ gaps roughly to 2008 levels."
- "There is growing concern that market-induced spatial reallocation of pollution could widen existing pollution concentration gaps between disadvantaged and other communities. We examine how this "environmental justice" (EJ) gap changed following the 2013 introduction of California's carbon market, the world's second largest and the most subjected to EJ critiques. We estimate that the program lowered GHG, PM2.5, PM10, and NOx emissions by 3–9% annually between 2012–2017 for sample industrial facilities regulated only by the carbon market."
- "We find that C&T reduced emissions annually between 2012–2017 at an average rate of 9%, 5%, 4%, and 3% for GHG, PM2.5, PM10, and NOx, respectively, across sample facilities."
- "We find that disparities in local air pollution concentrations from industrial facilities subject only to California's carbon market fell following its introduction. This result brings causal evidence to a debate that continues to shape one of the world's most ambitious climate policies and climate policies elsewhere."

Cushing, Lara, et al. Carbon trading, co-pollutants, and environmental equity: Evidence from California's cap-and-trade program (2011–2015). PLOS Medicine. July 2018.

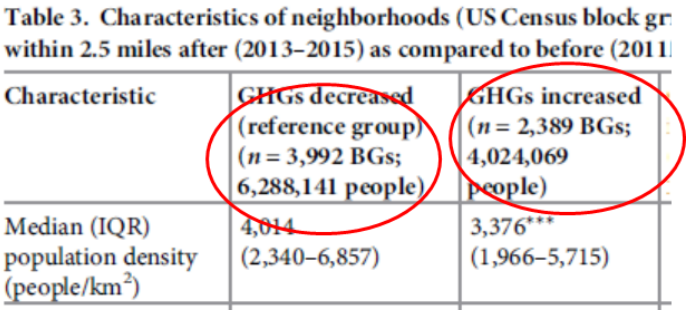
- 

Table 3. Characteristics of neighborhoods (US Census block gr within 2.5 miles after (2013–2015) as compared to before (2011

Characteristic	GHGs decreased (reference group) (n = 3,992 BGs; 6,288,141 people)	GHGs increased (n = 2,389 BGs; 4,024,069 people)
Median (IQR) population density (people/km^2)	4,014 (2,340–6,857)	3,376*** (1,966–5,715)

- "Prior analyses of emission trading programs found little evidence that they produced socially inequitable outcomes. For example, studies of the US Acid Rain Program to

reduce sulfur dioxide emissions from coal-fired power plants and of Southern California's Regional Clean Air Incentives Market (RECLAIM) program to reduce NOx and SOx emissions from large facilities such as power plants, refineries, and manufacturing facilities found no evidence that the locations of emissions or purchases of allowances were disparate with respect to the racial/ethnic makeup or income of surrounding neighborhoods."

- "One limitation of our analysis is that it was restricted to regulated industries and was not able to include an assessment of the emission patterns and equity implications of GHG reductions from transportation-related sources. In addition, ongoing investments of a significant portion of California's cap-and-trade revenue in disadvantaged communities as mandated by law [18] to mitigate climate change could also potentially incentivize deeper local GHG and co-pollutant reductions in the future."
- "There was a larger aggregate decrease in local GHG emissions in 2015 compared to prior years (see S2 Fig), suggesting that greater reductions may be achieved going forward as the cap is lowered further."

Tempest, Kevin. Part 1: Revisiting the Key Findings of a California Carbon Market and Environmental Equity Study. Low Carbon Prosperity Institute (*which is now the Clean and Prosperous Institute*). March 2021.

- "People Of Color (POC) and other DACs are disproportionately located near polluting facilities. This is clearly shown in Table 1 of the original study (Figure 1) and is a known and widespread societal problem. Decreasing emissions from these facilities is essential to achieving environmental justice."
- "At the population level, the study found substantially more of the population (6.3 million) experienced decreasing emissions from nearby facilities (within 2.5 miles) than experienced increasing emissions (4.0 million), a net of 2.3 million people, as shown in Table 3 from the original study."
- "A review of the study results indicates a significant possibility that all groups considered in the study experienced net benefits. The same study results indicate that the white population near these facilities could have been more likely to experience emission reductions in the early years (Figure 3), highlighting the potential inequity in the distribution of net benefits."
- "More recent data indicates either sharp or continued improvements in overall program outcomes, indicating the original study methodology should be applied to more recent program results. In doing so, focusing on net population exposure and statistical significance is critical."
- From Part 2:
    - "The only data presented on net population impacts show a net of nearly 2.3 million people experiencing GHG decreasing over the timeframe examined (as reproduced in the table below). The authors do not present this level of net population detail by population characteristic or for other pollution types."

Pastor, Manuel et al. Up in the Air: Revisiting Equity Dimensions of California's Cap-and-Trade System. USD Dornsife. February 2022.

- "In nearly all cases, the [disadvantaged communities] DACs saw some improvements in terms of reduced pollutants from cap-and-trade facilities, but these improvements were less than those in the non-DACs, with many of the contrasts being statistically significant."
- "Figure 11 shows the demographic pattern by the percentage change in Covered GHG; in this case, we can also include the population not near any facilities as a baseline comparison. As can be seen from that, there is a general environmental justice issue with regard to who lives near a facility or not."

Figure 12. Block groups ranked by % change in emissions for four pollutants, between 2011-2012 and 2016-2017 (population-weighted)

		percent people of color in community	percent below 200% poverty in community	percent linguistically isolated in community	percent w/ less than HS in community	average CES percentile score of communities
PM2.5	Not Near a Facility	60%	32%	9%	17%	47%
	Most improved	71%	37%	12%	22%	62%
	Middle group	73%	45%	15%	27%	67%
	Least improved	71%	39%	11%	24%	64%
PM10	Not Near a Facility	60%	32%	9%	17%	47%
	Most improved	70%	36%	11%	22%	62%
	Middle group	73%	44%	15%	27%	65%
	Least improved	71%	40%	11%	24%	65%
NOX	Not Near a Facility	60%	33%	9%	17%	47%
	Most improved	68%	35%	11%	20%	58%
	Middle group	69%	39%	11%	23%	63%
	Least improved	73%	43%	14%	27%	64%
SOX	Not Near a Facility	60%	33%	9%	17%	47%
	Most improved	68%	37%	13%	22%	63%
	Middle group	68%	39%	11%	23%	61%
	Least improved	76%	42%	14%	27%	66%

-
    - *Note from CaPI: The difference between groups directly impacted (whether improved or not) and those not near a facility tends to be much larger than the difference between those not directly affected ("Not Near a Facility") and those impacted (whether improved or not). The authors acknowledge that net benefits across all pollution types from covered facilities were observed on an aggregate average. This highlights that these net benefits are concentrated in communities that are higher than the state average in people of color, higher poverty, more linguistically isolated, lower than HS education, and higher CES percentile. The research does emphasize that* ***within those more vulnerable populations and communities****, the improvement trends were worse for higher shares of vulnerable populations.* ***Critically, a missing element continues to be population weighting to determine net exposure****. That is an element the OEHHA findings cover and point to substantial improvement (and continued opportunity for more through the sustained ambition of the program).*

- "In general, median improvements in pollution levels occurred in the DAC neighborhoods that fall into this broad group, but they were not as strong as in non-DAC neighborhoods impacted by cap-and-trade."

CRITERIA 3: Ensure that linking markets would not impact Washington's ability to achieve its greenhouse gas emissions reduction limits, including an analysis of pre-2020 unused allowances in a linked program.

The Climate Commitment Act (RCW 70A.65.210) specifically instructs that "A linkage agreement approved by the department must":

> "(d) Not adversely impact Washington's ability to meet the emissions-reduction commitments established in RCW 70A.45.020."

Recommended resources:

- Office of Governor Jay Inslee. *Responding to the climate crisis and building Washington's clean energy future*. Policy Brief. December, 2021.
    - Even with the passage of the Climate Commitment Act, a 6.1 million metric ton gap in projected emissions was anticipated in 2030.
- Final Regulatory Analyses for Chapter 173-446 WAC, Climate Commitment Act Program:
- A Roadmap for Linkage. Aligning California and Washington's Carbon Prices. IETA and Environmental Defense Fund. July, 2022.

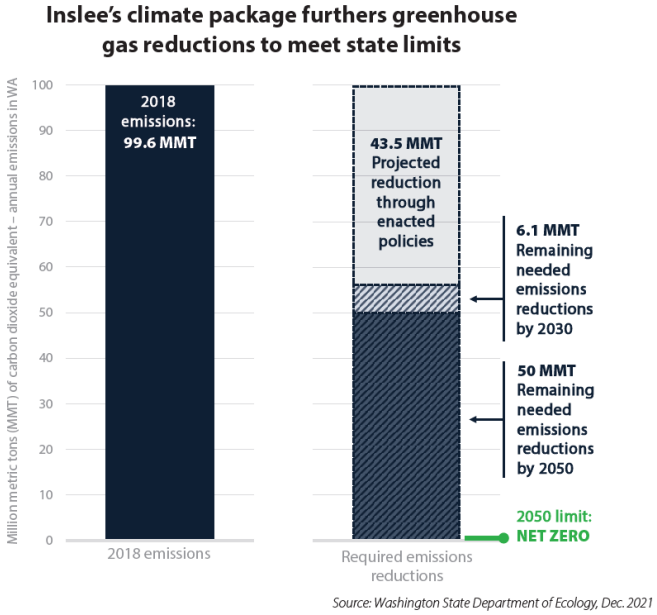
CaPI commentary

Regarding emissions targets, Washington is not on track to meet 2030 emissions limits from enacted policies alone. However, the ability to meet both those and later single-year limits depends on the durability and viability of the Climate Commitment Act. Consider the following:

- Because of the cumulative nature of emissions compliance (multi-year compliance periods and the ability to bank allowances, including those shifted forward from future years), a single-year emissions gap in 2030 is expected to persist on cap-covered sources without additional action (Final Regulatory Analysis).
    - Specifically, the central scenario projections (adopted rule, no frontloading of APCR allowances, no linking) show 2026 emissions from covered parties at 43.8 MtCO2e (1.5 MtCO2e below the cap, 1.1 MtCO2e below a scenario with linking starting in 2030) and 2029 emissions from covered parties are 36.5 MtCO2e (4.4

MtCO2e above the cap and 1.95 MtCO2e below a scenario with linking starting in 2030).

- This would be additional to any emissions gap outside of the Climate Commitment Act and other enacted policies (Office of the Governor).



- Whether the program links or not represents a small share of this gap.
- Closing the gap remains an important focus of effective investment, including leveraging unprecedented Federal opportunities and reinvesting revenue from the Climate Commitment Act to reduce carbon pollution. The effectiveness of those investments would be hampered by volatile or unpredictable revenue. Linking is likely to increase the predictability and stability of revenue, important for establishing and maintaining emission-reducing programs.
- Beyond investments, Ecology retains the authority to adjust emissions caps and harness the Emissions Containment Reserve mechanism to enhance the likelihood of meeting the single-year 2030 target.
- If those combined efforts are insufficient to close the anticipated gap, the legislature would likely need to take additional action to reduce emissions from specific sectors.

In addition, confidence in meeting future targets depends on the durability of the Climate Commitment Act. We expect this durability to be enhanced by any linkage agreement meeting all the required criteria. We also anticipate that any linking requirement would not occur without reaffirming shared ambition, including specific emissions limit targets in 2030 and beyond, and would provide at least an opportunity and, quite possibly, a strong incentive to enhance the environmental integrity of the caps in other jurisdictions. The issue paper from IETA and EDF in 2022 points to peer-reviewed literature highlighting this likelihood:

- "Fundamentally, formal linkage leads to a single allowance price across all linked jurisdictions, thereby reducing total costs to final consumers without sacrificing

environmental benefits. In turn, these cost reductions make it easier for regulators to achieve ambitious climate targets and lower overall cap levels."

- "several authors noting that formal linkage can enhance overall ambition by incentivizing more aggressive caps."
- "Indeed, many argue that formal linkage leads to enhanced ambition by facilitating more aggressive caps. The first way is through endowing a sense of responsibility towards enhanced ambition."

With New York State well into the process of establishing a Cap-and-Invest program, one important role of the Climate Commitment Act is to continue to foster collective ambition and apply best practices. Doing this requires a program that delivers benefits cost-effectively, with emissions integrity of the cap, and with outcomes that improve environmental justice. We believe that linkage increases program viability and durability, which has multiplier effects of priming for expanded participation both in reinforcing long-term participation of jurisdictions with a program and in standing up new programs in new jurisdictions.

CaPI wants to also reiterate discretion authorized by the legislature, if needed, that:

> "In the event that the department determines that a full linkage agreement is unlikely to meet the criteria, it may enter into a linkage agreement with limitations, including limits on the share of compliance that may be met with allowances originating from linked jurisdictions and other limitations deemed necessary by the department."

CRITERIA 4: Linking would reduce the cost of compliance for covered businesses.

The Climate Commitment Act specifically instructs in RCW 70A.65.210 that subsection (3) that: "A linkage agreement approved by the department must: (a) Achieve the purposes identified in subsection (1) of this section;" referencing the following specific criteria:

> "the department shall seek to enter into linkage agreements with other jurisdictions with external greenhouse gas emissions trading programs in order to: (a) Allow for the mutual use and recognition of compliance instruments issued by Washington and other linked jurisdictions; (b) Broaden the greenhouse gas emission reduction opportunities to reduce the costs of compliance on covered entities and consumers; (c) Enable allowance auctions to be held jointly and provide for the use of a unified tracking system for compliance instruments; (d) Enhance market security; (e) Reduce program administration costs; and; (f) Provide consistent requirements for covered entities whose operations span jurisdictional boundaries."

Recommended resources:

- Final Regulatory Analyses for Chapter 173-446 WAC, Climate Commitment Act Program: This economic analysis, commissioned as part of rule-making and completed

by Vivid Economics estimates under the central scenario (adopted rule, no frontloading of APCR allowances, no linking), was for an allowance price of $76 in 2026 and $89 in 2029. With anticipated linking, even if delayed to 2030, modeled allowance prices were $12 lower in 2026 and $23 lower in 2029.

- A Roadmap for Linkage. Aligning California and Washington's Carbon Prices. IETA and Environmental Defense Fund. July, 2022. Citing peer-reviewed literature, this issue paper states that:
    - Fundamentally, formal linkage leads to a single allowance price across all linked jurisdictions, thereby reducing total costs to final consumers without sacrificing environmental benefits;
    - In turn, these cost reductions make it easier for regulators to achieve ambitious climate targets and lower overall cap levels.
- The Québec Cap-and-Trade System for Greenhouse Gas Emission Allowances Frequently Asked Questions
    - "Market linking is essential for Québec since a standalone local market would not have the requisite size needed for viability in the medium and long terms.

      As the number of partners in the system increases, so does the number of emission allowances. This makes it easier for emitters and participants to acquire emission units at lower cost.

      Additionally, a linked market makes it possible to share system costs such as market monitoring and development, management and maintenance of the CITSS and the auction platform."

CaPI commentary

The statutory direction to Ecology references reducing the cost of compliance on covered entities and consumers in the context of broadening greenhouse gas emissions reduction opportunities. It is very likely, supported by economic theory and program-specific modeling, that broadening the marketplace leads to lower allowance prices and overall costs of compliance. In particular, linkage is anticipated to reduce costs of compliance in jurisdictions that face higher independent compliance costs. Recent auctions and economic modeling support that the stringency of Washington's program and the source of emissions both tend towards higher independent allowances prices than the combined California and Québec market. Although consumers do not face a direct "cost of compliance," some share of compliance costs is expected to be passed through to consumers. Therefore, reduced compliance costs would be anticipated to correlate with net savings for consumers. The department can likely assume that linking will inherently generate cost savings through broader market participation and coverage.

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May 15, 2023

Ms. Stephanie Potts
Cap-and-Invest Program Linkage Planner
Washington Department of Ecology
300 Desmond Dr SE, Lacey, WA 98503

Re: The Department of Ecology's decision to pursue linkage with California and Québec's carbon markets.

Dear Ms. Potts,

We are grateful to the Department of Ecology (the Department) for its thorough outreach and stakeholder engagement process to offer feedback on linkage. Climate Solutions is a nonprofit organization working to accelerate clean energy solutions to the climate crisis. The Northwest is a hub of climate action, and Climate Solutions is central to the movement as a catalyst and advocate.

Linkage with California and Québec's cap-and-invest markets comes with a broad set of nuanced opportunities and challenges. Linking programs can reduce administrative burdens for the state, create a more robust and efficient market, and ultimately reduce costs for customers.[1] These opportunities amount to what Climate Solutions sees as the greatest benefits of linkage—its potential for increasing the longevity and durability of Washington's program and for influencing Québec and California to increase the environmental integrity of and environmental justice provisions within their laws.

However, our support for linkage is contingent on Washington, California, and Québec's ability to achieve the criteria as laid out by the Department and address some of the greatest barriers and potential harms that may come from linkage. We are concerned that if California and Québec's programs remain unchanged, linkage would threaten Washington's ability to meet its statutory emissions reductions requirements and weaken potential benefits of the program for vulnerable populations. As the Department weighs the benefits and challenges of linkage, it is critical to holistically consider options to enter into a linkage agreement while eliminating these concerns. Climate Solutions offers three key recommendations for the Department, in addition to other considerations to help inform each criteria: **conduct an environmental justice assessment to analyze the impact of linkage on overburdened communities and identify**

[1] International Emissions Trading Association & Environmental Defense Fund, "A Roadmap for Linkage." July 2022. https://ieta.org/resources/Resources/Reports/ARoadmapforLinkageJuly2022.pdf.

strategies to eliminate harm and maximize benefits of linkage; avoid linking until California's law has been extended to 2050; and evaluate restricted linkage as an option to limit the number of allowances flowing into Washington.

In part one of this letter, we discuss the potential benefits of linkage. In part two, we make recommendations that may help attain the full potential of these benefits and outline key considerations for the Department to assess whether linkage meets the four criteria.

I. Should Washington Pursue Linkage with California and Québec?

Provided that the necessary changes are implemented to meet the criteria in statute, Climate solutions supports linkage between Washington, California, and Québec for its potential to increase the longevity of Washington's cap-and-invest program and influence California and Québec's programs to become more ambitious in their greenhouse gas reductions and more effective in their protections for overburdened communities.

1. Linkage can enhance program durability through integrating into a larger market that reduces the cost of greenhouse gas emissions reductions and enhances public support.

First and foremost, linkage may enhance program durability by making program administration more efficient and cost effective for the Department.[2] By joining market operations and streamlining auctions into one larger market, the administration process will be more efficient and less costly—especially for smaller jurisdictions like Washington.

Additionally, various analyses, including the Vivid Economics report requested by the Department and numerous other pieces of research, indicate that linkage drives down the cost of allowances through fostering a more robust market.[3] These lower allowance prices enable jurisdictions to pursue the lowest-cost emissions reductions while maintaining emissions reductions per the trajectory of the cap.[4] The benefit of allowance price reductions is often framed around reducing compliance costs for businesses, however we view linkage's price impact as an approach for lowering costs for end-customers and safeguarding the longevity of

[2] International Emissions Trading Association & Environmental Defense Fund, "A Roadmap for Linkage." July 2022. https://ieta.org/resources/Resources/Reports/ARoadmapforLinkageJuly2022.pdf.
[3] Department of Ecology, "Washington Climate Commitment Act: Summary of economic and market modeling and analysis of the proposed Cap and Invest program." July 2022. https://app.leg.wa.gov/ReportsToTheLegislature/Home/GetPDF?fileName=Vivid-CCA-Report_5a57f91c-6b59-468b-9689-2521a1d6daf2.pdf.
[4] ICAP & PMR, "Emissions Trading in Practice: A Handbook on Design and Implementation (2nd Edition)." April 2021. https://icapcarbonaction.com/system/files/document/ets-handbook-2020_finalweb.pdf.

Washington's program. Certain businesses are already demonstrating their intent to pass the costs of the CCA down to customers, risking the public's buy-in into the program at a time when the new investments and programs generated through CCA revenue are still getting off the ground. By linking with California and Québec's programs, however, the public will be able to see and experience real emissions reductions – through investments and new incentive programs, business innovation, and air pollution improvements – at a lower cost.

Furthermore, linkage may also help to reduce the risk of reaching the price ceiling and prevent businesses from exceeding the cap on pollution. As part of the CCA, lawmakers included a price ceiling mechanism modeled after California's program, whereby the Department allows for the sale of price ceiling units at a fixed price to keep costs from rising. Although this is an effective mechanism to contain costs, these price ceiling units are *above* the cap and would decelerate Washington's emissions reductions. Washington is currently below the price ceiling. However, given the strong demand demonstrated through the first auction and the Vivid Economics modeling that projects a consistent rise in allowance prices, the state is potentially at risk of reaching the ceiling.[5] Linkage with a broader, more established market would ultimately help to preempt this risk and ensure Washington's market avoids reaching the ceiling price. Thus, linkage may support Washington in maintaining its ambitious cap trajectory. However, it is critical to note that California's large pool of banked allowances also threatens Washington's ability to achieve its emissions reduction requirements under this program. We will discuss potential options for limiting this risk in more detail below.

2. *Under a strong linkage agreement, Washington could influence California and Québec to make their programs more ambitious in greenhouse gas reductions requirements and protections for overburdened communities.*

Unlike durability where the impact of linkage is more measurable, the potential benefit of influencing other states to improve their laws is largely contingent on the strength of Washington's linkage agreement with California and Québec, and their independent decisions to improve their respective programs. Specifically, we see linkage as an opportunity to influence California and Québec to more closely align with the ambition of Washington's law.

When designing Washington's CCA, lawmakers built on California's law, replicating the strengths of California's law where applicable and learning from its unintended consequences.

[5] Department of Ecology, "Washington Climate Commitment Act: Summary of economic and market modeling and analysis of the proposed Cap and Invest program." July 2022. https://app.leg.wa.gov/ReportsToTheLegislature/Home/GetPDF?fileName=Vivid-CCA-Report_5a57f91c-6b59-468b-9689-2521a1d6daf2.pdf.

For example, in response to concerns that California's law enables hotspots of localized air pollution in already overburdened communities, the CCA centers environmental justice and benefits to overburdened communities throughout the law. This includes creating a new program to cut criteria pollution in overburdened communities, building in oversight and assessment by the Environmental Justice Council, carving out funds specifically for Tribal climate adaptation, and more. Washington also has a more ambitious cap than both California and Québec and created an offset program that is under the cap (rather than outside of the cap), which helps to maintain the pace of emissions reductions and avoid offsets leading to additional pollution.

Given the criteria laid out in statute for linkage to benefit overburdened communities and to maintain Washington's ability to meet its emissions reduction targets, pushing California and Québec to align with the ambition of Washington's law is essential for a linkage agreement. The Independent Emissions Market Advisory Committee notes many options California has to strengthen its law, whether through limiting the supply of California's allowances, requiring steeper emissions reductions in overburdened communities, and/or extending its program to 2050.[6] It may be possible to implement some of these changes through conditions outlined in a formal linkage agreement, or it may be that the external pressure from Washington and other states that are considering cap-and-invest programs is enough to encourage California to make these changes on their own accord. In whichever scenario, if California and Québec strengthen their laws, linkage may accelerate greenhouse gas reductions on a regional scale and simultaneously enable greater improvements in air quality at a local level.

Finally, Washington's decision to link with California and Québec may also spur other states to pursue cap-and-invest programs to drive down their emissions. A broader market enables greater efficiencies and reduced administrative burdens, and seeing a state like Washington successfully join this combined market would make the prospect of developing a cap-and-invest program and linking with the larger market more politically feasible for states with smaller economies.

II. Criteria Assessment

Realizing the full potential of these benefits requires that, in pursuit of linkage, the Department establish a strong agreement with California and Québec to ensure linkage meets the following

[6]IEMAC, "2022 Annual Report of the Independent Emissions Market Advisory Committee." February 3, 2023. https://calepa.ca.gov/wp-content/uploads/sites/6/2023/02/2022-ANNUAL-REPORT-OF-THE-INDEPENDENT-EMISSIONS-MARKET-ADVISORY-COMMITTEE-2.pdf?emrc=6afe11.

statutory criteria. We offer recommendations for the Department to consider as it assesses the impact of linkage, with our topline recommendation for each criterion designated as "key recommendations." Many of the recommendations we discuss are provided in more detail in the letter submitted by the Stockholm Environment Institute and want to affirm our strong support for their recommendations.

1. Ensure that California and Québec have provisions to ensure the distribution of benefits from the program to vulnerable populations and overburdened communities.

<u>Key Recommendation</u>: Conduct an Environmental Justice Assessment to evaluate the impacts of linkage and identify opportunities to reduce/minimize harm and maximize benefits to overburdened communities.

We urge you to determine whether this current decision-making process around pursuing linkage, the rulemaking, the development of a linkage agreement, or other elements of the linkage process might be considered a Significant Agency Action to enable the use of an Environmental Justice Assessment to better understand impacts to overburdened communities.[7] Throughout this assessment, the Department should work closely with the Council to identify opportunities to maximize benefits and minimize harm to communities as part of a linkage agreement and through complementary policies. An EJ Assessment would also be useful to assess the impacts on overburdened communities under different linkage scenarios. For example, the assessment could identify the potential for benefits or impacts in a restricted linkage versus full linkage scenario, or scenarios where California addresses its allowance bank versus continuing with the program as it exists today. All of these scenarios will have differing impacts on vulnerable populations, and an Environmental Justice Assessment can help evaluate these various impacts.

Identify potential impacts, if any, of Washington and California's different definitions of highly impacted communities in their laws.

Washington's and California's laws include different definitions of overburdened communities, which ultimately could lead to different outcomes and impacts of the program on vulnerable populations. The CCA defines overburdened communities as geographic areas "where vulnerable populations face combined, multiple environmental harms and contaminants through multiple pathways" and references other definitions under various laws to more comprehensively capture communities overburdened with health stressors including highly

[7] Ecology, "Implementing the HEAL Act: Environmental justice assessments." 2023. https://ecology.wa.gov/Events/ProgA/Environmental-Justice/EJ-Assessments.

impacted communities and communities on “Indian country." [8] This broad-reaching definition is in addition to the overburdened communities identified specifically for implementation of Section 3 to ensure that benefits from investments can be applied more broadly to overburdened communities across the state, and more specifically to those communities impacted by criteria pollution.

California’s law, however, appears more narrowly defined, resulting in a set number of communities identified as “disadvantaged,” akin to Washington’s overburdened community identification process.[9] The Department should consider what impact these different definitions might have on measured outcomes—for instance, the Department could evaluate whether there are gaps in California definitions and, subsequently, in the benefits accrued to overburdened and vulnerable populations.

The Department should clearly outline the scope of benefits it plans to evaluate.
The Department should clearly outline the scope of benefits it aims to evaluate. Health benefits should remain top priority, given concerns raised around California’s impact (or lack thereof) on criteria pollution. However, the Department could also seek to identify a broader suite of benefits, including economic benefits and more, that are linked to, but separate from air quality and health improvements. For example, in Washington’s law, gas utilities must consign an increasing portion of their allowances to auction to eliminate the cost burden of the CCA on low-income customers and potentially invest in decarbonization and efficiency projects. If these investments from gas utilities were designed to prioritize cost-assistance for low and moderate-income homes, this would not only result in health benefits, but also significant economic benefits from decarbonizing and mitigating the burden of the rising cost of gas. The Department should analyze similar provisions in California’s and Québec’s laws to understand the range of potential benefits that could reach communities.

The benefits of the *investments* from the cap-and-invest revenue could also extend beyond improved health outcomes. Investments in clean buses and public transportation improvements, for example, could offer significant benefits for access to resources and jobs and improved quality of life if designed properly to prioritize overburdened communities. Given these potentially wide-ranging impacts and benefits of these cap-and-invest programs, it's important that the Department identifies its scope early on.

Consider a breadth of research, perspectives, and program elements to identify potential

[8] RCW 70A.65.10
[9] CalEPA, “California Climate Investments to Benefit Disadvantaged Communities.” 2023. https://calepa.ca.gov/envjustice/ghginvest/.

benefits.

To assess whether California's and Québec's programs benefit vulnerable populations and overburdened communities, the Department should holistically consider the body of literature and research available, while recognizing Washington's different context. The Department should isolate the impacts and/or benefits that stem from:

- The cap-and-invest program itself. Identify studies that assess the impact of the cap-and-invest program on greenhouse gas reductions and local air pollution reductions in overburdened communities.[10]
- The investments from the cap-and-invest revenue.[11] Identify the different programs California and Québec have funded through their revenue. Identify what percentage of their funds have reached disadvantaged communities and the impact of those funds on any quantifiable or qualitative benefits to communities, air quality, health, greenhouse gas reduction, and more.
- The confluence of these two elements – how might the program itself and the programs created through new cap-and-invest revenue streams compound and accelerate air quality benefits? How might investments bolster emissions reductions at polluting facilities?

Public comment letters from open comment periods in California and Québec could also be a useful tool in understanding the impacts of the program on communities. But most critically, the Department should engage directly with overburdened community members and community-based organizations in each of these jurisdictions to understand their experiences with these programs, identify the benefits they want to see in their communities, and to find ways to integrate these community benefits into a linkage agreement.

2. Linking would not have an overall negative effect on highly impacted communities in Washington, California, or Québec.

Key Recommendation: Once linkage is deemed a Significant Agency Action, use the Environmental Justice Assessment to identify benefits and offer insight into potential negative impacts on highly impacted communities of cap-and-invest programs and linkage.

[10] E.g., Hernandez-Cortes, D. & Meng, K., "Do Environmental Markets Cause Environmental Injustice? Evidence from California's Carbon Market." February 23, 2022. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4041857; Walch, R., "The Effect of California's Carbon Cap and Trade Program on Co-pollutants and Environmental Justice: Evidence from the Electricity Sector." November 1, 2018. https://www.dropbox.com/s/5s9rrhd2d493mjg/Walch_CA_CAT_copollutants.pdf?dl=0.

[11] CalEPA, "California Climate Investments Using Cap-and-Trade Auction Proceeds." April 2023. https://ww2.arb.ca.gov/sites/default/files/auction-proceeds/cci_annual_report_2023.pdf

This second criterion is inherently linked with the first criterion – it is important that linkage enables benefits to flow to overburdened communities in California, Québec, and Washington, while safeguarding against any harms that may come with a larger allowance market and lower-cost allowances. Given the overlap with the first criterion, we recommend relying on similar sources and considerations. Namely, the Department should conduct an Environmental Justice Assessment that considers potential negative impacts (and benefits) and means to mitigate them, meet with communities and community-based organizations in California and Quebec, reference papers and articles, interviews, public comments and more to understand communities' perspectives on these cap-and-invest programs and their impacts on communities.

Assess and compare the full suite policies in California, Québec, and Washington to improve criteria pollution, air quality, and health disparities.

Lawmakers included Section 3 in Washington's CCA to regulate and reduce criteria pollution in overburdened communities as a direct response to criticism that California's program enabled businesses to keep polluting in these communities. The Department should consider whether California and Québec have similar policies to reduce localized criteria pollution alongside greenhouse gas pollution, such as California's Community Air Protection Program.[12] As part of this analysis, the department could compare the pollutant thresholds used to identify overburdened communities, identify any laws or regulations to curb air toxics in addition to criteria pollutants, and the degree to which communities were involved in program design. The Department should also consider options that may not be reflected in Washington's law for improving outcomes for overburdened communities. For example, California's Independent Emissions Market Advisory Committee notes in its 2022 Report that California could help curb criteria pollution by implementing geographic trading limitations wherein facilities would essentially be limited to "source-specific" greenhouse gas emissions reductions.[13] Assessing these potential changes may be useful for designing a linkage agreement that ensures protections for overburdened communities in all jurisdictions.

***Assess and compare provisions throughout California, Québec, and Washington's cap-and-invest laws that ensure equity is centered in program implementation*.**

Washington's law includes numerous provisions to enable equitable program implementation including minimum investment commitments for overburdened communities and Tribes, requiring the Environmental Justice Council to provide recommendations and general oversight,

[12] CARB, "Community Air Protection Program." 2023. https://ww2.arb.ca.gov/capp

[13] IEMAC, "2022 Annual Report of the Independent Emissions Market Advisory Committee." February 3, 2023. https://calepa.ca.gov/wp-content/uploads/sites/6/2023/02/2022-ANNUAL-REPORT-OF-THE-INDEPENDENT-EMISSIONS-MARKET-ADVISORY-COMMITTEE-2.pdf?emrc=6afe11.

and Tribal consultation. If present, the Department should identify any similar or additional environmental justice safeguards written into California and Québec's laws and regulations as these are critical for ensuring benefits reach communities and harms. The Department should also consider ways to integrate a requirement for certain equity provisions into a future linkage agreement.

3. Joining markets would not negatively impact Washington's ability to meet the emissions-reduction commitments set in state law.

Key Recommendation: Consider partial or restricted linkage as means for reducing the cost of allowances without harming Washington's ability to meet its own GHG reductions.

Restricted linkage is a potential option the Department could pursue to help limit rising costs in Washington while mitigating concerns that California's large supply of unbanked allowances would harm Washington's ability to meet its greenhouse gas reduction requirements. This restriction could be implemented in various ways, but is generally accomplished by limiting, or restricting, the use of allowances from another jurisdiction.[14] For example, a restricted linkage agreement could allow Washington businesses to have access to a limited number of out-of-state allowances to increase the supply of allowances and drive down costs without flooding the market.

Another option that may be more administratively burdensome but would ultimately have the same effect would be to establish a certain percent of out-of-state allowances that could be used to meet an entity's compliance obligation, similar to the design of the offset program. There are some tradeoffs to this approach, given it may lead to lower administrative and market efficiencies, but it "may be useful if there is a need to trade off some advantages against some of the risks."[15] The Department could also consider pursuing restricted linkage for a set number of years before deciding to pursue full linkage as a way to give other jurisdictions additional time to implement major programmatic changes (e.g., addressing the allowance bank or extending the program to 2050).

Key Recommendation: Washington's linkage with California and Québec should be contingent on California's program reauthorization.

Currently, California's program is only extended through 2030 and requires reauthorization to

[14] ICAP & PMR, "Emissions Trading in Practice: A Handbook on Design and Implementation (2nd Edition)." April 2021. https://icapcarbonaction.com/system/files/document/ets-handbook-2020_finalweb.pdf.
[15] ICAP & PMR, April 2021.

extend to 2050, when California must reduce its emissions by 80% by 2045.[16] While the California Air Resources Board may have implicit authority to enable this extension, it is likely that legislation and approval by the Legislature will be required to reauthorize the program. Given these uncertainties, the Department should consider the risks associated with linking with a program that may end in 2030. For example, California would no longer be incentivized to address its large bank of unused allowances to meet its 2050 goals in a scenario where the program does not reauthorize. Administrative burden and costs associated with linking with a program for a brief 5-year period may also pose risks, particularly given the staff capacity needed to execute the linkage process, including public comment periods, rulemaking, designing of a linkage agreement, and subsequent de-linking. Thus, *without* assurance that California's program will extend to 2050, linkage may harm Washington's – and California's – ability to reach its greenhouse gas emissions reduction goals.

The Department should work closely with California's program administrators and advocates to understand the likelihood of program extension and ultimately, should wait to link until the program has been reauthorized to avoid these concerns.

Closely follow potential opportunities for California to address its large bank of unused allowances.

As of 2022, California banked 321 million allowances, which is equivalent to the carbon reductions needed to meet California's 2030 reduction goals.[17] As noted in part one of our analysis, linkage should be contingent on California addressing its large bank of unused allowances. This overallocation poses one of the greatest barriers to linkage given its potential to hinder Washington's (and California's) ability to meet its emissions-reduction requirements set in law through enabling Washington to exceed its statewide cap with the availability of cheap, overabundant allowances, and reducing revenue streams that could be invested in decarbonization projects.

The Independent Emissions Market Advisory Committee 2022 Annual Report notes a few options that California administrators have to address the allowance supply, including implementing an emissions containment reserve, as well as an administrative change to reduce annual emissions budgets to decrease allowances proportionally across allowance supplies (e.g., secondary market, free allowance allocation) – not just through auction.[18] Whichever

[16] Office of Governor Newsom, "California Releases World's First Plan to Achieve Net Zero Carbon Pollution." November, 2022. https://www.gov.ca.gov/2022/11/16/california-releases-worlds-first-plan-to-achieve-net-zero-carbon-pollution/.
[17] Berkeley Law, "California Climate Policy Fact Sheet: Cap-and-Trade." https://www.law.berkeley.edu/wp-content/uploads/2019/12/Fact-Sheet-Cap-and-Trade.pdf
[18] IEMAC, February 3, 2023.

approach California takes, it is important that they address this supply to meet all three programs' reduction targets and the Department should work closely with the Advisory Committee to understand these potential shifts and to track any rulemakings or legislative changes.

Consider the complex role of each jurisdiction's offset program and their impact on program effectiveness and greenhouse gas emissions reductions.

In California and Québec, offsets are outside of their respective emissions caps, where the purchase of an offset does not impact the number of allowances available for purchase. This means that covered entities can fully "offset" their emissions with the purchase of an offset, which slows California and Québec's ability to meet their greenhouse gas reductions and enables businesses to continue to pollute in communities at higher levels for longer. In response to these concerns, offsets in Washington's program are *within the state's emissions cap*, such that purchasing an offset removes the equivalent number of allowances from the market. This means that Washington's offset program still encourages emissions reductions while providing an *additional* benefit for investments in conservation. Washington's program also provides support and incentives for offsets on Tribal land to drive these dollars to Tribes. As the Department considers whether to link, it should carefully consider the implications of this separate treatment of offsets under each program's law and how that might impact Washington's ability to meet its greenhouse gas emissions. It is also worth considering whether California and Québec have a similar program designed to support Tribes in developing offset programs.

It is worth noting that California is considering implementing a true-up mechanism to account for invalid offsets that would remove the equivalent amount of emissions from the allowance pool. The Department should consider the impact of such a change on emissions reductions.[19]

Assess the impact that California's banked allowances has had on Québec.

As is required by statute, the Department must consider the implications of California's banked allowances issue on Washington's ability to meet its own GHG reduction targets set in law. In order to assess the impact of linkage on Washington's ability to meet its emissions targets, the Department should utilize Québec as a case study and analyze the impact of linkage on Québec, which is comparable in both size and emissions output. The Department should consider any existing literature on these impacts and should meet directly with Québec's program

[19]IEMAC, February 3, 2023.

administrators to learn more.[20] However, it is worth highlighting that a 2020 study found that prior to linkage, Québec had a lower settlement price than that of California, and the price of an allowance increased relative to Québec's original prices.[21] Thus, although Québec may offer useful insight into the scale of impact, it may not offer a direct comparison of price impacts.

Consider the implications of electricity markets and imports on linkage.

The Department should consider the implications of electricity markets and recent engagement on electricity imports under the CCA in its decision-making on linkage. Many conversations around electricity markets have centered around the need for a fully integrated wholesale electricity market in the West. It will be important for the Department to closely track the development of an integrated market over the coming years to ensure that electricity markets can efficiently operate in a linked system, while strengthening practices for electric greenhouse gas emissions accounting. The Department must ensure enforcement and close tracking of imported and exported electricity to maintain the stringency of both laws.

4. Linking would reduce the cost of compliance for covered businesses.

Re-frame criterion #4 to more closely align with the intent of the statute to achieve the most cost-effective greenhouse gas emissions reductions.

As written, this criterion does not fully capture the intent of the statute and may run counter to the goal of criterion #3 to avoid negatively impacting Washington's ability to meet its greenhouse gas emissions reductions. The statute states that a goal of linkage is to "broaden the greenhouse gas emission reduction opportunities to reduce the costs of compliance on covered entities and consumers."[22] Rather than solely focusing on reducing costs for Washington entities, the intent of this criterion is to ensure that linkage facilitates the lowest-cost greenhouse gas emissions reductions between all three programs. At some point during the lifetime of the program, Washington will likely have more cost-effective greenhouse gas emission reduction projects, and at other points in the program, California or Quebec may. This criterion should better reflect the goal of ensuring linkage provides an opportunity for seeking the most cost-effective greenhouse gas reduction opportunities at a regional level between the

[20] E.g., Vivid Economics, "Market Stability Measures." 2020. https://climate.ec.europa.eu/system/files/2020-06/study_market_stability_measures_en.pdf;
Purdon, M., Houle, D., Lachappelle., E., "The Political Economy of California and Québec's Cap-and-Trade." 2014. https://www.researchgate.net/publication/276289377_The_Political_Economy_of_California_and_Québec%27s_Cap-and-Trade#pf27.
[21] Purdon, M., et al., 2014.
[22] RCW 70a.65.210

linked programs.

Use Québec as a case study to understand the cost impacts of linkage on a smaller market. Given that Québec and Washington are comparable in size and emissions output, the impact of linkage on the cost of compliance and emissions reductions will be useful. As highlighted under criterion #3, the Department should connect with Québec's cap-and-invest administrators to understand the impact of linking on: their ability to meet their GHG reductions, its ability (or lack thereof) to reduce the cost of compliance for covered businesses, and more. It will also be useful to understand any administrative benefits that come with linkage beyond sharing an auction system and platform, and identify other areas Québec may have seen efficiencies or challenges as they worked to integrate their system with California's. In general, understanding how linkage may have contributed to the sustainability of Québec's smaller program will be useful.

Conclusion

Linkage has the potential to increase the durability of Washington's program, reduce costs for consumers, and improve the environmental integrity and equity provisions of California's and Québec's programs. However, linkage may also pose risks and could undermine the impact of provisions to protect overburdened communities and meet greenhouse gas limits in Washington's law. Thus, our support for linkage hinges on: (1) the benefits and protections for overburdened communities and the degree to which these programs mirror some of Washington's critical provisions for environmental justice and overburdened communities, especially for air quality; (2) efforts to address California's large supply of banked allowances to ensure all three jurisdictions collectively meet their emissions reduction goals; and (3) California's extension of its program beyond 2030 to help ensure linkage bears benefits and efficiencies in the long term. Ultimately, Washington, California, and Québec have an opportunity to set a national standard for a carbon market. If Washington pursues linkage and is able to help influence California and Quebec strengthen their programs, we could see our region as a whole more effectively and equitably meet our greenhouse gas reduction goals.

We look forward to continuing to work with the Department as it considers linkage.
Sincerely,

Altinay Karasapan
Washington Regulatory Policy Manager
Climate Solutions

Kelly Hall
Washington Director
Climate Solutions

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growth energy™
America's Ethanol Supporters

701 8th Street, NW, Suite 450, Washington, D.C. 20001
PHONE 202.545.4000 FAX 202.545.4001 GrowthEnergy.org

May 15, 2023

Stephanie Potts
Washington Department of Ecology
P. O. Box 47600
Olympia, WA 98504
Via online submission

RE: Comments on Proposed Cap and Invest Linkage and Biofuels

Dear Ms. Potts:

Thank you for the opportunity to comment on the Department's discussions to link the state's "cap and invest" program with those programs in existence in California and Quebec. Growth Energy is the world's largest association of biofuel producers, representing 92 U.S. plants that each year produce 9 billion gallons of renewable fuel; 115 businesses associated with the production process; and tens of thousands of biofuel supporters around the country. Together, we are working to bring better and more affordable choices at the fuel pump to consumers, improve air quality, and protect the environment for future generations. We remain committed to helping our country diversify our energy portfolio in order to grow more green energy jobs, decarbonize our nation's energy mix, sustain family farms, and drive down the costs of transportation fuels for consumers.

We appreciate the Department's effort to reduce Washington's greenhouse gas emissions. Our industry represents the largest volume of accessible, low-carbon biofuels meant to achieve the objectives of the Department and the State of Washington.

As we outlined in our comment directly on the Cap and Invest program, we continue to be concerned about the restrictive definition of the exemption for biofuels and its impact on bioethanol. Specifically, while the program does contain an exemption for biofuels, it is limited to only those "fuels derived from biomass that have at least 40 percent lower GHG emissions based on a full life-cycle analysis when compared to petroleum fuels for which biofuels are capable as serving as a substitute." While we appreciate the Department's discussion in the final rulemaking that "Ecology's working assumption is that all biofuels meet the 40 percent standard for past and near future years unless that verification process clearly indicates otherwise", we continue to believe that this definition does not provide enough clarity and may be too restrictive, and ultimately could prohibit the use of sizeable volumes of lower-carbon bioethanol that could generate substantial GHG emission reductions for Washington and lower the state's dependence on fossil fuels.

This issue is particularly important as the Department seeks to link the program with those in Quebec and California where biofuels are already clearly exempt.

We strongly urge the Department to clarify its definition for its biofuel exemption to maximize the use of bioethanol to reduce greenhouse gas emissions.

We would be happy to further discuss the role of higher bioethanol blends in further GHG reductions.

Thank you for the opportunity to comment and in advance for your consideration.

Sincerely,

Chris Bliley
Senior Vice President of Regulatory Affairs
Growth Energy

701 8th Street, NW, Suite 450, Washington, D.C. 20001
PHONE 202.545.4000 FAX 202.545.4001

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Sent via email to: CCALinkage@ecy.wa.gov

May 12, 2023

Ms. Stephanie Potts
Air Quality Program
Washington State Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600

RE: Comments Regarding Potential Linkage of the Washington Cap-and-Invest Program

Dear Ms. Potts,

HF Sinclair is a diversified, innovative energy company that manufactures and sells products such as gasoline, diesel fuel, jet fuel, renewable diesel, specialty lubricant products, specialty chemicals, and specialty and modified asphalt, among others. We are proud to be part of Washington's economy following our acquisition of the Puget Sound Refinery in November 2021. In addition to our capability to process nearly 700,000 barrels/day in our refineries located in Kansas, Oklahoma, New Mexico, Utah, Wyoming and here in Washington, HF Sinclair's growing renewables business operates three production facilities that can produce approximately 380 million gallons of renewable diesel annually making HF Sinclair the second largest producer of renewable fuels in the United States.

HF Sinclair appreciates the opportunity to comment in the exploration phase that Washington Department of Ecology (DOE) is undertaking to consider linking its Cap-and-Invest (C&I) Program with similar California and Quebec market programs that are already linked through the Western Climate Initiative (WCI).

In our comments regarding rulemaking for Chapter 173-446 WAC, HF Sinclair expressed its support for linkage of the C&I Program, as intended by its enabling legislation (RCW 70A.65.210). We remain convinced that this legislative direction was astute. Market-based programs foremost require the confidence of those who must or otherwise wish to participate in them; linkage with much larger programs through the WCI would provide greater confidence for the C&I Program by allowing it to leverage the credibility of over 10 years of successful market experience in California with its Cap-and-Trade Program, with over nine years of it functioning as a joint program linked with Quebec's Cap-and-Trade System.

HF Sinclair Refining & Marketing LLC
2828 N Harwood, Suite 1300, Dallas, TX 75201
214-871-3555 | HFSinclair.com

The scale of the linked programs under the WCI also provides key stability that markets need; the quantity of allowances available in the California-Quebec Joint Auction #34 held in February 2023 was nearly an order-of-magnitude greater than the quantity provided by the C&I Program. The greater scale of this joint market fosters further confidence in it and provides more liquidity for the collective markets that becomes more important as climate targets tighten. Given the very aggressive 7% reduction in the annual budget required by WAC 173-446-210 during the early years of the program, having access to an established market with liquidity is all the more compelling.

Access to such a larger market of allowances would also help ameliorate price volatility for the program. Upon linkage, allowance prices between the markets would be harmonized. But – as noted in the Final Regulatory Analysis prepared by DOE – simply strong direction from DOE that linkage will be pursued would provide price stability for the C&I Program even prior to its actual linkage being in place. It would be particularly stabilizing if the C&I Program market participants had a high degree of certainty that this linkage would occur well before conclusion of the first compliance period at the end of 2026.

Linkage also provides for harmonization of the cost of carbon mitigation with that of the large California economy with which Washington must remain competitive. Furthermore, as other jurisdictions contemplate similar such programs, having a head start in management of the C&I Program as a component of a potentially much larger market in the future could give Washington an early-entrant advantage. Bottom line, the earlier that linkage can be established, the greater likelihood the C&I Program will be successful for Washington.

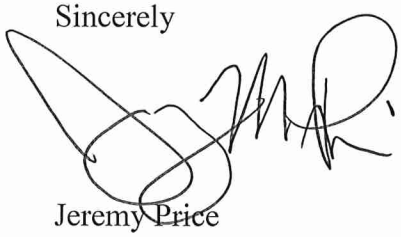
Alongside the topic of linkage, there have been important concerns raised by ourselves and others regarding problems with the C&I Program that need to be remedied. The list of concerns prior to the program's start has been added to by new issues that have surfaced since inception of the C&I Program on January 1. Most notable of the new issues are the ongoing challenges with implementation of the exemptions provided by the legislature for certain classes of fuels, for which action still needs to continue at pace and an effective solution developed to allow covered entities a path to compliance and ensure that fuel consumers enjoy the exemptions the legislature intended.

We equally remain concerned about the problematic constraints created by holding and auction purchase limits, overall program aggressiveness and the implementation of the biofuels definition that could become problematic for both DOE and covered fuel suppliers in the future. Again, we spoke to these issues in our July 15, 2022 comment letter and these issues still need to be addressed. Having said this, we strongly believe the optimal approach for DOE will be to progress linkage with California and Quebec through the WCI, while simultaneously working with stakeholders to address existing concerns with the C&I Program. Indeed, discussions with

California and Quebec to progress linkage with them through the WCI offer the probability that useful feedback can be obtained from them to improve the C&I Program, which can then be acted upon via regulation and/or legislation. This creates the opportunity for Washington to have the best possible program entering into linkage, along with the benefits that linkage itself will provide to the C&I Program.

HF Sinclair remains enthusiastic as a newer member of the Washington business community and as a reliable supplier of transportation fuels to the state. We look forward to seeing resolute steps taken to initiate linkage as soon as feasible, and are ready to assist DOE with this endeavor while simultaneously continuing to work in parallel on existing challenges with the C&I Program that have already been identified. Please reach out to me via email at Jeremy.Price@hfsinclair.com or by phone at (360) 298-4740 to help with these aims.

Sincerely



Jeremy Price
Manager, West Coast Government Affairs

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Ref: KLLC-07-23

02/06/23

ECOLOGY

Washington Cap & Invest Program

WA Dept. of Ecology - Air Quality Program

Olympia, WA 98504-7600

Email: CCALinkage@ecy.wa.gov

Subject: Comments on Cap & Invest Linkage

Dear Madam & Sir

KOYTO LLC is an advisory firm founded by an ICAP Alumni and aims to participate in the space of ETS, de-carbonization, and GHG accounting as well as value chains of the carbon markets. It intends to involve as a general market participant at some point in time.

KOYTO LLC expresses its gratitude for the opportunity to comment on linkage. We believe linkages between ETS schemes can help to enhance cost efficiency & scale up mitigation, if routinely calibrated.

1. We understand that the primary aim of the linkage, as described in the relevant section under RCW 70A.65.210, among other things is to protect covered entities from price volatility arising from various causes of supply shortfall.
   We can also observe that California & Quebec are several compliance periods ahead of Washington, and that entities in Washington are at the moment enjoy relatively smaller cap level than what the future holds. We therefore assume there may be more outbound allowance than inbound. This will certainly benefit Washington based participants in terms of demand/price.

   However if the facilities in Washington underperform, there would likely be flow of inbound allowances. Moreover since there may be no offset projects in Washington at the moment, there will likely be more inbound offset credits as well.

Given the fact that frontline and overburdened communities are part of the main aim of the Climate Commitment Act, while both California & Quebec are linked for exchange of allowances and offsets from those jurisdictions, how will import of allowances and credits to Washington due to linkages from other programs, especially in case of underperformance of in-house facilities, give incentives to mitigation at home especially in sources not covered by the scheme? Does it intend to expand coverage of eligible offset project activities at home? Will there be a threshold for import of allowances and offsets from other schemes (Ex: 30%. 50% etc.) to in parallel stimulate & nurture nascent offset project activities at home (Washington)?

2. While in case of the California & Washington, coverage of emissions is to any entity with emission source above a threshold of 25,000tCO2e/year, the coverage of Quebec is specific to entities in few sectors (i.e. Transport, Buildings, Industry & Power) above a threshold of 25,000tCO2e/year plus importers of fuel and building materials above 200L. In such situation where sectors covered vary among schemes, will there be remaining harmonization work or will allowances transfer be limited to and between "like to like" participants in the same sector, from linked constituencies?

3. Given that the eligible activities covered in offset protocol in Quebec is more extended than that in California & that Washington is aligned with California, are all the schemes aiming to harmonize coverage of project eligibility & offset protocols to be similar everywhere?

4. We observed t that Quebec covers "import of building materials" which most likely targets Scope 3 emissions (Ex: Product use & end of life). Hence regarding inventory of emission from covered entities, which scopes are consistently covered in each scheme? Does each scheme set its own level? Do they all harmonize to account Scope 1, Scope 2 & Scope 3 emissions in establishing their comparison to the 25,000tCO2e/year threshold?

5. Are the three schemes in any likelihood and timeline of extending the coverage to economy wide level so that it aligns with the national NDC as well as open further linkage opportunities with other schemes such as the New York Cap & Invest scheme?

6. Our final comment is regarding compliance with rules under the Enhanced Transparency Framework and the Cooperative Mechanism of the Paris Agreement. While transfer of Allowances & offsets between California & Washington is within a Party to the Paris Agreement, any transfer, to and from, Quebec of allowances or offsets is subject to rules under Article 6.2 of the Paris Agreement. This will entail observing additional rules related to Internationally Transferred Mitigation Outcomes (ITMOs).

https://unfccc.int/process/the-paris-agreement/cooperative-implementation

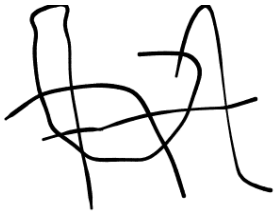
There are also other works of researches and stakeholder initiatives involved in keeping environmental integrity of programs, activities & offset credits.

https://icvcm.org/

https://carboncreditquality.org/scores.html

How is the process of linkage aiming to address issues of Quality of units regarding the Standards (Methodologies & Program rules) used to create them, Environmental Integrity with respect to Double Counting and process of Host Country Authorization related to units transferred, implementation of Corresponding Adjustment of respective national inventories regarding the units transferred when units are in the end intended to be part of NDC compliance?

Kind regards



Ambachew Admassie

CEO, KOYTO LLC

ambachew.admassie@koytollc.com

+1-571-251-6256

+1-571-587-8192

www.koytollc.com

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The Nature Conservancy
Washington

May 15, 2023

Stephanie Potts
WA Dept. of Ecology – Air Quality Program
P.O. Box 47600
Olympia, WA 98504-7600

Re: Comments on Cap & Invest Linkage Exploratory Process

Dear Ms. Potts,

On behalf of The Nature Conservancy and our 310,000 supporters across the state, thank you for this opportunity to provide comments on the critical decision on whether Washington state should link our Cap & Invest system to California and Quebec. The Nature Conservancy helped shape and strongly supported the Climate Commitment Act as landmark climate legislation for Washington state. Washington learned from the shortcomings of previous Cap & Invest programs to create a policy that will dramatically reduce greenhouse gas emissions, ensure that overburdened communities realize health benefits from reduced emissions and associated toxic pollution, and invests in transitioning our state to a clean economy with climate resilient communities. Whatever decision the Department of Ecology ultimately makes, we encourage one that it is made with the intent to strengthen these goals.

In short, we urge caution and careful consideration and analysis as the Department of Ecology makes this decision. Washington's system was developed with the benefit of seeing the successes and shortfalls of the similar systems in California and Quebec, ours is a permanent program with more ambitious greenhouse gas targets, limited offsets within the greenhouse gas cap and an embedded air quality program; each of these components can all be negatively impacted if linkage is implemented without protections for Washington's unique system. As such, we offer the following comments as broad areas of consideration and further research as Ecology makes this determination.

Conduct an Environmental Justice Assessment prior to deciding whether or not to pursue linkage

The informal public process provided does not allow for knowledgeable public input for Ecology to in turn inform their decision on linkage; due to the fact that there is little generally accessible information that analyzes the impact of linking carbon markets. Furthermore, one of the only available analyses focuses exclusively on the impacts of linkage on the allowance price. This leaves out the crucial impacts that linkage may have on overburdened communities and greenhouse gas and criteria air pollutants. Given that this is a significant agency decision with

74 Wall Street
Seattle, WA 98121
Tel: (206) 343-4344
www.WashingtonNature.org

large implications for Washingtonians health and our ability to reduce emissions of all types; an environmental justice assessment. While the conducting of an environmental justice assessment is required by the Climate Commitment Act, the timing of when in the process it should be done is not. It is the Nature Conservancy's recommendation that it should be undertaken prior to making the decision to link. Once completed that assessment should be shared broadly with Ecology and another round of public comments should be conducted before a decision on linkage is made. Such a process would allow for a more informed public to submit comments targeted towards better known impacts and outcomes.

A critical analysis of an Environmental Justice assessment of linkage should be focused on the pollution burden and health disparities of communities in Washington, California and Quebec – not just the potential economic burden of high fuel and transportation costs. While economic burden, especially for low-income communities is a key consideration, it should not be an exclusive one. The air quality program and other environmental health benefits of Washington's Cap and Invest program are a critical piece of the program and designed purposefully to address perceived shortcomings in California's system. As such, Ecology should conduct the needed analysis of any negative impacts on reaching our GHG reduction targets, improving air quality in overburdened communities and other potential impacts to overburdened communities. With this analysis in hand, Ecology should then re-open opportunities for input on whether or not to link from a public informed about the impacts of linkage to pollution burden and health disparities in all linking jurisdictions.

Prohibit unlimited use of unused California allowances in Washington

With hundreds of millions of unused allowances built up by entities in California, unlimited linkage between California and Washington could very likely lead to a complete diminishment of needed revenue to invest for our transition to a clean economy – while also limiting actual greenhouse gas reductions by Washington state entities. A linkage agreement that weakens the greenhouse gas impacts and the investment potential of the Cap & Invest system would be unacceptable. Ecology must be certain that any approach to linkage under consideration will maintain needed revenue for the clean economy transition and maintain incentives for Washington's covered entities to reduce their emissions and not simply allow unfettered access of California's unused allowances to flood our tightly regulated market.

In addition, California's system does not extend beyond 2030 and that impermanence could lead to further "dumping" of allowances, as unused allowance become worthless in California with that program's potential expiration. To address the threats of California's allowance glut and program expiration date, Ecology should consider very limited linking by significantly restricting the number of allowances from California and Quebec that could be allowed in Washington. This would allow for some cost containment without harming the goals of Washington's program. We support Stockholm Environment Institute's robust analysis on this issue and encourage Ecology's deep consideration of their comments on this and other matters.

All offsets in a linked market must be under the cap

Ecology must protect the integrity of Climate Commitment Act's impacts on greenhouse gas reduction. Unlike in Washington, California's offsets are able to exceed their cap on Greenhouse

Gas emissions – allowing California entities to purchase offsets in Washington would limit, if not eliminate, an overall reduction in greenhouse gases. Offsets that do not contribute to lowering emissions under the cap do not meet the program's core objective and should not be allowed in a linkage agreement. Ecology should make linkage of Washington's system contingent on California adapting their program to include offsets under their cap so that the offsets contribute to greenhouse gas reduction targets.

The Nature Conservancy appreciates this chance to provide input on Ecology's linkage decision process. We hope to provide input on this decision again should Ecology conduct an Environmental Justice Assessment and shares how linkage would impact overburdened communities in all linked jurisdictions, as well as how Ecology would protect the goals of Washington's program with other less rigorous programs.

Sincerely,

David B. Mendoza
Director of Advocacy & Engagement

Joshua Rubinstein
Conservation Policy Associate

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NWGA
Northwest Gas Association

1914 Willamette Falls Drive, Suite 260
West Linn, Oregon 97068
t:503.344.6637 • www.nwga.org

May 15, 2023

ATTN: Luke Martland
Washington State Department of Ecology
Air Quality Program
P.O. Box 47600
Olympia, WA 98504-7600

RE: Comments concerning linkage to other carbon markets

To Whom It May Concern:

The Northwest Gas Association (NWGA) is providing comments to the Washington State Department of Ecology (ECY) on *Connecting Washington's Carbon Market with other markets.*

NWGA member companies serve warmth and comfort to 3.3 millions people in their Washington homes, and productive energy to more than 110,000 businesses, institutions and industries across the state. Collectively, they own and operate 45,000 miles of safe, dependable energy delivery infrastructure. NWGA members are committed to Washington State's clean energy future. We know that effective implementation of climate policies like the Climate Commitment Act requires a collective effort from industry, governments, communities, and consumers to achieve meaningful emissions reductions. look forward to being a partner in supporting this goal.

A well-designed market linkage presents several advantages by minimizing the risk of carbon leakage, equalizing the marginal cost of emissions across different sectors and jurisdictions, and increasing liquidity to allow for efficient price discovery. Linkage would improve the ability of Washington's program to achieve its greenhouse gas reduction goals. It would create greater market efficiencies and would likely benefit Washington families and businesses by moderating program costs. Finally, Washington's program is already well-positioned for linkage with the California-Quebec market.

As the International Emissions Trading Association (IETA): "*aside from environmental benefits, formal linkage offers greater certainty through two pathways. First, the larger number and broader type of entities that can trade with one another leads to improved liquidity and economic efficiency. This contributes to program performance by ensuring that the carbon price accurately reflects underlying abatement costs. Second, formal linkage can*

dampen carbon price volatility caused by regional variations, especially if critical factors such as seasonal weather or economic activity are imperfectly correlated across jurisdictions."

The NWGA appreciates the opportunity to provide comments on this matter. Our members and their customers have a vested interest in connecting Washington's carbon market with other carbon markets. We look forward to working with ECY and other stakeholders in the best interest of energy consumers in Washington State.

Sincerely,

Dan S. Kirschner
EXECUTIVE DIRECTOR
Northwest Gas Association

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From: Sienna Taylor
To: ECY RE CCA Linkage
Cc: Sarah Miller; Mallory Ekman
Subject: Public Statement on Linkage
Date: Monday, May 15, 2023 9:28:33 AM

Dear Department of Ecology,

As students at Western Washington University, we believe that Washington should link with California's and Quebec's carbon markets. However, we anchorage an extremely thorough and transparent environmental justice assessment that addresses the equity of the jurisdictions in consideration, but also reports exactly how linking might impact local pollution in WA state.

Cap-and-Invest inherently aims to decrease global emissions but makes it difficult to target local pollution. We must link carbon markets because that is what Cap-and-Invest programs are designed to do and will contribute to reduction of global emissions, but we have to put more attention toward environmental justice than both CA and WA already attest to. CA has the same target as WA to allocate 35% of Cap-and-Invest revenue in overburdened communities/priority populations, but CA has been criticized for "overreporting" the investment funds that go toward these communities. From 2017-2019, CA estimated that 60% of projects funded by Cap-and-Invest were in overburdened communities or benefited priority populations, however, their credentials for this investment were loose. For instance, if a public transit project spans multiple census tracts and runs through at least one priority census tract, then the whole project can be classified as "benefiting priority populations"

WA must maintain stricter credentials and explicitly define what projects benefit overburdened communities, as well as how the funding will be allocated and to whom it will go. The environmental justice assessment should address this when assessing the provisions for vulnerable populations in the linking jurisdictions.

We look forward to reading this assessment and hearing about a decision soon.

Sincerely,

Sienna Taylor, Mallory Ekman, Sarah Miller

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PACIFIC POWER
A DIVISION OF PACIFICORP

825 NE Multnomah Street, Suite 2000
Portland, Oregon 97232

May 15, 2023

VIA ELECTRONIC FILING

Washington Department of Ecology
Attn: Stephanie Potts
300 Desmond Drive SE
Lacey, WA 98503

Re: PacifiCorp's Public Comments on Linkage of the Climate Commitment Act Program

PacifiCorp d/b/a Pacific Power (PacifiCorp) respectfully submits these comments to inform the Washington Department of Ecology's (Ecology) decision to pursue linkage of Washington's Cap-and-Invest Program with other jurisdictions.

Ecology has made great strides in the past two years to implement Washington's Climate Commitment Act (CCA). While there are still substantial issues specific to the electric sector where stakeholders request Ecology guidance,[1] and where a third-party expert should be engaged to address wholesale energy markets and greenhouse gas pricing policies,[2] the Department's efforts have ensured that Washington has a reliable foundation to begin progressing towards the CCA's ambitious emissions reduction requirements.

The next step is to determine whether Washington will pursue linkage of its program with California's and Quebec's programs, and if so, under what conditions. PacifiCorp supports pursuing linkage of Washington's carbon market, which will allow the state to realize the additive benefits that result from a more regionalized carbon emissions market, while avoiding the harms from a balkanized Washington-only market.

Linkage would avoid double obligation for certain PacifiCorp generation

The CCA allows Ecology, after considering various factors and considerations, to link its greenhouse gas emissions trading program with other jurisdictions.[3] These include affirmative findings that linkage would reduce compliance costs for impacted businesses and consumers, and provide consistent treatment for multi-jurisdictional entities.[4] PacifiCorp operates the Chehalis Generating Facility, a 698-megawatt facility that serves customers in both Washington and California. Because the facility is located in Washington, all of the emissions generated from the facility are subject to the CCA's emissions requirements. The Company is allocated no-cost allowances for the portion of Chehalis generation that serves Washington retail customers.

[1] Consideration of Electricity Imports and Determination of the Electricity Importer Under the CCA White Paper (Mar. 1, 2023).
[2] Joint Coalition's Request for Stakeholder Workshops (Mar. 17, 2023).
[3] RCW 70A.65.210
[4] RCW 70A.65.210(1)(b), (f).

However, a portion of energy that does not serve Washington goes to serve California retail customers according to their cost share of this resource. This portion of energy is also subject to California's Cap-and-Trade program and therefore subject to a double obligation under both state regimes. In addition, Chehalis is a participating resource in the California Independent System Operator's Energy Imbalance Market (EIM) and gets dispatched into California as part of EIM wholesale sales, which also carry a GHG obligation in California program. Recognizing these facts, Ecology has deferred the CCA compliance obligation for Washington-generated electricity serving California until after the first compliance period[5]. However, linkage of California and Washington's carbon markets would avoid this duplicative carbon obligation.

Linkage is also important in the context of the expansion of organized electricity markets within the West. Linkage of programs would provide a single GHG price signal under the current proposal for the Extended Day-Ahead Market (EDAM). Otherwise, having two GHG prices could influence transactions in favor of one GHG zone over another based on the price difference between the two.

Linkage is expected to lower the cost of compliance for customers

The CCA also requires Ecology to consider whether linkage would reduce compliance costs.[6] The first CCA auction has wrapped up, and 6,185,222 allowances were sold at $48.50 per allowance.[7] This is compared to California and Quebec's thirty-fourth auction that concluded in February 2023, where 56,395,720 allowances were sold for $27.85 per allowance.[8] While there are many facts and circumstances to consider when determining forecasted allowances prices that could result from linked programs, linkage should exert significant downward pressure on the prices experienced in a Washington-only carbon market: the California-Quebec market sold approximately tenfold the number of allowances, at almost half the price. This expected decrease in allowance prices if jurisdictions become linked is also reflected in Ecology's third-party economic analysis.[9]

Not only would these direct reductions in allowance costs support requirements to pursue linkage under RCW 70A.65.210(1)(b), but the resulting price uniformity and certainty from consistent compliance obligations would reduce administrative costs and burden. When PacifiCorp determines how to allocate or procure resources in California and Washington, emissions obligations are factored into the business decision process. Two distinct emissions markets duplicates the due diligence that is required to inform these decisions: both markets and the current and forecasted compliance obligations need to be analyzed over time. Linkage will remove this need to analyze and forecast two separate carbon adders.

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[5] Cap-and-Invest Guidance on Electricity Exports from Washington to California, Pub. No. 23-02-004 (Jan. 2023)
[6] RCW 70A.65.210(1)(b).
[7] Auction #1 February 2023 Summary Report, Pub. No. 23-02-022 (Mar. 7, 2023).
[8] Summary of California-Quebec Joint Auction Settlement Prices and Results (Cal. Air Res. Board; Feb. 2023) (available here).
[9] Washington CCA Summary of Market Modeling and Analysis, Pub. No. 23-02-010 (Sept. 2022).

PacifiCorp thanks Ecology for its efforts with the CCA to-date, and requests the agency consider the Company's comments above.

Sincerely,

/s/ Michael Wilding
Vice President, Energy Supply Management
PacifiCorp

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PACIFIC PROPANE GAS ASSOCIATION

May 15, 2023

Stephanie Potts
WA Dept. of Ecology
Air Quality Program
P.O. Box 47600 Olympia, WA 98504-7600

RE: Comments on Cap-and-Invest Program Linkage

Dear Ms. Potts,

We thank the Department of Ecology (DOE) for the opportunity to comment on the potential linkage of Washington's Cap-and-Invest program (WA C&I). The Pacific Propane Gas Association (PPGA) is the state trade association representing Washington's propane industry. Our membership includes small multi-generational family businesses and large businesses engaged in the retail marketing of propane gas to Washingtonians. Our members provide clean-burning and critical energy to residential, commercial and agricultural customers in the state. Washington's propane industry generates more than $658 million in economic activity annually.[1] The PPGA has approximately 30 member businesses based in Washington State.

Our members and customers are currently bearing the brunt of the relatively high allowance prices in WA C&I program. In our line of business, these allowance prices are completely passed through to our customers. This leaves us particularly exposed to adverse impacts from Washington's cap-and-invest program.

We support Washington pursuing bilateral linkages with other cap-and-invest or cap-and-trade programs as soon as possible. Given the level of Washington's allowance prices, linkage seems one of the only levers that can meaningfully bring allowance prices down to a more reasonable level. These cost savings would be passed through to our consumers, many of which are from disadvantaged or low-income communities. To that end, we encourage Washington to pursue linkage with California and Québec, the Regional Greenhouse Gas Initiative, and the forthcoming New York cap-and-invest program.

Linkage Criteria
The relative inexperience and durability of the WA C&I should be factored into the evaluation criteria and DOE should consider within the evaluation of potential linkages what recommendations to the legislature on potential changes are necessary to further enable broad-based and bilateral linkage with larger markets.

[1] https://www.npga.org/wp-content/uploads/2020/07/WASHINGTON_Propane-1-Pager_2020-3.pdf

Criteria 1 & 2: A recent study[2] and response to critiques published by Dr. Meng and Dr. Hernandez Cortes present the most robust analysis of facility emission reductions as a result of California's Cap-and-Trade program. We suggest incorporating the methodology used in this study and response into DOE's evaluation.

Criteria 3: Unused or "banked" allowances are a sign of early compliance with the emission reductions of a program. While there is a vocal minority advocating that these present a risk to market performance, this critique is not inherently the case and DOE should evaluate these studies.[3][4] In fact, many programs with large banks and low prices have yielded significant emission reductions.

Criteria 4: We agree that linkage with larger carbon markets will lead to a reduction of costs and support incorporating the DOE's 2022 independent economic analysis of the WA C&I and further suggest that DOE contemplate programmatic changes to provide economic relief. Additionally, the strength of the CA leakage provisions will help assure that Washington businesses are not unduly exposed to these risks.

Relief Beyond Linkage

Establishing linkage takes significant time as all parties must evaluate the costs and benefits of this formal agreement. For that reason, we also urge Washington to make it easier for regulated companies to use offsets under the WA C&I. This can be achieved by ensuring that any carbon offset protocols available to any potential linkage partner are also made available to Washington's regulated entities for compliance use in the cap-and-invest program.

In addition to ensuring a healthy supply of carbon offsets, it would also be helpful to eliminate Washington's approach of eliminating an allowance when a carbon offset is used. This is not the approach taken in any other program run by potential linkage partners. Any discrepancies in such approaches will likely complicate potential linkage and ultimately endanger the achievement of linkage.

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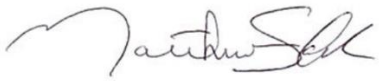
[2] Hernandez-Cortes and Meng (2023) research the causal impact of California's cap-and-trade program on GHG emissions and local air pollutants at a sample of industrial facilities. They find that the program achieved a 9% annual reduction in GHG emissions from these facilities between 2012 and 2017 when there was a significant bank and relatively low prices below 15 dollars per ton. Reference: Hernandez-Cortes, D. and K. C. Meng. 2023. "Do environmental markets cause environmental injustice? Evidence from California's carbon market". *Journal of Public Economics* 217: 104786. Study linked here, response to critiques here.

[3] Bayer and Aklin (2020) research the causal impact of the EU ETS on GHG emissions using a generalized synthetic control approach. The authors find that the EU ETS reduced GHG emissions from covered entities by 1.2 billion tons (amounting to a 11.5% reduction) from 2008 to 2016. During this time period, the allowance bank seemed high (around 2.0 billion allowances) and prices seemed relatively low (decreasing from a high of 35 Euros per ton to a low below 5 Euros per ton). This level of abatement achieved nearly half of the Koto Protocol commitments for participating countries, meaning the program operated as the primary climate policy ("workhorse") for achieving EU climate goals during this period. Reference: Bayer, P. and M. Aklin. 2020. "The European Union Emissions Trading System reduced CO2 emissions despite low prices". *PNAS* 117(16): 8804-8812. Study linked here.

[4] Murray and Maniloff (2015) research the casual impact of RGGI on Northeast US emissions. They find that the program achieved a 24 percent reduction in GHG emissions which accounts for about half of the region's abatement during the study time period. Reference: Murray, B. C. and P. T. Maniloff. 2015. "Why have greenhouse emissions in RGGI states declined? An econometric attribution to economic, energy market, and policy factors". *Energy Policy* 51: 581-519. Study linked here.

Please consider our suggestions carefully as strategies to reduce costs to Washington customers while achieving the same environmental target. Additional compliance flexibilities are needed to ensure the Washington cap-and-invest program runs smoothly. We look forward to future conservations and additional opportunities for input to the DOE.

Sincerely,



Matthew Solak
Executive Director
Pacific Propane Gas Association

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May 15, 2023

Stephanie Potts
Department of Ecology
Air Quality Program
P.O. Box 47600
Olympia, WA 98504-7600
CCALinkage@ecy.wa.gov

RE: Environmental Defense Fund comments relating to linkage between Washington's emissions market and the joint California-Quebec emissions market

Dear Ms. Potts,

Environmental Defense Fund (EDF) appreciates the opportunity to provide input as the Department of Ecology (Ecology) evaluates a potential linkage between Washington's emissions market and the joint California-Quebec emissions market. EDF is a non-profit, non-governmental, and non-partisan organization that links science, economics, and law to create innovative, equitable, and cost-effective solutions to urgent environmental problems. EDF has over three million members and activists across the country, including over 100,000 in Washington state.

EDF brings deep expertise to climate policy design, particularly the design of enforceable, declining, economy-wide limits on climate pollution. EDF has long pursued initiatives at the state, national, and international levels designed to reduce emissions of climate-altering and health-harming air pollutants. EDF has been deeply involved in the design and implementation of California's cap-and-trade program since the program's launch in 2012. We continue to provide technical and policy expertise to make the program as strong as possible going forward and provide analysis of quarterly auction results—as we also now do in Washington.

EDF engages with both the California-Quebec emissions market and the Washington's emissions market to advocate for the deep emissions reductions needed to address the urgent challenge of climate change while creating a more sustainable and equitable future for all. Our goals for these both emissions markets include:

- Promoting ambition in the greenhouse gas emissions limits set by these markets in order to achieve the near- and long-term emissions reductions required to avert the worst impacts of climate change. Cap stringency must deliver cumulative greenhouse gas emissions reductions in alignment with science-based climate targets.
- Ensuring that emissions reductions are accurately quantified and that any offsets used to meet compliance obligations are additional and verifiable, and result in real, quantifiable, and permanent reductions in greenhouse gas emissions.
- Ensuring that the benefits of these emissions markets are shared equitably, particularly among communities that are disproportionately impacted by climate change and pollution. This includes ensuring that revenue from these markets is allocated to support investments in low-income and frontline communities, such as clean energy, energy efficiency, and transportation programs. This also includes securing air quality protections that work alongside and within market-based programs to ensure that air quality improves in communities that face disproportionate air pollution burdens.

Washington's Climate Commitment Act makes the state the country's frontrunner on climate action, with the most ambitious enforceable limits on climate pollution of any state in the nation. By taking bold action to reduce greenhouse gas emissions, Washington is demonstrating that it is possible to address the urgent challenge of climate change while creating a more sustainable and prosperous future. Now, Washington is taking the next step forwards by evaluating whether to link the Climate Commitment Act's cap-and-invest program with the joint California-Quebec emissions market.

Linkage can offer important benefits to the state of Washington, driving climate action at the regional scale and enabling increased cost-effectiveness while maintaining the environmental integrity of the linked jurisdictions' declining caps on emissions. Through linkage, Washington can make its cap-and-invest program as strong and predictable as possible, helping facilitate ambitious climate action for decades to come and creating a foundation for broader climate action in the future.

Benefits of linkage between Washington's market and the joint California-Quebec emissions market

By linking their carbon markets, Washington and California would demonstrate continued leadership on climate action and send a strong signal to other states and countries about the importance of reducing greenhouse gas emissions in an effective, coordinated manner. In evaluating the benefits of linking, we urge Ecology to consider the following:

Linkage will create substantial economic benefits for Washington state, enabling greater levels of cost-effectiveness while maintaining the environmental integrity of the state's declining cap on emissions.

Linkage between emissions markets in Washington, Quebec, and California will create substantial economic benefits for Washington State while preserving the environmental integrity of the cap-and-invest program. A 2022 joint report from EDF and IETA found that **"fundamentally, formal linkage leads to a single allowance price across all linked jurisdictions, thereby reducing total costs to final consumers without sacrificing environmental benefits. In turn, these cost reductions make it easier for regulators to achieve ambitious climate targets and lower overall cap levels."**[1]

Earlier research by the OECD in 2014 similarly found that "linking schemes can improve cost effectiveness by increasing the size and liquidity of carbon markets."[2] A larger, linked market will provide more opportunities for companies to find lower-cost options to reduce their emissions, helping to lower compliance costs for companies in Washington while still maintaining the same level of aggregate, cumulative greenhouse gas emissions reductions across the linked jurisdictions. This will allow Washington to achieve greater levels of cost effectiveness while maintaining the environmental integrity of the state's declining cap on emissions.

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[1] Environmental Defense Fund and International Emissions Trading Association. A Roadmap for Linkage: Aligning California and Washington's Carbon Prices. July 2022. https://ieta.org/resources/Resources/Reports/ARoadmapforLinkageJuly2022.pdf

[2] Dellink, Rob et al. Towards global carbon pricing: Direct and indirect linking of carbon markets. OECD Journal: Economic Studies. 2014. https://www.oecd.org/economy/growth/towards-global-carbon-pricing-direct-and-indirect-linking-of-carbon-markets.pdf

Linkage will reduce the overall cost of compliance for regulated businesses in Washington. The economic analysis[3] published by Washington's Department of Ecology, which examined the potential outcome of linking markets between Washington and California, showed that if market participants had certainty that the program would link with California's program by 2025, the result would be a significant drop in the initial Washington allowance prices. This is compared to a market in which there was no expectation of linkage – with initial allowance prices dropping 30% from $58.31 in a program without an expectation of linkage to $40.74 in a program with an expectation of linkage to California.

Broader economic research also finds that program linkage yields efficiency gains; a recent study from economists at the University of Massachusetts Amherst found that linkage "yields lower total abatement costs and greater economic surplus in each program," compared to independent systems.[4] This study built on earlier research by Resources for the Future, which found in 2013 that "bilateral linking of cap-and-trade programs offers potential efficiency gains through lower-cost emissions reductions."[5]

These cost-effectiveness and efficiency gains can enable greater climate ambition across the two jurisdictions. The price reductions modeled by the Department of Ecology in a scenario with an expectation of linkage suggest that in a linked market, Washington is less likely to trigger an auction of allowances from the Allowance Price Containment Reserve—keeping those allowances out of the market and lowering the overall emissions under the cap.

Linkage between the programs will allow for more streamlined auction administration and program management, while also increasing overall market security.

Linking Washington's market with the joint California-Quebec market will streamline auction administration and program management by utilizing a shared auction that leverages California and Quebec's proven approach. Washington has already taken steps towards this outcome by utilizing the Western Climate Initiative as its auction platform—the same auction platform used by California and Quebec's joint auctions. Linkage also establishes a single allowance price across all linked jurisdictions. Washington's market already includes safeguards against market manipulation, but a single allowance price acts as an additional safeguard while also making it easier for regulated businesses that must comply with programs in multiple jurisdictions.

Linkage can also enhance market security, and "offers opportunities for sharing of risks related to changing circumstances."[6] When multiple carbon markets are linked, there is a larger pool of allowances available for trading, creating a more liquid market; increased liquidity tends to also increase market resilience and the ability of the market to absorb shocks such as sudden changes in commodity prices or

[3] Revised Preliminary Regulatory Analysis, Washington State Department of Ecology Air Quality Program. May 2022. https://apps.ecology.wa.gov/publications/documents/2202019.pdf.
[4] Woerman, Matt. Linking carbon markets with different initial conditions. Journal of Environmental Economics and Management. May 2023. https://www.sciencedirect.com/science/article/abs/pii/S0095069623000384
[5] Burtraw, Dallas et al. Linking by Degrees: Incremental Alignment of Cap-and-Trade Markets. Resources for the Future. April 2013. https://media.rff.org/documents/RFF-DP-13-04.pdf.
[6] Ibid.

in currency exchange rates.[7,8] This increased liquidity and security makes it easier for companies to plan their emissions reductions and invest in low-carbon technologies.

Furthermore, by sharing information, regulators can learn from each other's experiences and share best practices, leading to more effective program management and a stronger overall market. Administration of a linked market is also more efficient, benefiting from reduced program costs and streamlined processes that benefit both regulators and companies across a linked system.[9]

Streamlined compliance, reduced administrative costs, a single allowance price, and increased market security all contribute to a more effective and efficient cap-and-invest program that will drive down greenhouse gas emissions over time.

Linkage between Washington's program and the joint California-Quebec emissions trading system would be a major achievement for the climate, building momentum for bold climate action and signaling a common, large-scale effort to reduce greenhouse gas emissions.

Climate change is a global problem, and greenhouse gas emissions are a global pollutant. Climate leadership states like Washington are essential for driving progress to cut emissions, and Washington's Climate Commitment Act is an important model of climate action that other jurisdictions should follow. Linkage would be a concrete step towards achieving the greater level of cooperation that is necessary to prevent the most dangerous and irreversible impacts of climate change.

To realize the benefits of linkage to their fullest potential, we urge Ecology to work towards a functioning linked market as soon as possible, but no later than 2025. Linkage during the first compliance period of the Washington cap-and-invest program would provide stability and certainty to regulated entities while locking in benefits for energy affordability as soon as possible.

Linkage Criteria

The Climate Commitment Act lays out four criteria that must be evaluated before Washington can move forward with linking its program with another jurisdiction. Those criteria include:

1) Ensure that the linking jurisdictions have provisions to ensure their programs provide benefits to vulnerable populations and overburdened communities.
2) Ensure that linking would not have an overall negative effect on highly impacted communities in the linking jurisdictions.
3) Ensure that linking markets would not impact Washington's ability to achieve its greenhouse gas emissions reduction limits, including an analysis of pre-2020 unused allowances in a linked program.
4) Ensure that linking markets would reduce the cost of compliance for covered businesses.

In evaluating these criteria, we recommend that Ecology consider the following:

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[7] Environmental Defense Fund and International Emissions Trading Association. A Roadmap for Linkage: Aligning California and Washington's Carbon Prices. July 2022. https://ieta.org/resources/Resources/Reports/ARoadmapforLinkageJuly2022.pdf

[8] Santikarn, M. et al. A Guide to Linking Emissions Trading Systems. International Carbon Action Partnership. 2018. https://icapcarbonaction.com/system/files/document/icap_guide_to_linking_full-report_1.pdf

[9] Ibid.

The Climate Commitment Act gives Ecology broad authority to adjust the program as needed to ensure that Washington's achieves its 2030, 2040, and 2050 climate targets.

The Climate Commitment Act (CCA) grants broad authority to the Washington State Department of Ecology to design and implement its cap-and-invest program, with the flexibility to adjust the program as needed to ensure that the state meets its 2030, 2040, and 2050 emissions reduction targets.

Specifically, the CCA states that Ecology has the authority to evaluate the performance in the program of reducing greenhouse gases, and that "If the evaluation shows that adjustments to the annual allowance budgets are necessary for covered entities to achieve their proportionate share of the 2030 and 2040 emission reduction limits identified in RCW 70A.45.020, as applicable, the department shall adjust the annual allowance budgets accordingly."

This provision gives Ecology the power, if necessary, to adjust the number of allowances available to regulated entities to ensure that the state stays on track to meet its 2030, 2040, and 2050 climate targets.

Additionally, evaluation of Washington's ability to meet its 2030, 2040, and 2050 climate targets should include consideration of complementary policies that will work alongside the cap-and-invest program to collectively ensure that the state can meet its goals. Together, these policies create a comprehensive and flexible approach to reducing greenhouse gas emissions and transitioning to a clean energy economy.

Cumulative emissions reductions are a critical metric for effective climate action, and progress towards shared emission reduction goals at the regional scale can be reflected in emissions accounting.

The impact of long-lived greenhouse gas emissions in the atmosphere is cumulative; much of the pollution we are emitting into the atmosphere today will linger and continue to cause warming for decades to come. Cumulative emissions levels are a major determinant of the level of warming that our planet experiences, and it's critical that our approach to climate policy is consistent not only with in-year targets, but also with assessments of carbon dioxide budgets that estimate the cumulative amount of carbon dioxide that can be emitted while staying below science-based temperature targets. That is, effective climate policy needs to achieve an emissions decline **pathway** with a persistent downwards trajectory that aligns with estimated carbon dioxide budgets.

Cap-and-invest and cap-and-trade programs with allowance budgets that decline year-over-year are designed to effectively reduce cumulative emissions over time, ensuring that emissions decline in line with a cumulative carbon budget that's aligned with an in-year goal. In a linked emissions market, different marginal costs for reducing pollution will likely lead to a net flow of allowances between jurisdictions. For example, the linkage between California and Quebec, which has been operating since 2014, offers several guideposts for navigating the questions that arise when a smaller market merges with a larger market.

Quebec is typically a net importer of allowances from California, though it was a net exporter to California during the first two years of linkage.[10] It is important to note that though Quebec is a net importer of allowances from California, each net allowance imported by Quebec means that one fewer net emissions allowance was available to regulated entities in California. This approach is consistent with

[10] California Air Resources Board and Government of Quebec. Report on the Net Flow of Compliance Instruments between Quebec and California for the Period 2013-2020. December 2022. https://www.environnement.gouv.qc.ca/changements/carbone/rapport-flux-echanges-droits-emission-ges-quebec-californie-2013-2020-en.pdf

achieving a regional shared carbon budget based on climate targets in the two jurisdictions, and allowed both jurisdictions to achieve their individual climate goals.

An evaluation of linkage criteria should reflect studies on local air pollution in communities in California that face a disproportionate share of environmental health harms.

Under the declining economy-wide cap on emissions, individual regulated businesses make decisions about when and how to reduce emissions based on allowance prices. As explained by ASU Professor Danae Hernández-Cortés, a given cap-and-trade program's ability to reduce emissions and decrease environmental disparities is critically dependent upon the location/spatial distribution of polluting facilities, the marginal abatement costs of those facilities, and their geographic proximity to disadvantaged communities. Strictly looking at emissions production, the ability of facilities to accumulate emissions permits while under the market's cap could theoretically result in an increase in emissions. If the greenhouse gas pollutants regulated under the market are co-emitted with local air pollutants, an increase in emissions would likely coincide with an increase in localized air pollution, thereby amplifying the health impacts experienced by the overburdened communities who typically live nearer to polluting facilities. To calculate how a cap-and-trade program will affect environmental justice gaps, it is thus imperative to note where regulated facilities are located and to model how the emissions that they produce under the program will travel in relation to downwind and disadvantaged communities.

In the long-term, California's Scoping Plan plays out a strategy for achieving emissions reductions of 48% below 1990 levels by 2030. Air quality co-benefits will be substantial. But *where* those co-benefits are located is critical for ensuring that air pollution improves in the most impacted communities. A 2017 report from CalEPA's Office of Environmental Health Hazard Assessment also points out that data analysis of GHG emissions and air pollutants is complicated by differences in regulatory programs, and advocate for "co-reporting of criteria, air-toxic and GHG emissions for the facilities subject to the Cap-and-Trade Program" to aid investigation of emissions impacts.[11] Similarly, the California Air Resources Board has specifically recommended working "with air districts to assess emissions reduction opportunities" and improving "emissions inventory and data transparency" in order to achieve further reductions in air pollution.[12]

A variety of academic studies have been conducted that assess the environmental justice impacts of California's cap-and-trade program. A recent study in the Journal of Public Economics evaluated how California's environmental justice gap—the disproportionately higher pollution concentrations that are systemically experienced by people of color and low-income communities—has changed since the introduction of California's cap-and-trade program in 2013. The study found that since California's program launched, the environmental justice gap has narrowed and disparities in local air pollution concentrations from industrial sources regulated by the market have fallen.[13] In other words, as a result of

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[11] California Environmental Protection Agency Office of Environmental Health Hazard Assessment. Tracking and Evaluation of Benefits and Impacts of Greenhouse Gas Limits in Disadvantaged Communities: Initial Report. February 2017. https://oehha.ca.gov/media/downloads/environmental-justice/report/oehhaab32report020217.pdf

[12] California Air Resource Board. California's Clean Air Approach and Update on the Cap-and-Trade Adaptive Management Process. November 2016. https://ww2.arb.ca.gov/sites/default/files/barcu/board/books/2016/111716/16-10-5pres.pdf.

[13] Meng, Kyle C. and Danae Herdandez-Cortez. Do environmental markets cause environmental injustice? Evidence from California's carbon market. Journal of Public Economics. January 2023. https://www.sciencedirect.com/science/article/pii/S0047272722001888

cap-and-trade, California's disadvantaged communities have experienced a greater reduction in pollution than their non-disadvantaged neighbors.

However, while California has made important progress towards addressing air pollution in disproportionately impacted communities, there remains a significant need for targeted air pollution policies and enhanced monitoring and enforcement to ensure that air quality continues to improve in California's disadvantaged communities and ultimately such unacceptable disparities are eliminated.

In evaluating how California's program has benefitted vulnerable populations and overburdened communities, consider data on how investments of cap-and-trade program revenue have been targeted to provide benefits to California's priority populations.

Investment in environmental justice communities is a clear priority in California's carbon market. At least 35% of the revenue from California's auctioned allowances must be used to benefit priority populations, including disadvantaged communities, low-income communities, and low-income households. CalEPA defines disadvantaged communities based on census tract data relating to socioeconomic status and pollution exposure. Currently, these designated communities include those in the top 25 percent of tracts "experiencing disproportionate amounts of pollution, environmental degradation, and socioeconomic and public health conditions,' those scoring in the highest five percent on the CalEnviroScreen Pollution Burden metric, those identified as disadvantaged by the 2017 census, and those residing on Tribal lands. Low-income households are those at income levels at or below 80 percent of the California state median.

As of 2022, 73% of the cumulative $9.3 billion implemented by California Climate Investments are benefiting priority populations, significantly exceeding that 35 percent statutory minimum.[14] This includes contracts of more than 9,000 affordable housing units, funding of more than 850 transit agency projects, and reductions in more than 78,000 tons of criteria air pollutants.

In Washington state, effective implementation of the Climate Commitment Act's air quality protections can help ensure that the cap-and-invest program provides air quality benefits to communities that are overburdened by air pollution and environmental health harms.

Section 3 of the Climate Commitment Act tasks the Department of Ecology with a four-pronged commitment relating to air quality protection. Ecology must: 1) identify both the communities overburdened by air pollution and the sources of that pollution, 2) expand the state's air quality monitoring infrastructure, 3) reduce criteria air pollutants in those communities, and 4) evaluate reduction strategies periodically to make sure goals are being met. If implemented effectively, these provisions will provide an important safeguard to ensure that criteria air pollution levels are reduced in overburdened communities.

The CCA geographically defines those "overburdened communities" as areas in which "vulnerable populations face combined, multiple environmental harms and health impacts or risks due to exposure to environmental pollutants or contaminants through multiple pathways, which may result in significant disparate adverse health outcomes or effects." That classification is very similar to California's statutory language (described above), which was also updated in 2022 to include Tribal lands in its designation of

[14] California Air Resources Board. Annual Report to the Legislature on California Climate Investments using Cap-and-Trade Auction Proceeds. April 2023. https://ww2.arb.ca.gov/sites/default/files/auction-proceeds/cci_annual_report_2023.pdf

disadvantaged communities.[15] Overlap in this definition and in the minimum revenue investment requirements reflects Washington and California's shared focus on disadvantaged communities, which in turn suggests a promising foundation for linking the two states' carbon markets.

A minimum of 35%, and a goal of 40%, of revenue from Washington's cap-and-invest program must be invested in projects that create direct benefits for communities overburdened by air pollution. An additional 10% or more must be invested in projects that are supported by Tribes.

CCA funding will fund emissions reductions, climate resilience, and air quality improvements in overburdened communities. Specific programs will likely include increasing access to public transportation through transit grants, supporting the clean energy transition through renewable energy investments and affected worker assistance, and addressing health inequities via strengthened air quality monitoring networks. Investment of auction revenue is a critical mechanism for ensuring that overburdened communities and vulnerable populations receive direct benefits from the cap-and-invest program. California's more established cap-and-trade boasts a successful legacy of projects that have collectively saved 560 billion gallons of water, reduced 72 billion vehicle miles traveled, and generated 3.6 billion KWH of renewable energy. With more than 200,000 new urban trees planted, more than 21,000 new jobs created, and more than 10,000 new affordable housing units developed, the California Climate Investments provide a clear model for how CCA proceeds can be invested into the Washington communities most in need of them.

Thank you for considering our comments on potential linkage between Washington's emissions market and the joint California-Quebec emissions market. EDF appreciates the work that the Department of Ecology has done to build and launch a nation-leading cap-and-invest program, and we look forward to continued opportunities for engagement as Washington considers taking a next step towards a coordinated, regional market for reducing climate pollution.

Respectfully submitted,

Kjellen Belcher
Manager, U.S. Climate

Caroline Jones
Senior Analyst, U.S. Climate

Delia Novak
Intern, U.S. Climate

[15] California Air Resources Board. Priority Populations. Accessed May 2023. https://www.caclimateinvestments.ca.gov/priority-populations

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Re: Front and Centered Comments on Ecology's Proposal to Link Washington's Carbon Market with California and Québec

Stephanie Potts
WA Dept. of Ecology - Air Quality Program
P.O. Box 47600
Olympia, WA 98504-7600

May 15, 2023

Dear Ms. Potts:

Thank you for the opportunity to provide input on the question of whether Ecology should pursue linkage of Washington's carbon market with those of California and Québec.

Front and Centered is a climate justice coalition of organizations led by and serving communities of color in Washington. Our mission is to advocate for the interests of frontline communities, who are first and worst impacted by the climate crisis, in advocating for a just transition from an extractive to a regenerative economy. In this letter, we seek to express our concerns surrounding the proposal to link carbon markets. Despite limited information, there is clear indication that the greenhouse gas emissions trading programs that Ecology is considering linking to are operating in a less than satisfactory manner and that linkage would serve only to frustrate both Washington's emission reduction goals and protective measures, as well as those of the linked markets.

Before beginning an analysis of the harms that linkage could cause, it is first necessary to consider Ecology's public participation process. Ecology has solicited public feedback on whether it should actively pursue linkage but has not provided participants sufficient analysis from which to comment. The law sets out criteria that include environmental and human impacts, but the only publicly available information Ecology has provided is an economic analysis on the price of carbon in the market. This focuses more on the cost of compliance, and not the other, arguably more important, societal goals of the programs, including the benefits or harms caused to communities. In other words, Ecology is asking the public to think about the criteria posed by the legislature and to provide feedback but has not provided information to

help them do so. Without any information on the potential effects of linkage Ecology cannot expect to receive useful input from the public.

Ecology is asking the public to provide input on how California and Québec's markets operate even before Ecology itself has looked at how the two markets operate.[1] Instead, Ecology has solicited feedback from the public on how Ecology should go about analyzing the criteria that the legislature gave the department, rather than providing the public with any meaningful analysis as a result of the criteria. Following Ecology's analysis of the criteria, there is no meaningful opportunity for public input prior to Ecology issuing a decision on whether to pursue linking markets.[2] Essentially, Ecology has siloed community voices solely to provide feedback on the criteria Ecology utilizes to analyze a decision with major effects, rather than allowing community voices into the decision itself.

The next opportunity for public comment will be after Ecology has already made a decision to pursue linkage—most likely 2024, at the earliest.[3] At that point, negotiation processes will have already begun and a draft linkage proposal will have been developed, meaning that the opportunity to provide meaningful feedback in opposition of any linkage will be quite limited.

I. Legal Background

RCW 70A.65.210 provides the legal authority for Ecology to link jurisdictions, but it requires that Ecology first make certain findings and hold a public comment period before entering into a linkage agreement. Ecology must consider input received from public comment before finalizing a linkage agreement.[4] If Ecology finds that a full linkage agreement is unlikely to meet criteria set by the legislature, it may enter into a linkage agreement with limitations (including limits on the share of compliance that may be met with allowances originating from linked jurisdictions and other limitations deemed necessary by department).[5]

The criteria that Ecology must consider before entering into a linkage agreement are quite detailed. First, Ecology must determine that any linkage agreement allows for the mutual use and recognition of compliance instruments issued by WA and other linked jurisdictions, broadens the GHG emission reduction opportunities to reduce the cost of compliance on covered entities and consumers, enables allowance auctions to be held jointly and provides for the use of a unified tracking system for compliance instruments, enhances market security, reduces program administration costs, and provides consistent requirements for covered

[1] Washington State Dept. of Ecology, *Cap-and-Invest Linkage Listening Session - April 18, 2023*, YouTube (Apr. 27, 2023), https://www.youtube.com/watch?v=Tvdw_xcjICQ (25:30-26:12, explaining the criteria that Ecology must analyze before linking, but then noting that Ecology has not yet begun to evaluate and that this public process is simply to solicit feedback on what considerations Ecology should have when evaluating criteria).
[2] *Cap-and-Invest Linkage*, Washington State Dept. of Ecology, https://ecology.wa.gov/Air-Climate/Climate-Commitment-Act/Cap-and-invest/Linkage (last visited May 15, 2023)
[3] *Id*.
[4] RCW 70A.65.210(3).
[5] RCW 70A.65.210(3).

entities whose operations span jurisdictional boundaries.[6] Second, Ecology must "ensure that the linking jurisdiction has provisions to ensure the distribution of benefits from the program to vulnerable populations and overburdened communities."[7] Third, any linkage agreement may "not yield net adverse impacts to either jurisdictions' highly impacted communities or analogous communities in the aggregate, relative to the baseline level of emissions."[8] Finally, any linkage agreement Ecology enters into must "[n]ot adversely impact Washington's ability to achieve the emission reduction limits established in the [CCA]."[9] In this final consideration, Ecology "must evaluate and make a finding regarding whether the aggregate number of unused allowances in a linked program would reduce the stringency of Washington's program and the state's ability to achieve its greenhouse gas emissions reduction limits."[10]

II. Linkage is not appropriate, as it will yield net adverse impacts to highly impacted communities and will negatively affect Washington's abilities to achieve its stated emission reduction limits.

A. Linkage would lead to a drop in the price of carbon, leading to less revenue achieved for CCA funds, as well as a reduction in incentive to reduce emissions.

Ecology has already commissioned an independent economic analysis of the cap-and-invest program that estimated allowance prices under different regulatory scenarios.[11] This analysis found that linkage would lead to the lowest cost per metric ton of carbon emissions.[12] Linkage prices were modeled to be around $17 less per metric ton of carbon emissions than the proposed rules set forth by Ecology, which includes frontloading of the release of an allowance price containment reserve (APCR), and around $27 per metric ton of carbon emissions lower than a scenario without linkage or frontloading.[13]

There are also a number of mismatches in policy that have led to a glut of allowances available in the potentially linked markets of California and Québec, and which would likely lead to a reduced incentive for emitters to curtail emissions should Washington link to those markets. Though Washington may have policy measures in place that reduce the number of allowances available for purchase at auction in accordance with the number of offsets purchased, California does not.[14] Further, while in Washington, only certain industries are granted free allowances, in

[6] RCW 70A.65.210(1).
[7] RCW 70A.65.210(3)(b).
[8] RCW 70A.65.210(3)(c).
[9] RCW 70A.65.210(3)(d).
[10] RCW 70A.65.210(3).
[11] Washington State Dept. of Ecology, *Summary of Market Modeling and Analysis of the Proposed Cap and Invest Program* (Publication No. 23-02-010 2022).
[12] *Id*. at 3-4
[13] *Id*.
[14] Isabella Brenda, *Emitting Greenhouse Gases in WA? Here's Who Will Need to Pay Up to Pollute*, Seattle Times (Feb. 26, 2023), https://www.seattletimes.com/seattle-news/environment/emitting-

California, all industrial facilities receive free allowances.[15] Combined with the fact that both Washington and California allow for the "banking" of carbon allowances without expiration dates,[16] it becomes clear that there is a strong risk of having an overabundance of banked allowances become utilized any time the auctioned price of carbon is deemed too high by emitters. In California, the number of banked allowances is "roughly equivalent to all the carbon the companies emit in a year."[17] There are so many banked allowances that the Legislative Analyst's Office (LAO) for California found that the covered entities will be able to continue emitting well above the state's emission reduction goals in 2030.[18] As the Chair of the Independent Emissions Market Advisory Committee for California stated, "[b]ecause of the size of the bank, it's plausible that all the covered sources don't reduce emissions at all over the course of the decade."[19] The California LAO has also noted that this is likely going to be a cyclical problem: "[a]s covered entities begin to see that more allowances than they need are available, some of the allowances offered at state auctions likely will go unsold."[20] These results would only be amplified by linkage, as the number of allowances available to be sold are increased across the markets.

Further, while linkage reduces the cost of compliance for emitters, it also reduces the amount of funds in accounts funded by the carbon markets. This, in turn, means less funds going to overburdened communities, which would pose a problem for overburdened communities in all linked markets, not just Washington.[21]

The current trends out of California's linked market suggests that linking Washington's market would only serve to frustrate both Washington and California's abilities to achieve their respective greenhouse gas emission reduction limits, all while reducing the amount of funds available to overburdened communities.

B. The results from California's market already show that there is continued harm to environmental justice impacted communities from their cap-and-trade model. Linking Washington's cap-and-trade model only serves to exacerbate these harms for both California and Washington residents.

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greenhouse-gases-in-wa-heres-who-will-need-to-pay-up-to-pollute/ ("Comparatively, in California, offsets may be used in addition to pollution allowances.").

[15] *Id*.

[16] *Id*.

[17] Kathleen Ronayne, *California Companies' Pollution Credits Risk Climate Aims*, AP News (Feb. 16, 2022), https://apnews.com/article/climate-business-environment-and-nature-california-pollution-694060aa41a4e78dc8a436a71d57564d (citing the 2022 Annual Report of the Independent Emissions Market Advisory Committee); *see also* Gabriel Petek, *California Legislative Analyst's Office, Assessing California's Climate Policies: The 2022 Scoping Plan Update* 8 (2023), https://lao.ca.gov/Publications/Report/4656.

[18] Petek, *supra* note 17, at 8.

[19] Ronayne, *supra* note 17 (quoting committee Chair Dallas Burtraw).

[20] Petek, *supra* note 17, at 9.

[21] *Id.* at 9 (noting that allowance prices will decline in California as a result of the overabundance of banked allowances, leading to reduction in auction revenue).

While Ecology must analyze whether potential market partners have provisions to ensure their programs provide benefits to vulnerable populations and overburdened communities, the department must also look to what effects would be had by these programs should they be linked.[22]

Multiple reports out of California have shown that while the cap-and-trade program may have raised the cost of emitting some fossil fuels, the rates at which emissions have been changed are not equal.[23] At least two studies have demonstrated that communities of color "are still more exposed to pollution from facilities such as oil refineries when compared to white communities."[24] Further, "[s]ome of those communities even saw the level of emissions grow worse since the start of the cap and trade program."[25] Similarly, multiple studies have drawn into question the impact of offsets for overburdened communities and vulnerable populations.[26]

In other words, the California cap-and-trade program does not actually enact a benefit for overburdened communities and vulnerable populations. Linking Washington's market to California's market would only serve to exacerbate these harms by allowing for a glut of allowances to flood the joint market and drive down the price of carbon, leading to reduced funding for overburdened communities, as well as a reducing incentive for covered emitters to reduce the amount of pollution they are generating.

C. Any benefits of linkage are administrative or favor emitters, but even those benefits are uncertain given the legal status of CARB authority to administer a cap-and-trade program post-2030.

As noted above, linking carbon markets does not benefit overburdened communities and may, in fact, frustrate the state's ability to meet its greenhouse gas emission reduction targets. Given this data, it seems that the only benefits that could credibly be demonstrated from linkage modeling are administrative and/or favor polluters regulated under the market.

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[22] RCW 70A.65.210(3)(b)-(c).

[23] Jonah Valdez, *Is California's Cap-and-Trade Program Hurting the Environment More Than Helping It?*, Los Angeles Times (March 22, 2022), https://www.latimes.com/california/story/2022-03-22/what-has-california-cap-and-trade-accomplished.

[24] *Id*.

[25] *Id*.

[26] Dallas Burtraw & Katelyn Roedner Sutter, *Chapter 1: Carbon Market Reform, in* 2022 ANNUAL REPORT OF THE INDEPENDENT EMISSIONS MARKET ADVISORY COMMITTEE 6, 11 (2022), https://calepa.ca.gov/wp-content/uploads/sites/6/2023/02/2022-ANNUAL-REPORT-OF-THE-INDEPENDENT-EMISSIONS-MARKET-ADVISORY-COMMITTEE-2.pdf ("...the quality and permanence of forest offsets remain important questions."); *see also* Evan Halper, *Burned Trees and Billions in Cash: How a California Climate Program Lets Companies Keep Polluting*, Los Angeles Times (Sept. 8, 2021) ("The California regulators are also tangling with a credentialed group of scholars at Stanford, UC Berkeley, UC Santa Barbara, Columbia University and the University of Utah who have concluded the state is significantly exaggerating the environmental value of the offsets California polluters are buying.").

Administratively, Ecology notes that "[l]arger markets are generally more stable and have more consistent pricing."[27]

While the initial cost of compliance may seem more attractive through a linked market, it is unclear how costs would play out in the long-term. Per the independent economic report commissioned by Ecology, the price of allowances "in a linked market would most likely align more closely with prices in the California-Québec market," rather than the higher prices of an independent Washington market.[28] However, as also explored above, it is unclear how the price of carbon would be affected by the glut of allocations banked in the California market. The California LAO predicts that carbon prices will continue to trend lower as a result of the banked allowances, even without linkage and the introduction of additional allowances.[29]

This does not even account for the uncertainty around the legal authority of the California Air Regulatory Board to administer the California cap and trade program post-2030. Per California Assembly Bill 398, CARB has explicit legal authority to administer a cap and trade program through the end of 2030.[30] However, what happens after 2030 is less clear.[31] The opacity around this legal question has very real implications for the operation of the carbon market in the interim: "[i]f investors know a carbon price will exist, they can evaluate low-carbon technologies; however, the market will not effectively drive investor behavior if the market's future is uncertain. Ambiguity about the market after 2030 introduces risk to investments…."[32] Even if California chooses to rely on a statutory reading that implies an authority for CARB to operate the cap-and-trade market post-2030, this does not remove the need for significant policy alterations to be made to the California market, which itself will introduce uncertainty into the price of carbon. Both the independent commission tasked with the oversight of CARB's implementation of the cap-and-trade program and the California Legislative Analyst's Office have noted the need for substantive changes to the program in order for the state to meet its own emissions reduction targets.[33]

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[27] *Cap-and-Invest Linkage*, *supra* note 2.
[28] *Id*.
[29] Petek, *supra* note 17, at 9.
[30] California Global Warming Solutions Act of 2006, Cal. Assemb. B. 398, Chapter 135 Reg. Sess. 2017-2018 (Ca. 2017), https://leginfo.legislature.ca.gov/faces/billPdf.xhtml?bill_id=201720180AB398&version=20170AB39892CHP.
[31] Danny Cullenward, *Chapter 4: Legal Authority, in* Independent Emissions Market Advisory Committee, 2022 Annual Report of the Independent Emissions Market Advisory Committee 24 (2022), https://calepa.ca.gov/wp-content/uploads/sites/6/2023/02/2022-ANNUAL-REPORT-OF-THE-INDEPENDENT-EMISSIONS-MARKET-ADVISORY-COMMITTEE-2.pdf (analyzing whether the relevant statutes can be read to imply continued authority for CARB to administer the cap-and-trade program post-2030).
[32] Burtraw & Sutter, *supra* note 26, at 6.
[33] *Id*. at 7 ("To achieve the accelerated 2030 emissions reduction target requires the 'cap' to be calibrated to the level of ambition required to meet the state's climate goals."); Petek, *supra* note 17, at 1 ("We also recommend the Legislature consider changes to the cap-and-trade program to address concerns about program stringency.").

These regulatory changes are certain to cause an effect on the price of carbon.[34] As a result, by considering linking in this period of uncertainty around the future of California's carbon market, Ecology is effectively signing up Washington's market for a period of instability.

III. Prior to considering linkage, Washington State should address issues with the independent Washington carbon market.

Washington's independent carbon market faces its own flaws that should be addressed before Ecology considers linking the market with others. As Front and Centered determined in its 2022 report, *Exposing False Solutions: How Washington's Cap and Trade Program Gives Industrial Polluters a Free Pass*, the Washington cap-and-trade program, as currently structured, provides little to no incentive for emitters that are protected under the "emissions-intensive and trade-exposed" (EITE) label to actually reduce any emissions.[35] Also, as noted above, Washington's carbon allowances have no expiration date,[36] meaning that emitters can bank these allowances for as long as they wish, potentially leading to a situation similar to what California is currently facing, where there is a stockpile of allowances that may lead to California failing to meet its greenhouse gas emissions reduction targets.

Ultimately, the cap-and-trade model is flawed in that, at its core, it focuses on the economics of curtailing pollution, rather than the real-world effects of the continued influx of pollutants to vulnerable populations. As such, Front and Centered suggests that at minimum, Ecology take into consideration the following changes to the cap-and-trade program, either prior to or during linkage agreements:

- The establishment of "no-trade zones" in or near overburdened communities;[37]
- The establishment of expiry dates for stored allocations;[38] and
- Further limiting the use of offsets.[39]

IV. Conclusion

[34] *Id.* at 7 ("A challenge with any adjustment to the carbon market is an administrative intervention suggests another may be forthcoming, thereby undermining confidence in the market.").
[35] Greg Karras, Front and Centered, *Exposing False Solutions: How Washington's Cap and Trade Program Gives Industrial Polluters a Free Pass* 1, 2 (2022), https://frontandcentered.org/wp-content/uploads/2022/06/Exposing-False-Solutions-Report-June2022.pdf.
[36] Brenda, *supra* note 14.
[37] *See* Katelyn Sutter & Dr. Meredith Fowlie, *Chapter 2: No-Trade Zones and Facility Level Emission Limits, in* 2022 ANNUAL REPORT OF THE INDEPENDENT EMISSIONS MARKET ADVISORY COMMITTEE 14 (2022), https://calepa.ca.gov/wp-content/uploads/sites/6/2023/02/2022-ANNUAL-REPORT-OF-THE-INDEPENDENT-EMISSIONS-MARKET-ADVISORY-COMMITTEE-2.pdf; Environmental Justice Advisory Committee, 2022 Scoping Plan Recommendations 28, Recommendation C4 (2022), https://ww2.arb.ca.gov/resources-related-ab-32-environmental-justice-advisory-committee-2022-scoping-plan-update.
[38] Sutter & Fowlie, *supra* note 37, at 17.
[39] Environmental Justice Advisory Committee, *supra* note 37, at 27, Recommendation C2.

Carbon markets have inherent conceptual flaws–they allow most major polluters to continue as usual and puts industry in the driver's seat for where we go with GHG policy.[40] Further, they have not met their own expectations in practice, as is seen in the case of California greenhouse gas emissions reduction forecasting.[41] As explored in the comment above, linking will only exacerbate these issues.

We have handed enough carrots to emitters with the development of the cap-and-trade model. Now is the time to craft forward-looking policy and put the power back into the hands of the people and policymakers.

In addition to the above comments, we pose the following questions to Ecology for consideration:

1) It does not seem at all the spirit of the law, nor the intent of the legislature, that cost of compliance for industry should receive the same level of gravity as the effects linkage would have on overburdened communities and vulnerable populations.[42] Is Ecology planning to weight the different criteria considerations provided to the department by the legislature? If so, how?

2) A number of studies on the California cap-and-trade program have found that Black and Latino communities and other communities of color are still more exposed to pollution from facilities covered by the program than are white communities.[43] In fact, some communities actually saw the level of emissions grow worse since the start of cap-and-trade.[44]
    a) How would Ecology deal with the fact that emitters in California have already purchased enough offsets and allowances to afford them the ability to potentially not change business as usual? Would not linking just allow for even more of a glut of allowances across all the linked markets (especially given that California & Québec's market is over five times larger than the Washington market and this is already happening)?

    b) As a result of the above studies, some advocates in California are calling for the implementation of no-trade zones in order to force facilities located near overburdened communities and vulnerable populations to comply with emissions

[40] Karras, *supra* note 35, at 1.
[41] *See, e.g.,* Petek, *supra* note 17, at 1.
[42] RCW 70A.65.005(4) ("The legislature further finds that while enacted carbon policies can be well-intended to reduce greenhouse gas emissions and provide environmental benefits to communities, the policies may not do enough to ensure environmental health disparities are reduced and environmental benefits are provided to those communities most impacted by environmental harms from greenhouse gas and air pollutant emissions.").
[43] Valdez, *supra* note 23.
[44] *Id*.

reductions standards without the assistance of allowances.[45] Would Ecology seek to introduce similar protections in Washington if linkage were to occur?

3) Ecology recently commissioned an independent economic analysis of what would happen if linkage were to occur. The study determined that linkage would actually lead to the lowest cost of allowances. While this would reduce the cost of compliance for industry, it would also lead to reduced funding in the CCA accounts.[46] Why would linkage be beneficial beyond a reduced cost of compliance?

4) Why would Ecology choose to link with California now, when the legal authority of the California Air Resource Board to administer the cap and trade program is undetermined post-2030?[47] Even if legal authority is clarified, the independent government body that is statutorily charged with analyzing and reporting on the California cap and trade program, the legislative analyst's office, and state politicians have noted the need for fundamental updates to California's cap-and-trade model in order for it to even remain functional, much less successful.[48] Why would Ecology link before those changes are determined, when such changes could have a huge effect on the carbon market?

5) Multiple studies of California's offsets have determined that even with oversight, the projects often have no actual beneficial impact (or their impact is otherwise unverifiable).[49] Further, multiple critiques have been leveled at the offset program, noting that it harms local communities by allowing emitters to continue business as usual.[50] How does Ecology plan to ensure there are meaningful impacts to communities as a result of offsets programs?

6) Has Ecology studied how the Inflation Reduction Act will affect: the market price of carbon in both a linked and unlinked market, compliance with carbon emissions

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[45] S*ee* Katelyn Sutter and Dr. Meredith Fowlie, *Chapter 2: No-Trade Zones and Facility Level Emission Limits, in* Independent Emissions Market Advisory Committee, 2022 Annual Report of the Independent Emissions Market Advisory Committee 14 (2022), https://calepa.ca.gov/wp-content/uploads/sites/6/2023/02/2022-ANNUAL-REPORT-OF-THE-INDEPENDENT-EMISSIONS-MARKET-ADVISORY-COMMITTEE-2.pdf.

[46] *Cap-and-Invest Linkage*, *supra* note 2 ("If linking results in lower allowances prices, it could reduce the amount of funding generated for climate projects throughout the state.").

[47] Cullenward, *supra* note 31.

[48] Burtraw & Sutter, *supra* note 26, at 7 ("To achieve the accelerated 2030 emissions reduction target requires the 'cap' to be calibrated to the level of ambition required to meet the state's climate goals."); Petek, *supra* note 17, at 1 ("We also recommend the Legislature consider changes to the cap-and-trade program to address concerns about program stringency."); Ronayne, *supra* note 17 ("State Sen. Bob Wieckowski, a Democrat, said he should have pushed harder to bar companies from keeping saved allowances after 2021, forcing them to start fresh.")

[49] Burtraw & Sutter, *supra* note 26, at 11 ("...the quality and permanence of forest offsets remain important questions."); *see also* Halper, *supra* note 26.

[50] Halper, *supra* note 26.

reduction goals, and greenhouse gas emissions overall?[51] If it has not, when will Ecology study the interaction between federal and state policy on the topic? Will the results be made public?

Sincerely,

Deric Gruen, Co-Executive Director, Programs and Policy
Front and Centered
deric@frontandcentered.org

Nico Wedekind, Attorney
Front and Centered
nico@frontandcentered.org

[51] Meredith Fowlie & Dallas Burtraw, *Chapter 3: Federal and State Climate Policy Interactions, in* 2022 ANNUAL REPORT OF THE INDEPENDENT EMISSIONS MARKET ADVISORY COMMITTEE 18, 18-19 (2022), https://calepa.ca.gov/wp-content/uploads/sites/6/2023/02/2022-ANNUAL-REPORT-OF-THE-INDEPENDENT-EMISSIONS-MARKET-ADVISORY-COMMITTEE-2.pdf (discussing, in part, how IRA subsidies will reduce demand for allowances and carbon prices).

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Washington Cap-and-Invest Linkage Consultation

IETA Submission to Washington State Department of Ecology

May 2023

The **International Emissions Trading Association** **(IETA)** welcomes this opportunity to provide guidance as requested by Washington's Department of Ecology **(ECY)** in its evaluation of Cap-and-Invest linkage with California and Quebec. IETA has long been a supporter of linked compliance carbon markets, noting that linkage plays a central role in cap-and-invest/trade **(for simplicity, hereafter referred to as C&T)** programs by showcasing climate leadership, minimizing compliance costs, improving market functioning, and enhancing mitigation potential. As such, IETA strongly supports Washington to establish formal program linkage with California and Quebec.

For over 20 years, IETA has been the leading global business voice on robust market solutions to tackle climate change while driving clean finance at scale. Our global non-profit organization represents over 300 companies, including many with operations and investments across Washington and the US. IETA's expertise is regularly called upon to inform carbon market solutions that deliver measurable climate outcomes, address economic competitiveness and carbon leakage concerns, balance efficiencies with social equity, and support a just transition.

IETA's following comments build off and provide additional recommendations from our 2022 signature paper, co-authored by the Environmental Defense Fund (EDF), titled ***A Roadmap for Linkage***, evaluating alignment between Washington's draft C&T regulations with California's existing program during the drafting of the CCA regulation in July 2022.

SECTION 1: NORTH AMERICAN CAP-AND-TRADE LINKAGE CONTEXT & BENEFITS

Section 1.1 Context: Existing North American C&T Markets & Linkages

California's C&T program was launched in 2013, as one of the largest carbon pricing systems in the world, with a current cap covering over 200 million tonnes of CO2e. Since its inception, the program has raised over 13 billion USD for the State[1], 57 percent of which has been reinvested into disadvantaged and low-income communities[2]. Further, a recent first-of-its-kind casual study[3] has shown that the C&T program has directly resulted in the studied group of industrial sites reducing emissions by 9% annually from 2012 to 2017.

In addition to California, the Canadian province of Québec launched its own independent C&T program in 2013. After a year-long consultation process, California linked its system to Québec in 2014 as part of the **Western Climate Initiative** **(WCI)**, thereby creating the largest carbon market in North America and the first to be designed and managed by sub-national governments in different countries. Across North America and globally, IETA remains a stalwart supporter of California and Québec's linked climate action and carbon pricing leadership. The formal linkage of

[1] https://ww2.arb.ca.gov/sites/default/files/auction-proceeds/2021_cci_annual_report.pdf
[2] https://climate-xchange.org/wp-content/uploads/2018/08/California_Cap_and_Trade-3-13-2020-spreads.pdf
[3] Hernandez-Cortes, D. and K. C. Meng. 2023. "Do environmental markets cause environmental injustice? Evidence from California's carbon market". Journal of Public Economics 217: 104786. https://scholar.google.com/citations?view_op=view_citation&hl=en&user=9Ri1C0wAAAAJ&citation_for_view=9Ri1C0wAAAAJ:zYLM7Y9cAGgC

two economy-wide C&T programs from different national jurisdictions is a world-leading program showcasing the benefits of a broad and linked carbon pricing system.

Section 1.2 Benefits of Program Linkage

The benefits of cooperative approaches and regional linkage are clear: the bigger and broader the market, the wider the range of abatement opportunities and improved efficiencies, thereby driving down program costs while driving up clean projects, jobs, and market opportunities. Allowing the fungibility with California and Québec will best set up Washington for expanded market potential, cheaper mitigation potential, and enhanced environmental outcome opportunities.

Fundamentally, formal linkage leads to a single allowance price across all linked jurisdictions, thereby reducing total costs to final consumers without sacrificing environmental benefits. In turn, these cost reductions make it easier for regulators to achieve ambitious climate targets and lower overall cap levels. In addition, formal linkage sends a strong political signal of cooperation on climate change which, in and of itself, facilitates enhanced climate ambition. Formal linkage also eliminates competitiveness impacts across jurisdictions, thereby reducing concerns over emissions leakage between linked jurisdictions.

Aside from environmental benefits, formal linkage offers greater market certainty through two pathways. First, the larger number and broader type of entities that can trade with one another leads to improved liquidity and economic efficiency. This contributes to program performance by ensuring that the carbon price accurately reflects underlying abatement costs for a wide group of entities. Second, formal linkage can dampen carbon price volatility caused by regional variations, especially if critical factors such as seasonal weather or economic activity are imperfectly correlated across jurisdictions. This is particularly pertinent to California and Washington, where electric loads peak at separate times.

IETA believes that linked programs can bring higher liquidity and a healthy supply of credits into the market, along with a wide array of abatement opportunities, technological innovation and improved efficiencies resulting in greater emissions reductions.. By linking the markets and increasing liquidity, IETA would expect the price to reach a more efficient level. Our view is that such market integration should aim to minimize distortive effects on the linked carbon market and the forward allowance price curve by harmonizing key design elements that are meant to increase flexibility, drive economic efficiency, price stability and market liquidity, while minimizing distortive effects on the carbon trading market.

SECTION 2: LINKAGE REQUIREMENTS

The Washington cap-and-invest program must attain positive findings across a number of criteria before it decides whether to pursue a potential linkage. One of these requirements is a finding whether the aggregate number of unused allowances in a linked program would, among other things, “reduce the stringency of Washington’s program”. On this criteria, IETA’s view is that the bank of allowances in California results from a binding and stringent program that is causing significant emissions reductions. While some stakeholders believe that an allowance bank implies a lack of significant emission reduction, that is empirically false as evidenced by a number of recent

studies.[4] [5] To that end, the use of those allowances does not impact the stringency of Washington's program from an environmental perspective.

When contemplating market linkage, we recommend ECY consider program alignment with California and Québec on key design elements such as auction price floor and containment mechanisms, the overall cap trajectory, and free allocation principles. Price floor and containment mechanisms ensure efficient bidding whereas the overall cap trajectory informs the overall program stringency and the corresponding budget of allowances, allowing for effective planning and addressing carbon leakage. This alignment is imperative to minimize or avoids price shocks, which would create market disruptions to a wide spectrum of covered entities and compromise the competitiveness and affordability within that market.

Another criteria is that the linking jurisdiction has provisions to ensure the distribution of benefits from the program to vulnerable populations and overburdened communities. In this respect, as well, California's program performs particularly well. For example, as of November 2022, the state had awarded more than 6.7 billion, or 73 percent of total funds, to priority populations, including disadvantaged communities and low-income households.[6] In addition, a recent first-of-its-kind causal study showed that, to date, the cap-and-trade program has reduced local air emission among a selection of industrial sites.[7]

SECTION 3: AREAS FOR FURTHER ALIGNMENT

There is no doubt that Washington's C&T program was designed to be closely aligned with other WCI counterparts. Throughout the rulemaking process, Washington practiced informal linkage with California and Quebec by sharing best practices and earned expertise. ECY made numerous amendments to the regulation to mimic CARB's approach to "support [the] regulatory program and potential linkage."[8] In addition, all three programs are administering online auctioning through WCI Inc. This move allows for easy combining of auctions if a formal linkage were to be executed.

As mentioned above, IETA has already prepared a thorough comparison of Washington's C&T program against California's as part of our ***A Roadmap for Linkage*** paper. While this analysis was published in July 2022, prior to the release of Washington's final C&T regulation, the results are nonetheless promising, showcasing significant measurable alignments between the two programs.

[4] Bayer and Aklin (2020) research the causal impact of the EU ETS on GHG emissions using a generalized synthetic control approach. The authors find that the EU ETS reduced GHG emissions from covered entities by 1.2 billion tons (amounting to a 11.5% reduction) from 2008 to 2016. During this time period, the allowance bank seemed high (around 2.0 billion allowances) and prices seemed relatively low (decreasing from a high of 35 Euros per ton to a low below 5 Euros per ton). This level of abatement achieved nearly half of the Koto Protocol commitments for participating countries, meaning the program operated as the primary climate policy ("workhorse") for achieving EU climate goals during this period. Reference: Bayer, P. and M. Aklin. 2020. "The European Union Emissions Trading System reduced CO2 emissions despite low prices". PNAS 117(16): 8804-8812.

[5] Murray and Maniloff (2015) research the casual impact of RGGI on Northeast US emissions. They find that the program achieved a 24 percent reduction in GHG emissions which accounts for about half of the region's abatement during the study time period. Reference: Murray, B. C. and P. T. Maniloff. 2015. "Why have greenhouse emissions in RGGI states declined? An econometric attrib ution to economic, energy market, and policy factors". Energy Policy 51: 581-519. Study linked here.

[6] California Climate Investments. 2023 Annual Report Fact Sheet.

[7] Hernandez-Cortes and Meng (2023) research the causal impact of California's cap-and-trade program on GHG emissions and local air pollutants at a sample of industrial facilities. They find that the program achieved a 9% annual reduction in GHG emissions from these facilities between 2012 and 2017 when there was a significant bank and relatively low prices below 15 dollars per ton. Reference: HernandezCortes, D. and K. C. Meng. 2023. "Do environmental markets cause environmental injustice? Evidence from California's carbon market". Journal of Public Economics 217: 104786.

[8] Presentation on Draft Chapter 173-441 WAC on 22 July 2021

The paper ranks 43 common design elements, analyzing whether the programs are ready for formal linkage based on the design element in question. Of the forty-three design element twenty were found to be ready for linkage, four were classified as maybe, and only six were found to be not ready for linkage; the remaining elements were not fully developed at the time and thus were excluded from the analysis.

In terms of priority areas for alignment, IETA suggests investigating the following:

- Washington's purchasing limit for emitters is 10% versus California's 25% (WA is required by law). We find that Washington's holding limit is overly restrictive.
- Washington has language on volumes that voluntary market participants can hold of any single vintage (WA required by law). Again, IETA finds that this requirement is overly restrictive.

Section 2.4 Summary

Progress made from draft regulations analyzed by IETA in July 2022 indicates that Washington has implemented program improvements that have increased the C&T alignment with California, better enabling a smooth transition to a linked program. However, as discussed above, several concerns remain that will likely need to be addressed during the lengthy linkage process.

As an additional consideration, we would like to flag recent developments in New York State. With the approval and adoption of New York's **State Climate Action Council Scoping Plan**, the Department of Environmental Conservation is required to implement an economy-wide C&T program by January 2024. Given that ECY has proven experience developing and implementing effective C&T policy, we recommend that Washington works closely to provide support to New York as needed as the state works to implement its upcoming C&T program. New York's close proximity to Quebec raises significant potential linkage benefits. Encouraging aligned programs, where possible, would best position Washington and New York to gain from future collaboration and potential linkage opportunities.

CONCLUSION

Once again, we appreciate this opportunity to record IETA's insights to Washington's State Department of Ecology on the importance of linking the state's Cap-and-Invest program with the joint California-Quebec market. Our community continues to dedicate significant effort to best leverage IETA's deep global and domestic climate finance, policy, accounting and market expertise to provide ECY with solutions-oriented thinking to inform a pragmatic linkage pathway in support of robust program development and enhanced environmental outcomes.

We look forward to more frequent engagement with ECY on policy and strategy development for Washington through 2023. If you have questions or require further information, please contact Joey Hoekstra at **hoekstra@ieta.org**.

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RESOURCES *for the* FUTURE

Comments to the Washington Department of Ecology on Connecting Washington's Cap-and-Invest Program to Other Carbon Markets

Dallas Burtraw and William Shobe

Public Comment
May 2023

RESOURCES *for the* FUTURE

May 15, 2023

Washington Department of Ecology
300 Desmond Drive SE
Lacey, WA 98503

On behalf of Resources for the Future (RFF), we are pleased to share the accompanying comments with the Washington Department of Ecology on the potential for Washington to link its carbon market with the shared market of California and Quebec.

RFF is an independent, nonprofit research institution in Washington, DC. Its mission is to improve environmental, energy, and natural resource decisions through impartial economic research and policy engagement. RFF is committed to being the most widely trusted source of research insights and policy solutions leading to a healthy environment and a thriving economy.

While RFF researchers are encouraged to offer their expertise to inform policy decisions, the views expressed here are those of the individual authors and may differ from those of other RFF experts, its officers, or its directors. RFF does not take positions on specific policy proposals.

The authors of these comments are:

- Dallas Burtraw, Senior Fellow, and
- William Shobe, Professor of Public Policy, University of Virginia.

If you have any questions or would like additional information, please contact Dallas Burtraw at **burtraw@rff.org**.

Sincerely,

Dallas Burtraw
Darius Gaskins Senior Fellow, Resources for the Future
Chair, California Independent Emissions Market Advisory Committee

William Shobe
Professor of Public Policy, University of Virginia

Comments to the Washington Department of Ecology on Connecting Washington's Cap-and-Invest Program to Other Carbon Markets

Dallas Burtraw and William Shobe

We appreciate the opportunity to provide comments on the potential for Washington to link its carbon market with the shared market of California and Quebec. These comments assume that Washington is considering full integration of its market with the jurisdictions of California and Quebec. Full integration of two markets would allow compliance instruments issued in one jurisdiction to be used for compliance in the market of the other jurisdiction.

The economic advantages of linking markets with California and Quebec are substantial and outweigh any disadvantages. Linking would substantially advance Washington's climate policy goals.

Improved cost effectiveness: A primary advantage is the anticipated improved cost effectiveness of a larger carbon market because it is likely to identify emissions reduction opportunities at a lower cost than can a narrow market. One might view this short-run advantage as inconsequential if the long-term policy goal is the virtual decarbonization of the entire economy. However, the attainment of that policy goal hinges on addressing the challenges that appear in the near term. Fluctuations in renewable resources and fossil fuel supply imply fluctuations in the marginal cost of emissions reductions that will be reflected in allowance prices. A market with more diverse energy resources covering a larger geographic area will be less susceptible to variations in resource availability, leading to less price volatility in the carbon market, which lowers the cost of compliance planning by regulated entities.

Market stability: Reducing the cost of compliance is especially important in the early years of a carbon market because, as a new regulatory institution, the carbon market will be unfamiliar to many businesses and households. Prices in every air emissions market, including markets for sulfur dioxide, nitrogen oxides, volatile organic compounds, and greenhouse gases, rise above the anticipated marginal cost of compliance at the launch of the market.[1] This price rise is motivated by the lack of familiarity with the market by regulated parties who tend to exhibit risk-averse behavior by acquiring allowances to ensure their ability to comply with regulations. At the launch of the market, the regulated entities do not have a bank and typically take steps to acquire a bank, driving up the demand for allowances (and their price). Regulated entities are also in the early stages of identifying and implementing changes in operations and investments to reduce emissions. In every previous market, the initial period of relatively high prices has reversed, and prices have quickly fallen to anticipated price levels or below. During this transition period, high prices can be disruptive to businesses and

[1] Dallas Burtraw and Amelia Keyes. 2018. "Recognizing Gravity as a Strong Force in Atmosphere Emissions Markets," *Agricultural and Resource Economics Review,* 47(2): 201-219, **https://doi.org/10.1017/age.2018.12**; see also RFF WP 18-16.

can impose affordability challenges on households. Program design including linking to existing markets can mitigate the price fluctuations associated with standing-up a new carbon market.

Mitigating leakage: A larger market can help mitigate the challenge of leakage of economic activity or emissions to outside the state by aligning the cost of carbon emissions in broader materials and product markets and can provide an economic motivation for investments in clean energy and low-carbon technology and products.

Linking markets promotes policy coordination that improves Washington's economic competitiveness and is essential for addressing climate change.

Regional coordination: An important benefit of linking carbon markets is to promote Washington's climate policy goals on a regional and national basis. The success of the state's carbon market depends on comparable measures taken in other jurisdictions. Further, Washington's coordination with other entities can influence the design of climate policy in other states and nationally.

Participation in a larger market with a large number of actors may reduce the degree of autonomy the state has in policy making decisions. However, the climate policy problem is not one that can be resolved by individual jurisdictions, and meaningful efforts to address the climate crisis inherently involve complex coordination challenges. Joint decision making by multiple jurisdictions is essential for supporting Washington in realizing its climate objectives.

Good governance: Linking jurisdictions within a single market is an effective way to align and coordinate carbon mitigation activities on a broader scale. Nonetheless, it is important for the state to have clear guidelines for public participation in governing the broadened carbon market that would result from linking. Provisions for dispute resolution, and for the possibility of de-linking if required by future circumstances are important components.

Gains from trade: Another potential perceived disadvantage of linking is the financial flow of value and the resulting pattern of investments. Because California and Quebec presently have lower market prices compared to the market price in Washington, one can anticipate that linking would result in Washington compliance entities purchasing allowances from California and Quebec. This appears as financial value flowing outside of Washington to the other jurisdictions, and critics might be concerned that this happens at the expense of investments to reduce emissions that should be occurring inside the state.

There are several responses to this concern. One is that investments in green energy and low-carbon technology and products will accelerate when the program credibility and durability are established. A broader market expands the potential gains businesses will perceive from investing in new technology. Linking to the broader market builds those aspects of Washington's market. Second, the reduction in the cost of allowances in Washington that would likely result from linking would help to reduce the affordability challenge that emerges especially during the initial years of a carbon market. Both outcomes—establishing the credibility of the market and improving the affordability of climate policy—provide crucial support to the durability of the carbon market. Finally, the availability of lower cost avenues for controlling emissions reduces costs for businesses in Washington and *serves to strengthen* the state's economic competitiveness.

Linking carbon markets would comply with Washington's linkage criteria.

Program credibility: Experience in other greenhouse gas markets suggests that price formation in the market is primarily influenced by expectations among the regulated entities.[2] When the market has credibility, entities are willing to make investments to reduce emissions. Linking with other jurisdictions will have a positive effect on Washington's ability to meet emissions reduction commitments because it will greatly enhance the credibility of those commitments, which is essential to unleashing private sector capital to make the investments that are necessary to achieve them.

Encouraging investments: One of the ways that linking encourages investment by covered business is by reducing the *option value* of delaying investments in decarbonization. Option theory suggests that in the face of uncertainty, investors will delay investments even if they appear profitable on an expected value basis to learn more about the future—in this case concerning future carbon regulations and the longevity of the carbon market. Linking will enhance the credibility of carbon pricing and thereby reduce the costs for business that result from delaying the investments that are necessary to achieve the climate policy goals.[3]

Protecting disadvantaged communities: An important feature of the Washington program is the requirement to ensure that linking jurisdictions have provisions to protect vulnerable populations and overburdened communities. California has taken steps to provide this assurance through investments of carbon auction proceeds in disadvantaged communities as identified by the state. Over half of investments in California have been to the advantage of these communities. Moreover, these communities are among those most vulnerable to climate change and to affordability challenges. While there are clear and obvious reasons that carbon pricing is not sufficient to address the climate challenge, carbon pricing is imperative because it improves cost effectiveness and hence the credibility of the climate policy portfolio. Every ton of emissions reduction that can be identified and mitigated through a carbon price is achieved at less cost than the cost that would result from the comparable regulatory program that would be necessary to mitigate that ton. Because a substantial share of emission reduction costs is paid by consumers, reducing the costs of the carbon market works to the advantage of overburdened and disadvantaged communities. Additional provisions to ensure that the carbon market results in air quality improvements across all communities have been suggested in California by the Environmental Justice Advisory Committee and the Independent Emissions Market Advisory Committee.

In summary, linking would have local economic benefits along with national and international ramifications that amplify the leadership role of the state.

Linking has two key benefits. It reduces the cost of achieving Washington's climate goals and broadens the state's influence in advancing climate policy beyond its borders. If Washington links with other jurisdictions in a common effort to drive emissions reductions, it will legitimize and enable efforts to implement carbon pricing and companion regulatory policies to reduce greenhouse gas emissions elsewhere. Linking would substantially enhance the rigor, influence, and durability of Washington's climate policy efforts. The benefits of linking would accrue to all three jurisdictions, but Washington's newly formed carbon market would especially benefit by boosting its stability and the influence that its leadership can have throughout the nation and internationally.

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[2] Geoffroy Dolphin, Michael Pahle, Dallas Burtraw, and Mirjam Kosch, 2023. "A Net-Zero Target Compels a Backward Induction Approach to Climate Policy," under review.

[3] Dallas Burtraw, Karen Palmer, Clayton Munnings, Paige Weber and Matt Woerman 2013. "Linking by Degrees: Incremental Alignment of Cap-and-Trade Markets," RFF Discussion Paper 13-04.

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May 15, 2023

Stephanie Potts
Washington Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600

Comments on Washington Cap-and-Invest Linkage

Dear Ms. Potts,

The Coalition for Renewable Natural Gas (RNG Coalition)[1] offers the following comments pursuant to the Washington Department of Ecology's (Ecology) consideration of linking the state's recently implemented Cap-and-Invest Program (Program) with adjacent markets in California and Quebec. In recent years Washington has begun to emerge as a leader in exploring the role of renewable gas, including Renewable Natural Gas (RNG) and renewable hydrogen, as a greenhouse gas (GHG) reduction strategy. Both fuels are eligible resources under the existing Cap-and-Invest framework.

We applaud the implementation of this Program as a step toward transforming Washington's organic waste and energy sectors through the development and use of biogas, RNG, and clean hydrogen, and believe that increased success could be achieved through linkage. Furthermore, regardless of whether linkage occurs in the near term, Ecology should take steps to align Washington's broader frameworks in areas like renewable gas procurement as a means of "linking by degrees",[2] which will ultimately streamline program alignment.

About the RNG Coalition and the RNG Industry

RNG Coalition is the trade association for the renewable gas industry in the United States and Canada. Our diverse membership is comprised of leading companies across the RNG supply chain. Together we advocate for the sustainable development, deployment, and utilization of renewable gas, so that present and future generations have access to domestic, renewable, clean fuel and energy in Washington and across North America.

The Role of Renewable Gas in Decarbonization

Renewable gases are an important near-term decarbonization strategy for all applications which currently utilize fossil-derived fuels and, in the long-term, will be necessary in energy applications which are not well-suited to electrification, as well as a platform molecule for other fuels and products.

[1] http://www.rngcoalition.com/

[2] This concept is covered in depth by Resources For the Future in their publication *Linking By Degrees: Incremental Alignment of Cap-and-Trade Markets*: https://media.rff.org/documents/RFF-DP-13-04.pdf

Our organization is primarily focused on renewable gas derived from organic waste feedstocks which can achieve compound benefits through (1) the displacement of anthropogenic carbon dioxide (CO_2) emissions from the combustion of fossil fuels, (2) the critical near-term GHG impact of methane capture and destruction, and (3) additional air and water benefits that result from the improved management of organic waste. Recycling organic material in this manner is a key component of a circular economy.

Indeed, organic waste is a serious and growing issue, and climate and other environmental impacts from these wastes require an immediate and ongoing solution. Globally, municipal solid waste is expected to grow 69% from 2.01 billion metric tons (BT) in 2018 to 3.4 BT in 2050 (around 50% of which is organic waste).[3] Moreover, these trends are underpinned by an expected 25% population increase of 2 billion people between now and 2050.[4] Capturing waste biogas for use as renewable energy is a proven technology for addressing GHG emissions and other challenges in the waste sector.

When derived from such waste feedstocks, all commercially available methods of producing renewable gas have excellent lifecycle greenhouse gas performance, exemplified by CI modeling employed by Washington, Oregon, and California's[5] clean fuel programs. Moreover, some renewable gas projects capture and destroy a greater amount of GHG (as measured on a tons of carbon dioxide equivalency basis) than are emitted during the fuel's production and use, making it one of the few fuels available commercially today that can achieve a carbon-negative impact (i.e., better than carbon-neutral).

Furthermore, carbon-negative emissions technologies, and in particular those which operate based on the sequestration of biogenic carbon (e.g, bioenergy with geologic carbon capture and sequestration, biochar with soil carbon sequestration), present an opportunity to accelerate GHG reductions in the energy sector and/or provide useful, non-fossil CO_2 as an additional platform molecule. Employing such technologies will ultimately allow our economy to not only reach, but potentially move beyond carbon neutrality to a point where atmospheric carbon levels can be drawn down to stabilize Earth's climate, if needed. To this end, our industry is working toward the implementation of carbon capture and sequestration at RNG and biogas production facilities, and to create carbon-negative renewable hydrogen or bioliquids as outlined in work conducted by Lawrence Livermore National Laboratory for California.[6]

Conceptual Benefits of Linking Carbon Markets

Washington's Cap-and-Invest Program has the potential to drive climate action across all sectors of the state's economy, with renewable gas poised to play a key role in reducing emissions in line with Washington's net-zero GHG target.[7] Aligning market practices—including for GHG accounting and

[3] https://datatopics.worldbank.org/what-a-waste/trends_in_solid_waste_management.html

[4] https://www.un.org/development/desa/en/news/population/world-population-prospects-2019.html

[5] For example, see the lifecycle analyses conducted by California's Air Resources Board: https://ww3.arb.ca.gov/fuels/lcfs/fuelpathways/pathwaytable.htm

[6] LLNL, *Getting to Neutral: Options for Negative Carbon Emissions in California*, Baker et al., January, 2020, Lawrence Livermore National Laboratory (LLNL) https://www-gs.llnl.gov/content/assets/docs/energy/Getting_to_Neutral.pdf

[7] Washington State Legislature, *RCW 70A.45.020 Greenhouse gas emissions reductions—Reporting requirements*. https://apps.leg.wa.gov/rcw/default.aspx?cite=70A.45.020

renewable gas procurement reporting rules—with other jurisdictions, maintaining aggressive targets that will lead to socially optimal allowance prices, and providing funds for projects with large near-term GHG impacts will allow Ecology to realize that future. Pursuing near-term alignment in applicable segments of the market as a means of linking by degrees should be seen as the first step toward full bilateral linkage,[8] which should be Ecology's goal.

Bilateral linkage would enable participants' access to a broad set of technologies within a larger region. This is expected to lower the overall cost of achieving GHG reductions for shared programs and provide a barrier against cost uncertainty. This result should be viewed as a win-win for both obligated parties and residences of covered jurisdictions from a cost standpoint, will shield against leakage of industry to uncovered jurisdictions (or jurisdictions with GHG policies that vary greatly), and could enable Washington to push for more ambitious targets. If designed correctly, obligated parties and administrators will also achieve both financial and administrative benefits through the alignment of reporting, procurement, and other practices. Finally, bringing multiple jurisdictions under one market can build political momentum for additional jurisdictions considering carbon markets. Similarly, accepting RNG from across North America also provides constituencies for climate action in other states that are looking to Washington for leadership on these issues.

Ecology should ultimately pursue full bilateral linkage, however, linking by degrees also serves as an important near-term strategy toward this goal if Washington or other states are not prepared for full linkage at this time. Washington should begin to develop regulations which align GHG reduction strategies—such as renewable gas procurement—with potential partner jurisdictions.

Aligning Renewable Gas Procurement Rules

Washington's existing Program provides a good starting point for aligning renewable gas procurement practices with existing standards. California is the most immediate linkage candidate, and has both a carbon market and multiple RNG procurement programs which have been developed in line with standard GHG accounting and renewable gas procurement practices. Parts of the existing regulation are in line with such practices—for example, Ecology's treatment of biofuels[9] as carbon neutral at the point of combustion is in alignment with long-standing carbon accounting and climate science. However, other parts of Washington's program could be adjusted or made more specific for better alignment around renewable gas.

Remove Geographic Limitations on Renewable Gas Procurement

Ecology's determination per the Concise Explanatory Statement for Chapter 173-446 WAC that "tracking actual molecules of gas is not required, but a physical connection between the origin of the gas and the end user in Washington with physical flow within or towards Washington as well as a reasonable distance between pipeline injection and the end user in Washington is required" aligns generally with accepted book-and-claim practices. However, the physical flow requirement, and the undefined "reasonable distance" requirement should be viewed as limiting at this time and, importantly, do not

[8] When two jurisdictions formally link their programs, making allowances interchangeable.

[9] Defined as those which are produced from biological feedstocks and reach a lifecycle carbon intensity reduction threshold of 40%.

align with the state's Clean Fuel Standard.[10] Washington should seek to change this, at least until larger volumes of renewable gas is entering North American pipeline systems.

The ability to procure pipeline-injected renewable gas using book-and-claim without restriction across North America is important in the near term because it allows end-users who are willing to pay for the development of these fuels (for sustainability purposes) to do so. If entities are not able to purchase pipeline-injected clean fuels via book-and-claim there will not be enough incentive to drive development of renewable gas to the point where it is a meaningful share of the gas pipeline system. The current limitations imposed by Ecology will simply add cost and complexity to this process, especially considering that RNG purchased under the Clean Fuel Standard will not count under Cap-and-Invest in many scenarios.

The jurisdictions in the world who have motivated the greatest amount of renewable gas development have employed this type of flexible accounting. For example, over 35% of Denmark's gas consumption is already met by RNG today.[11] The Danish Government is now aiming to grow that share to 100% by 2030.[12] Unbundled accounting through guarantee of origin systems (e.g., book-and-claim) has been a key driver of this success story.[13]

Furthermore, given that some gaseous end-uses are expected to be electrified, it is important that long-term end-uses (e.g., high-heat thermal processes) have access to procure in the near-term via book-and-claim through what is likely to become a more targeted, 100% clean gas system in the long term. This will help allocate the limited supply of renewable gases to their highest and best uses.

Require the use of M-RETS Renewable Gas Tracking System

The digital infrastructure designed to support RNG transactions already exists and is ready to be paired with Washington's Cap-and-Invest program. Such systems are proven in Europe[14] and are designed to replace the necessity of tracking of "paper" contracts between a wide variety of counterparties involved in a high number of RNG transactions. M-RETS[15] is a renewable energy credit and renewable thermal credit platform which is currently tracking RNG volumes for non-transportation markets, including California's renewable gas standard and for voluntary RNG procurement, and will likely be used in a number of other similar programs.

We suggest that Ecology take further steps to incorporate the M-RETS system for RNG volumes procured for compliance under the Cap-and-Invest program as a way to standardize RNG tracking while eliminating concerns related to double-counting, ensuring transparency in volume origination, and allowing integration with other programs and markets.

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[10] https://ecology.wa.gov/Air-Climate/Reducing-Greenhouse-Gas-Emissions/Clean-Fuel-Standard#:~:text=In%20Washington%2C%20the%20Clean%20Fuel,below%202017%20levels%20by%202034.

[11] Energinet, "Biomethane" (see Share of Biomethane chart from January 2023 onward). https://en.energinet.dk/Gas/Biomethane/

[12] Energinet, "Danish Biomethane Experience." https://en.energinet.dk/gas/biomethane/danish-biomethane-experience/

[13] https://en.energinet.dk/energy-data/guarantees-of-origin-el-gas-hydrogen/

[14] https://www.ergar.org/abous-us/

[15] https://www.mrets.org/

Further Harmonization with Washington Clean Fuel Standard and Other Programs

We recommend that efforts be made to ensure that the Cap-and-Invest Program's requirements align well with Washington's CFS—allowing for parity across programs and minimizing reporting burden on RNG producers and other transportation market participants. Here it will be important for Washington to employ a standardized lifecycle CI scoring methodology to ensure accuracy and sustainability. We appreciate the work that Washington undertook to develop a version of the Greenhouse Gases, Regulated Emissions, and Energy Use in Technologies (GREET) model in the Clean Fuel Program. We believe this model could be easily adapted when RNG is used in non-transportation applications as a way to demonstrate the 40% CI benefit. A thermal sector GREET model has already been developed by EcoEngineers[16] for use in Minnesota,[17] and could easily be adapted for use in Washington, if necessary. It is important to note that using lifecycle CI scoring to assess the eligibility of biofuels under the Cap-and-Invest program should not be confused with the treatment of RNG emissions at the point of combustion, where all eligible biogenic CO_2 emissions are treated as carbon neutral for the purposes of compliance with Cap-and-Invest.

As previously mentioned, a primary discrepancy between both programs are the geographic limitations currently imposed by the Cap-and-Invest program.

Cost-Recovery for RNG Purchases by Utilities

Washington Utilities and Transport Commission, in coordination with Ecology, should explicitly clarify how RNG purchases by utilities for compliance within the Program will be allowed to receive rate recovery.

Conclusion

RNG Coalition appreciates the opportunity to provide feedback toward Ecology's consideration of linking the Cap-and-Invest program with other markets. RNG and renewable hydrogen are important opportunities within the suite of technologies needed to decarbonize Washington's economy. Either full linkages or "linking by degrees" through harmonized renewable gas accounting will both help motivate the expansion of these critical new industries. Our members look forward to investing in new systems which improve organic waste management, capture methane emissions, and produce clean fuel under the forthcoming Program.

Sincerely,

/S/

Sam Wade
Director of Public Policy
Coalition for Renewable Natural Gas

[16] https://www.ecoengineers.us/

[17] See Minnesota Public Utilities Commission Docket 21-324, searchable here: https://efiling.web.commerce.state.mn.us/edockets/searchDocuments.do?method=showeDocketsSearch&showEdocket=true

1017 L Street #513
Sacramento, CA 95814
(916) 588-3033
sam@rngcoalition.com

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May 14, 2023

Ms. Stephanie Potts
WA Dept. of Ecology
P.O. Box 47600
Olympia, WA 98504-7600

RE: Comments on the process of determining whether to pursue linkage of Washington's carbon market with California and Quebec's linked market

Dear Ms. Potts,

Thank you for the opportunity to provide input on Washington's pending decision on whether to pursue linkage of its cap-and-invest program with the Western Climate Initiative (WCI) carbon market administered jointly by California and Quebec. The Stockholm Environment Institute (SEI) is an international non-profit research and policy organization focusing on environment and development challenges. SEI's US center has an office in Seattle, with a focus on local, national, and international climate change policy.

We write as experts with over four decades of collective experience in the design and implementation of greenhouse gas emissions trading policies, including research and hands-on experience related to the design of the California-Quebec carbon market and the linking of emissions trading systems (ETS). To inform this letter, we consulted with key observers and stakeholders in Washington, California, and Quebec to gather insights on the prospects, obstacles, benefits, and risks of linking the systems.

Summary

This comment letter responds to the linkage criteria and questions posed by Ecology, even if is not structured around them. The ability for linkage to provide benefits to vulnerable populations and overburdened communities (Criteria #1) will depend critically on the scale and stability of revenues available to fund associated programs, which, in turn, will be a function of the impact of linkage on allowance prices, auction revenues, and program sustainability. Given that Washington's program is currently far more stringent, absent steps to increase the ambition of California's program, *full* linkage is likely to significantly reduce WA CCA allowance prices – on the order of 40% as we estimate roughly below – and along with this, the associated cost of compliance for covered businesses in the state (Criteria #4). Therefore, Ecology must balance the tradeoffs in meeting both criteria #1 and #4: reducing compliance costs also means reducing auction revenues and the benefits from investing those revenues in overburdened communities and in emission-reducing activities and infrastructure.

Without a tightening of the California cap-and-trade program's 2030 cap, the authorization of California's program beyond 2030, and other measures to reduce the impact of the large bank (or "overhang") of unused allowances in the linked California-Quebec system, linking could negatively impact Washington's

ability to achieve its greenhouse gas (GHG) emission reduction limits (Criteria #3). Indeed, as we explain below, linkage could even result in a net increase in global GHG emissions.

By examining these questions and tradeoffs, we hope to support Ecology not only in its process of determining *whether* to pursue linkage with California and Quebec's markets, but also in deciding *how* to proceed. In summary, we recommend that Ecology:

1. **Make *full* linkage with California and Quebec contingent on California extending its program beyond 2030**;
2. **Make *full* linkage with California and Quebec contingent on California increasing the stringency of its 2030 cap** and/or taking other measures to reduce the extent or impact of the large bank of unused WCI allowances;
3. **Pursue implementation a partial or *restricted* link with California and Quebec** until the above are achieved, for example, in the form of a limit on the import of WCI allowances as described below; and
4. **Conduct indicative analysis to quantify the scale of potential impacts** of linkage on allowance prices, auction revenues, and net flow of allowances, and in-state emission reductions (as illustrated below) to inform its deliberations.

Fortunately, steps are already underway in California that could extend the program and increase its stringency, such as the CARB rulemaking process planned for 2024, and draft legislation that would direct CARB to evaluate adjustments to the cap and supply of allowances and offsets so that the stricter 2030 target consistent with the latest Scoping Plan is met. However, progress could prove slow and uncertain. Until sufficient adjustments are made to California's system, restricted linkage can offer many of the benefits of fuller linkage. Restricted linking can provide Washington's regulated entities with access to a sufficient amount of WCI allowances to lower allowance prices (e.g., through a limit of 2-3% of compliance obligations in the first compliance period). It can do so, while also maintaining guardrails that constrain the potential negative impacts of full linkage on vulnerable populations and overburdened communities in Washington and on overall environmental integrity.

In addition, several program elements, such as the handling of electricity imports or non-compliance penalties, will be important either to align fully or to ensure that differences among programs do not lead to unintended negative consequences. It would also be ideal for California and Quebec to adopt an Emissions Containment Reserve and place offsets under the cap.

Background

Whether to link to other carbon markets is one of the most important policy decisions in designing a cap-and-invest program. Linking has many potential benefits. As Ecology notes, larger markets tend to be more liquid and stable. They also tend to be more efficient, making it easier to access least-cost abatement opportunities and "smoothing out" transitions across multiple sectors and geographies.

Partly because of this, interlinked carbon markets can help to sustain broad-based climate action, which will be essential over the long run if the country, and world, are to successfully limit climate change. It can be difficult for a single jurisdiction to pursue ambitious measures on its own. Wide and deep coalitions, built upon a common carbon pricing regime, can pave the way for sustained effort, with fewer free riders, lower risk of industry migration, and broader economic benefits all around .

Despite being (as Ecology notes) the "second of its kind" in the United States, Washington's cap-and-invest program is groundbreaking in several ways. Multiple design features – including ambitious long-term cap schedules, price and emission containment reserves, protections for overburdened communities, and an approach to carbon offsets that places them "under the cap" – provide innovative solutions to problems confronted by other emission trading programs.

Linking cap-and-invest programs does not require 100% alignment on all design features. However, as Ecology considers a linkage with California and Quebec, it should ensure that doing so will not compromise any of the unique guardrails of Washington's program. For example, Ecology must guard against weakening the State's efforts to reduce greenhouse gas emissions. As Ecology alludes to in its solicitation of comments, linking to the California-Quebec market could lead to "unused" allowances in that program being used for compliance in Washington. If such use becomes too prevalent, it could result in less auction revenue for Washington, lower levels of mitigation investment, and fewer total reductions of both greenhouse gases and local pollutants.

Essential conditions for linkage

The conditions for successful linkage of emissions trading systems have been the subject of ongoing research and policy analysis over the past two decades. A key insight is that not all program features need to be aligned to enable linkage. However, alignment may be important in some areas. Following Mace et al. (2008) and Burtraw et al. (2013), for example, alignment priorities can be roughly classified as follows in Table 1. (The list in Table 1 is not exhaustive, nor do all observers agree on the set of elements for which alignment is "necessary" versus "desirable".)

Washington's system is relatively unique in that it was designed from the start to be "WCI-linkage ready", with most design elements aligned with California's and Quebec's from the start. As indicated by italics in Table 1, many of the priority items, such as sectoral coverage and price collars, are either identical or otherwise well-aligned.

Table 1. Priorities for program alignment when linking carbon markets (elements already largely aligned in italics)

Level of priority	Examples of program elements
Alignment is important to ensure a functioning market	• *Measurement methods* • Penalties for non-compliance • *Price collars (ceiling & floor prices)* • *Borrowing rules* • *Allowance tracking systems* • **Comparable time horizons**
Alignment is desirable for smooth market function and/or politically important	• *Governance provisions* • Carbon offset rules • *Purchase and holding limits* • **Comparability of ambition / stringency**
Alignment is "good to have" but not necessary	• *Allowance allocation policies (including auctions)* • Treatment of energy-intensive, trade exposed industries (EITEs) • *Sectoral coverage*

Two elements stand out, however, in Table 1, both for their high importance and their potential misalignment: comparable time horizons and levels of ambition. Researchers have noted that while linking can yield multiple benefits, it faces particular challenges where the time horizons and ambition of linked programs differ markedly (Bodansky et al. 2015; Burtraw et al. 2013; Flachsland et al. 2009; Mace et al. 2008; Ranson and Stavins 2016).

Aligning time horizons and ambition

Aligning time horizons is particularly important. If one program ceases to operate before the other, then continued linkage is obviously impossible. More importantly, as the date of cessation approaches, market distortions can arise that make linkage untenable. Adopting similar time horizons (over which declining emission caps are defined upfront) is essential for providing investment certainty for participants in a linked market, and for ensuring that programs have comparable levels of ambition. As we discuss below, it would be unwise for WA to link its program, authorized through 2050, to fully link with California's program until there is greater certainty that it will be extended beyond 2030.

The relative "ambition" of a program is defined by multiple factors. In general, ambition is a measure of how quickly emission caps decline relative to emission levels that would have occurred in a program's absence (often referred to as "business as usual"), along with the relative cost of achieving those reductions. A relatively ambitious program will require more rapid reductions, achieved at a higher marginal cost, compared to other programs. Complementary policies – i.e., those that drive emission reductions independently of a cap-and-invest program –also play an important role. If a jurisdiction can aggressively reduce emissions through complementary policies, it may end up with a relatively *unambitious* cap-and-invest program, e.g., if emission caps are set *near or above* levels achievable by those complementary policies. This may not be a flaw in program design, or a sign of lower *overall* ambition; it can simply mean the jurisdiction is relying on its emission trading system as a backstop in

case complementary policies fail to perform, rather than as tool to drive emissions reductions. Or alternatively, the jurisdiction may not have taken adequate steps to tighten its emission caps in response to complementary policies not anticipated when the caps were set. As we discuss below, this is precisely the situation of the California cap-and-trade program, as its Independent Emissions Market Advisory Committee has made abundantly clear in its annual reports (Burtraw et al. 2023).

For a jurisdiction with a relatively ambitious cap-and-invest program, however, linking to a much less ambitious program can pose a challenge. All else equal, the more ambitious program will almost invariably become an importer of allowances from the less ambitious one, because emission reductions can be achieved under the less ambitious program for a lower marginal cost. This could have several implications:

- **A slower rate of emission reductions in the more ambitious jurisdiction**, as reductions that would have been achieved locally are instead achieved in the linked jurisdiction through the acquisition of allowances. In a scenario where the less ambitious jurisdiction has a large bank of *unused* allowances, this could mean fewer emission reductions overall (compared to a scenario without linking), as the import of allowances only depletes the bank.
- **Lower allowance auction revenues for the more ambitious jurisdiction**, compared to a scenario without linking, as linking would lower demand for the jurisdiction's allowances. Lower allowance prices may be a welcome benefit of linking, but lower auction revenues could also mean fewer resources to investment in additional mitigation efforts, and specifically in programs designed to deliver benefits to tribes and EJ communities.
- **Slower realization of the local co-benefits of declining greenhouse gas emissions**. If emissions in the more ambitious jurisdiction decline at a slower rate, then without further safeguards, local air pollutant reductions (which may accompany reductions in greenhouse gas reductions) may also be realized more slowly.
- **Outgoing financial flows** as as regulated entities acquire allowances from the less ambitious jurisdiction, in lieu of investing in local mitigation.

Historically, these kinds of considerations have been an impediment to linking. In the early days of California's cap-and-invest program, for example, California decided against linking to the Regional Greenhouse Gas Initiative (a cap-and-invest program covering much of the New England power sector) possibly because low allowance prices in that system suggested a (relative) lack of ambition (Burtraw et al. 2013). California also explicitly rejected the prospect of linking to the European Union Emissions Trading System (EU ETS) on the grounds that it had (at the time) a large bank of unused allowances (Kahn 2013), which posed precisely the same risks identified above for California's new program.

If Washington is contemplating linkage with other cap-and-invest programs, including the California-Quebec program, consideration of both the time horizon and relative ambition of emission caps should be a key priority.

There is misalignment in time horizon between California's and Washington's programs

The first phase of California and Quebec's emissions trading programs extended from 2013 through 2020. California and Quebec formally linked their markets in January 2014. In 2017, the California legislature authorized an extension of California's program through 2030. Quebec's program, in contrast, has no end date.

The status of California's program after 2030 is uncertain. As the state's Independent Emissions Market Advisory Committee (IEMAC) explains in its 2022 annual report, the California Air Resources Board (CARB) may have the implicit authority to extend the program beyond what the legislature explicitly authorized in 2017 (Burtraw et al. 2023). However, this is subject to significant legal uncertainty. The California Legislative Analyst's Office (LAO) recommends that the legislature explicitly authorize the extension of California's cap-and-invest program beyond 2030 (Petek 2023). While this would provide greater legal certainty, however, questions around the constitutionality of such authorization could arise if it is passed with less than a two-thirds legislative majority (Burtraw et al. 2023).

If California and Washington markets were to link, the limited official time horizon for California's program could create significant uncertainties for Washington market participants. Washington actors would need to make long-term investment decisions (based on a cap schedule extending out to 2050) without knowing whether California entities will face similar constraints over the same time period, or whether they can rely on access to California allowances (and the market liquidity this could afford) over the long run.

As explained further below, the lack of clarity about the post-2030 status of California's program also has implications for the risks posed by California's current and projected bank of unused allowances. Because of these risks, Washington should avoid a full linkage with California and Quebec before California's program is officially extended.

There is misalignment in purpose and ambition between California's and Washington's programs

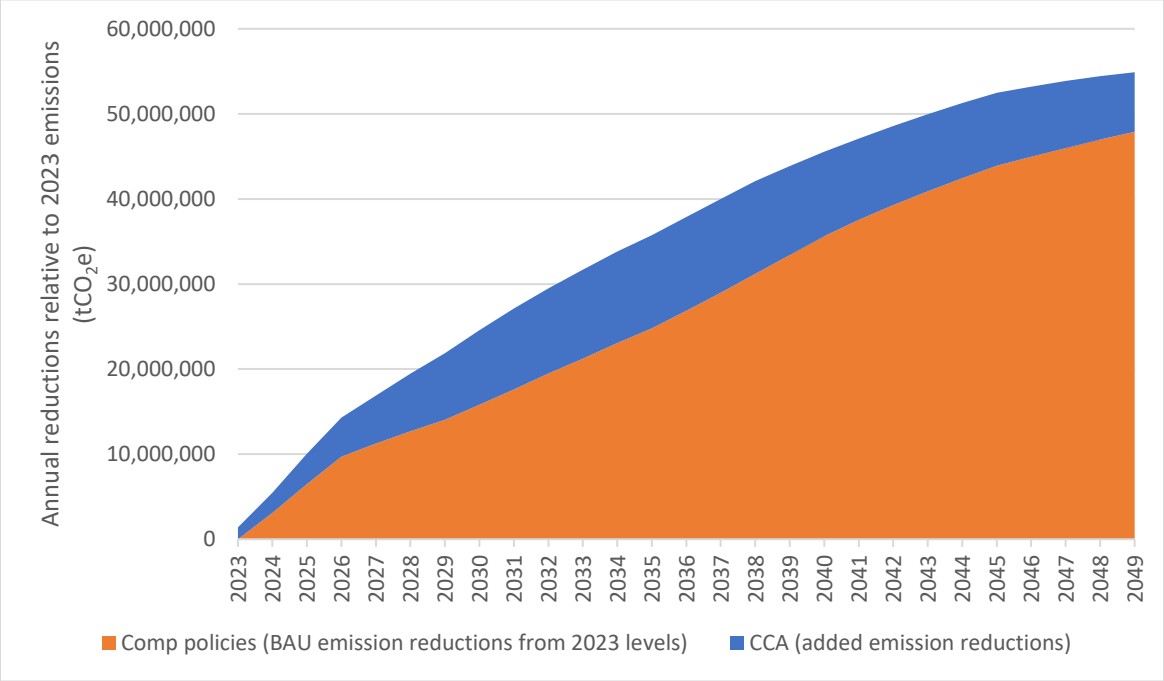
From the beginning, California regulators have been clear that California's cap-and-invest program is one of a wide range of policies designed to achieve California's greenhouse gas emission reduction targets. Early estimates from CARB, for example, suggested that the program was expected to contribute only 20% of the total emission reductions needed to achieve the state's 2020 emissions goal (EPRI 2013). In fact, complementary policies have delivered *more* than was expected. As the IEMAC notes, "To date, regulatory measures have likely delivered most of the emission reductions California has achieved," with the cap-and-invest program serving mainly as a backstop (Burtraw et al. 2023). According to the IEMAC, this is in part because California has adopted more, and more aggressive, complementary policies over time than originally anticipated. These policies include, for example, a significantly more ambitious renewable portfolio standard, required by legislation passed in 2018.

CARB's 2022 Scoping Plan (indicating how the agency plans to meet statewide greenhouse gas reduction goals) suggests the relative contribution of complementary policies may shift in the future, with the cap-and-invest program contributing a larger share of expected emission reductions (CARB 2022). However, the success of complementary policies to date has contributed to the generation of a large bank of unused allowances within the cap-and-invest program. These allowances have not been needed because total emissions at regulated sources fell (well) below California's emissions caps. Both the IEMAC and LAO express concern that the ability of regulated entities to use these allowances, rather than reduce emissions, could mean the cap-and-invest program fails to reduce emissions enough to meet the state's 2030 target (Burtraw et al. 2023; Petek 2023).

Ecology's analysis of Washington's cap-and-invest program suggests it may play a role similar to California's, with Washington's own complementary policies delivering the majority of total emission reductions needed to reach the state's reduction targets through 2050 (Figure 1). However, there are

reasons to believe that Washington will not experience the same unexpected surplus of allowances as California. Regulated entities in Washington will need to reduce emissions at an average rate of 7% per year through 2030. This is a steeper decline than the 4% annual rate of decline in California's emission caps over the same period. As Figure 1 illustrates, this means the contribution of the cap-and-invest program to emission reductions is expected to grow over time, especially after 2025, with only limited banking of allowances in early years.

Figure 1. Relative contribution of the CCA and complementary policies to Washington State emission reductions



Source: Authors' calculations derived from Ecology's primary scenario presented in Washington State Department of Ecology (2022). The orange area represents emission reductions relative to projected 2023 emissions levels, most or all of which are due to complementary policies, as modeled by Vivid Economics.

In summary, California has historically relied on its cap-and-invest program to provide a backstop to its complementary policies – and so far has not adjusted its program in ways that would significantly alter this role. Washington, on the other hand, has adopted a cap-and-invest program that will drive a significant portion of total emission reductions, with very few surplus allowances expected given Washington's current mix of complementary policies. This means that, under current circumstances, Washington's cap-and-invest program is demonstrably more ambitious than California's. Evidence of this is already clear from the respective market prices in these programs, with Washington allowances trading at prices at least 50% higher than those in California.

What this misalignment means for a potential linkage with the California-Quebec program

In short, market fundamentals suggest Washington regulated entities are likely to be net buyers of allowances under any linkage arrangement. Without any restrictions on using allowances from California and Quebec, Washington emissions could therefore follow a trajectory closer to those achieved only through complementary policies, with fewer reductions generated by the cap-and-invest program.

For example, drawing on findings in the market modeling conducted by Vivid Economics in 2022 (Vivid Economics 2022), we estimate that linkage could reduce the effect of the CCA in reducing in-state emissions (i.e., the blue wedge in Figure 1) by approximately 40% in 2030 (see Table 2). This estimate assumes that emissions reductions spurred by the CCA would decline in direct proportion to the drop in carbon price due to linkage. Similarly, we find that state revenues from allowance sales would decline by about 40%, from roughly $15 billion to $9 billion between now and 2030, as shown in Table 3.

The decline in revenue and emissions reductions, is of course, the result of a lower carbon price, which in 2030 – assuming no further changes to the Washington, California, or Quebec programs – might be closer to $60/tCO2e with linkage than to the approximately $100/tCO2e price that Vivid Economics has projected in its modeling analysis without linkage. Indeed, these are the key tradeoffs that Ecology is grappling with in its decision: between a linked program with a lower and potentially more politically sustainable carbon price and an unlinked one with fuller revenue streams (which could be invested, for example, in programs that provide benefits to vulnerable populations and overburdened communities) and greater in-state emissions reductions spurred by the CCA, but greater concerns around political sustainability. (Note that we provide these rough calculations not as definitive estimates but to suggest that Ecology should conduct similar, and more in-depth, analysis using available information to help inform its decisions and balancing of the tradeoffs.)

A key question that an analysis like this can also make clearer is the net effect of linkage on total GHG emission reductions. Linking could mean substituting a sizeable fraction of in-state emission reductions with imported allowances. But does retiring those allowances represent a similar impact on reducing emissions? This depends on the fate of the large allowance overhang in California, and whether California will take steps to extend and strengthen their program.

California's unused allowance bank adds additional risk for achieving Washington's environmental goals and the overall environmental integrity of its cap-and-invest program

While linking cap-and-invest systems with divergent levels of ambition can be problematic, multiple studies have highlighted the additional risks associated with linking to programs that have large unused allowance banks. The concern is that by linking, total emissions across both programs could end up *higher* than in a scenario without linking (La Hoz Theuer et al. 2019; Schneider and La Hoz Theuer 2019).[1] As noted above, this was a particular concern of California's when contemplating a link with the EU ETS.

[1] Where no unused allowance banks exist, linking between programs with different levels of ambition can be problematic, but because their respective caps are "binding" (i.e., they limit emissions below what would have occurred otherwise), total emissions the atmosphere will be the same under linkage as would have occurred without linkage.

*Table 2. Washington state emission reductions due to CCA under unlinked and linked cases, 2023-2030. Illustrative analysis based on Vivid Economics 2022 analysis and simplified assumptions**

		Unlinked case	Linked case			
	Reduction in emissions from 2023 BAU levels due to complementary policies and other developments (MtCO2e)	Emission reductions due to CCA (MtCO2e)	Change in allowance price due to linkage	Emission reductions due to CCA (MtCO2e)	Imported CA/QC allowances used for compliance (MtCO2e)	Use of imported allowances as fraction of cap
2023	0.0	1.4	-30%	1.0		
2024	3.1	2.3	-31%	1.6		
2025	6.5	3.6	-32%	2.4	1.1	2.1%
2026	9.7	4.6	-32%	3.1	1.5	3.0%
2027	11.2	5.7	-34%	3.7	1.9	4.4%
2028	12.7	6.8	-36%	4.3	2.4	6.2%
2029	14.0	7.8	-38%	4.8	3.0	8.7%
2030	15.8	8.7	-40%	5.3	3.5	11.7%
Total	73.0	40.9		26.3	13.5	

* Linked case assumes a linear marginal abatement cost (MAC) curve, with CCA-driven in-state emission reductions being directly proportional to the carbon price in that year, and with CA/QC allowances making up difference. A more detailed modeling analysis would better capture the net costs and intertemporal dynamics of abatement investments.

Table 3. Comparison of CCA allowance prices and auction revenues under unlinked and linkage in 2025 cases, based on Vivid Economics 2022 analysis and authors' calculations

	Unlinked case (with APCR revenue frontloaded)					**Linkage in 2025**				
	Unallocated allowances auctioned (excl reserves) (MtCO2e)	APCR amounts auctioned (MtCO2e)	Total auctioned (MtCO2e)	Price ($/tCO2e)	**State revenue ($B)**	Unallocated allowances auctioned (excl reserves) (MtCO2e)	APCR amounts auctioned (MtCO2e)	Total auctioned (MtCO2e)	Price ($/tCO2e)	**State revenue ($B)**
2023	30.7	10.3	41.1	$58.3	**$2.40**	30.7	0.0	30.7	$40.7	**$1.25**
2024	29.8	0.7	30.5	$61.2	**$1.87**	29.8	0.0	29.8	$41.3	**$1.23**
2025	28.8	7.6	36.3	$64.8	**$2.35**	28.8	0.0	28.8	$43.7	**$1.26**
2026	27.4	0.0	27.4	$70.0	**$1.92**	27.4	0.0	27.4	$46.8	**$1.28**
2027	24.4	0.0	24.4	$76.9	**$1.88**	24.4	0.0	24.4	$50.1	**$1.22**
2028	20.9	0.0	20.9	$84.0	**$1.76**	20.9	0.0	20.9	$53.4	**$1.12**
2029	17.3	0.0	17.3	$92.8	**$1.61**	17.3	0.0	17.3	$56.9	**$0.98**
2030	14.3	0.0	14.3	$100.2	**$1.43**	14.3	0.0	14.3	$60.1	**$0.86**
Total	193.7	18.6	**212.3**		**$15.21**	193.7	0.0	**193.7**		**$9.21**
Notes:	Allowances auctioned drawn from appendix of WA ECY Revised Preliminary Regulatory Analyses (22-02-019), Appendix H1.									
	Linkage prices estimated as the emissions-weighted average of WA and CA-QC prices for 2025-2030, and from linkage anticipated prices in that same analysis (see Regulatory Analysis appendix H.2).									
	CA-QC prices derived from Exhibit 4 of Vivid Economic analysis in WA Ecology (2022), and linearly extrapolated beyond 2026.									

The substantial size of the current unused allowance bank in California is undisputed. California's IEMAC has alluded to this surplus in multiple assessments since its inception in 2018 (Burtraw et al. 2023). CARB's own analysis (CARB 2022, p.113) and analysis from the LAO (Petek 2023, fig.4) suggest the bank consists of more than 300 million allowances, or around one year's worth of emissions from California covered entities. The bank is likely to be drawn down as California's emissions caps decline. CARB asserts that the bank will be "exhausted by the end of the decade" (CARB 2022). In contrast, the LAO contends that – without further reforms – around 200 million allowances could remain unused by 2030 and "[a]s a result, covered entities would have more than enough allowances to comply with the regulation without actually needing to reduce their emissions any farther" (Petek 2023). Although multiple scenarios are possible, independent analyses suggest the risk of the bank persisting through 2030 is significant.

The size of this allowance bank greatly exceeds Washington's potential demand for allowances under a linkage agreement, which as estimated in Table *1*, may be on the order of 13-14 million tCO_2e *cumulatively* between now and 2030. This means there is no guarantee that the use of California allowances by Washington entities through 2030 would correspond, ton-for-ton, to emission reductions.[2] Based on the LAO's analysis, unless California takes steps to address the overhang, Washington's demand would not substantially alter the circumstance where California entities could "comply with the regulation without actually needing to reduce their emissions." Use of California allowances by Washington entities would therefore allow higher emissions in Washington without a corresponding level of reductions in California. The net result could be higher overall emissions (across Washington, California, and Quebec combined) than under a scenario where Washington decided not to link.

Ecology and the authors of the CCA are clearly aware of concerns posed by the large bank of unused California allowances. Section 70A.65.210(3) of the CCA, for example, instructs Ecology to assess "whether the aggregate number of unused allowances in a linked program would reduce the stringency of Washington's program and the state's ability to achieve its greenhouse gas emissions reduction limits." **We suggest that, without further reforms by California, the bank of unused allowances will indeed pose a risk to the stringency of Washington's program.** Furthermore, because the size of this bank greatly exceeds potential demand from Washington – and, through 2030, could even exceed *total emissions* from CCA-regulated entities in Washington – **there is little Ecology can do to rectify this risk on its own (e.g., by "adjusting the number of allowances offered each year" to Washington entities[3]).**

[2] Washington's demand might somewhat reduce the supply of allowances in California, leading to (somewhat) higher prices, and a corresponding increase in California emissions abatement on the margin. However, this would not equate to a ton of CO_2 reduced for each California allowance used by Washington entities.

[3] As suggested in Ecology's online linkage survey: https://ecology.wa.gov/DOE/files/af/afbf6f34-fb93-4a4f-90d4-6f4e6fb8ab3f.pdf

Washington should encourage California to take three steps that could significantly reduce the risks posed by the overhang, and to help align California's ambition with Washington's.

The risks posed by California's unused allowance bank are well understood. Analysts in California have highlighted the challenges it poses for the achievement of the state's own emission reduction goals, and have proposed remedies accordingly (Burtraw et al. 2018; Burtraw et al. 2019; Burtraw et al. 2020; Burtraw et al. 2022; Burtraw et al. 2023; Busch 2017a; Busch 2017b; Petek 2023). Three key recommendations stand out.

- First, California must explicitly extend the time horizon for its cap-and-trade program beyond 2030 (Burtraw et al. 2023; Petek 2023). This would not only better align California's program with Washington's, it would also provide needed clarity for California entities about future emission caps and potential allowance scarcity. This could in turn avoid a devaluing of allowance prices resulting from uncertainty about their value after 2030. As the IEMAC notes, "Ambiguity about the market after 2030 introduces risk to investments in climate-friendly projects relying on a return through the monetization of allowances (or avoiding the need to acquire allowances)" (Burtraw et al. 2023). Removing this ambiguity is the first step in reducing risks to Washington's climate goals posed by a link with California and Quebec's cap-and-invest programs.
- Second, California should tighten its cap for 2030. In its 2022 Scoping Plan, CARB set a revised goal for reducing statewide emissions to 48% below 1990 levels by 2030 (compared to California's statutory goal of a 40% reduction). As discussed in the Scoping Plan, CARB intends to explore during 2023 whether there are any "changes that may be needed to allowance supply to help achieve [this] accelerated target for 2030" (CARB 2022, p.114), and has committed to reporting to the state legislature on its findings. If CARB were to lower its program's 2030 emissions cap, this could help create demand for additional emissions reductions and reduce the existing unused allowance bank.
- Third, California should take other measures to reduce the overhang of unused allowances. Even if CARB revises downward the 2030 cap, this may not guarantee a sufficient drawdown of the unused allowance bank to allay concerns about the environmental risks of linking. When the EU ETS faced a similar bank of unused allowances during the past decade, it undertook a series of measures to calibrate the supply of new allowances entering the market, culminating in the creation of a "market stability reserve" that establishes predefined rules for adjusting allowance allocations based on changing circumstances.[4] These measures greatly accelerated the drawdown of the bank, ensuring that total allowance supply was better aligned with emissions. California's IEMAC has for several years identified analogous approaches that could be adopted in California, reflecting California's unique circumstances. These include creation of an emissions containment reserve (such as already exists under Washington's cap-and-invest program), price floor adjustments, and/or other measures that would adjust allowance supply and how supply enters the market (Burtraw et al. 2023). To reduce the environmental risks of linking, Washington could encourage California to implement these measures.

[4] EU regulators undertook several interventions to reduce the bank of unused allowances, first through "backloading" allowance auctions and ultimately through the creation of the "Market Stability Reserve" – see https://climate.ec.europa.eu/eu-action/eu-emissions-trading-system-eu-ets/market-stability-reserve_en.

Proposals are already in play in California to achieve all three of these objectives. As noted, CARB has committed to exploring possible adjustments to allowance supply in its latest Scoping Plan, and reporting to the state legislature on any necessary legislative authorizations. In parallel, legislation has already been introduced (AB-9) that would direct CARB to "evaluate potential updates to the market-based compliance mechanism" including consideration of the IEMAC's recommendations.[5] Washington's engagement with California on a potential linkage agreement could provide additional impetus for undertaking these reforms. Critically important, however, will be a clear sign that California intends to extend its cap-and-invest program beyond 2030 (and ideally out to 2050, in line with Washington's cap-and-invest time horizon).

Should California not undertake these reforms, Washington may have other options for addressing the potential environmental risks of linkage. One option would be to pursue additional complementary policies to make up for any increase in emissions that might arise under linkage. In simplistic terms, this would mean increasing the size of the orange wedge in Figure 1, proportionate to any reduction in the blue wedge that might occur under linking. Doing so would reduce demand for allowances from the California-Quebec program and would also (all else equal) reduce allowance prices in Washington. In essence, this would shift the role of Washington's cap-and-invest program to something more like the "backstopping" role that California's program has historically played. One consequence could be lower auction revenues in Washington, which could make other goals – such as safeguarding overburdened communities – more difficult to achieve (depending on how revenues are used).

Given the potential challenges of accelerating Washington's already ambitious complementary policies, another option would be to agree to linkage, but under conditions that would regulate potential risks to Washington's greenhouse gas reduction goals.

Restricted linking

Recognition of the issues that WA faces with respect to alignment and linkage with a much larger and well-established WCI ETS system is hardly new. With over 28 distinct ETS operating across the world, and another 21 in preparation or under consideration(ICAP 2023), a rich literature has examined the benefits and challenges of, as well as alternatives to, the type of full linkage that WA is contemplating with WCI.

As this literature shows, there are alternatives to immediate, full linkage that can help jurisdictions in negotiating these differences, delivering many of the benefits (lowering costs) while limiting risks (diminished in-state revenues and emission reductions), especially as greater alignment is pursued. Referred to as restricted linkage, they involve the partial, conditional or restricted recognition of units from another ETS (Burtraw et al. 2013; Füssler et al. 2016; Marcu 2015; Mehling 2016).

In work for the International Climate Action Partnership (ICAP) in 2015, a time when interest in linking ETSs was at its peak, we examined three restricted linking options: *quotas*, *exchange rates, and discount rates* (Lazarus et al. 2015)[6] . Quotas restrict the amount or type of units from other jurisdictions that can be used for compliance. The offset usage limits embedded in the CCA and most other ETSs are a commonly adopted form of quota. Here in the context of WA-WCI linkage, a quota could limit the number of WCI allowances that WA entities could use for compliance. Much like an offset quota, a quota

[5] See: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202320240AB9

[6] This work was later published in the peer-reviewed literature (Schneider et al. 2017).

for imported allowances would help to ensure that a certain fraction of the emission reductions be achieved by regulated WA entities**.**

An allowance import limit could be a practical step towards fuller linkage and achieving linkage criteria

In contrast to immediate, full linkage or other restricted linkage options (exchange rates and discount rates[7]), we believe that **introducing a quota or limit on WCI allowances, could offer a particularly promising step for WA to consider on the path to full linkage**. A limit, properly designed, could help ensure and balance the attainment of the linkage criteria that Ecology needs to satisfy. While sufficient program alignment between WA and WCI could take years to accomplish, a limit could be put into play rather swiftly, with limited additional administrative or procedural effort. By making a quantity of lower cost compliance units available, it would provide immediate cost containment benefits to the extent these are sought. And by limiting the amount of imported allowances available, it would also ensure that the CCA leads to (a certain level of) emission reductions occurring within the state.

The setting of allowance import limits could allow Ecology to place guardrails on the potential loss of anticipated benefits for EJ communities and the loss of future revenue to support emission reduction investment in those and other communities. Conditions could be placed on entities' ability to use of imported allowances, similar to those for offsets, whereby facilities operating in affected communities would lose access to these units if air quality conditions do not improve.

A limit could also serve an incentive for jurisdictions to adopt the regulatory (or legislative) changes required to enable full linkage. The contingency of such a limit would also offer an easier off-ramp to terminate linking arrangements,[8] as well levers to adjust (e.g., limit levels or adding discount rates) should linking concerns prove to be more significant than anticipated.

The limit could be set in a relatively straightforward manner, while balancing multiple factors

A straightforward way to administer a limit would be in the form of fraction of imported allowance units that a covered entity could submit for compliance, much the way that offset limits currently work in the CCA and most other emission trading systems. In setting a limit, Ecology would need to balance several factors, in particular the level of cost reduction desired, the extent of in-state emission reductions sought, the amount of CCA auction revenues desired, and the level of confidence that retiring imported allowances will result in corresponding emission reductions in CA and QC, as well as the expected duration of the limit.

Based on the rough analysis described above, we can illustrate how some of these factors could be taken into account in setting a limit. For example, if a) the limit were intended serve for only the 1st

[7] *Exchange rates* would adjust the value of units transferred between jurisdictions by a conversion factor; while *discount rates*, would also involve a conversion factor, but place a greater value on units of the own jurisdiction. We do not think either approach would be fit for purpose for a WA-WCI linkage. As described in Schneider et al (2017), exchange rates could lead to unintended adverse environmental and economic consequences. Discount rates, on the other hand, might be help to solve for different levels of ambition in the two programs, but would be difficult and politically challenging to administer.

[8] Where linking is formalized in a linking agreement, this may require a termination procedure (Mehling & Haites 2009). The way the termination of a linking agreement is organized may affect abatement costs as well as subsequent price divergence (Pizer & Yates 2015).

compliance period (keeping open the prospect of full linkage starting in 2027 for the 2nd compliance period, should all linkage criteria be adequately satisfied in time for this to occur); and b) the State were to aim for the majority of emissions reductions (e.g. 2/3s or more) due to the CCA to occur in-state, then assuming the figures in the last column of Table 2 above are reasonably accurate, an imported allowance limit covering 2025-2026 (or the full first compliance period of 2023-2026) on the order of 2-3% of compliance units might be appropriate. This would limit allowance imports to what might be needed for immediate compliance, for example, but could avoid the creation of a large bank of unused allowances in Washington.[9]

While such a limit would offer some level of cost containment, WA CCA allowance prices would likely remain above WCI allowance prices. The higher price, at least on an interim basis, could serve as hedge against uncertainty in the full emission reduction value of imported WCI allowances (due to the size of the bank, see above) as well as to ensure adequate revenues for CCA-funded programs. It would also serve to limit the extent of financial flows out of state.

The limit can function in both directions and can be contingent on further progress in program alignment and satisfaction of linkage criteria.

Even though the net flow of allowance units under full or restricted linkage would likely be in the direction of WA state, both WA and WCI jurisdictions could adopt similar imported allowance limits. Indeed, doing so would be in the spirit of pursuing eventual, full linkage. It would also prepare for the possibility that CA might adopt a much more stringent cap for 2030, or that other unanticipated factors lead WA CCA prices to drop below WCI levels in the near future.

The limit could be applied on an interim basis, and renewable contingent upon the extent of progress towards alignment of ambition and time horizon as noted above. It could also be contingent upon assessment of the impact of introducing imported allowance units on satisfying Ecology's linkage criteria, and for example, not leading to an overall negative effect on highly impacted communities in Washington, California, or Québec.

Conclusion

As Ecology has alluded to in its survey questions, there are numerous factors to be considered in any linkage agreement between Washingtons' cap-and-invest program and the WCI program. In this letter, we have focused on the largest structural issues with potential linkage, including the programs' misaligned time horizons and relative ambition, and proposed an approach based on limited or restricted linking until these structural misalignments are addressed. These are not the only issues the Ecology must consider. Although not addressed here, a successful linkage arrangement is likely to depend on other factors as well, including:

[9] Quebec, for example, has been a net importer of allowances from California under the WCI program, but the volume of imports has far exceeded the number of allowances immediately surrendered for compliance, with Quebec entities banking the remainder to meet future obligations. If this dynamic were to play out in Washington, banking by Washington entities could expose Washington's program to added environmental risks, if California did not take steps to reduce the total unused allowance surplus.

- Alignment of non-compliance penalties. This is frequently cited as an essential condition for linking carbon markets, yet independent analyses suggest Washington and WCI are not sufficiently aligned (EDF and IETA 2022).
- Handling of electricity imports. Linkage of the programs as currently configured could cause distortions in Northwest electricity markets and pose possible environmental integrity risks.
- Alignment of carbon offset policies, including bringing offsets under the cap in the WCI program. Washington's policy of keeping offsets under the cap is an important innovation in cap-and-invest program design, eliminating most of the environmental integrity risks associated with offsets. Although not an essential requirement for linkage, Washington should encourage California and Quebec to adopt similar policies to better align their stringency.
- Adopting a common policy for an Emissions Containment Reserve (ECR). As mentioned above, this could be an essential element of California's efforts to reduce its unused allowance bank, as recommended by the California IEMAC. If California adopts an ECR, alignment of ECR provisions across the entire Washington-WCI linked system would be ideal for a smoothly functioning market.

Addressing the first two issues identified above will be essential for any linking agreement. The latter two elements will be important to address under full linkage, which as we argue here, should ultimately be contingent upon aligning both time horizons and ambition.

Finally, we wish to thank Ecology for inviting comments and for the thorough stakeholder engagement work that you are leading. The Climate Commitment Act represents an important milestone not just for Washington's leading climate action efforts but for advancing the design and role of emissions trading systems. We stand ready to assist you further in your pursuit of linkage. Please reach out to us if you have any questions.

Derik Broekhoff, Senior Scientist, SEI US
derik.broekhoff@sei.org

Michael Lazarus, Senior Scientist and Center Director, SEI US
michael.lazarus@sei.org

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STX

STX Commodities, LLC
11 Times Square
31st Floor
New York, NY 10036

Washington Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600

May 15, 2023

RE: Comments in Support of Linkage of Washington's CCA with other Jurisdictions

To Whom it May Concern:

STX Commodities, LLC ("STX") respectfully submits these comments in response to the Department of Ecology's ("Ecology") request for feedback on linkage between Washington's Cap-and-Invest program and other Western Climate Initiative ("WCI") Cap-and-Trade programs.

STX is a global environmental commodity firm dedicated to providing liquidity and efficiency to environmental markets in support of decarbonization. For over fifteen years, STX has been a leader in building trust and stability in carbon and renewable energy markets around the world. We applaud Washington's policymakers for their achievements in developing one of the world's most ambitious carbon markets. The success of Washington's program will help to build trust in carbon markets worldwide and will advance global efforts to mitigate climate change.

Washington's Cap-and-Invest program is poised to provide meaningful economic and environmental benefits to the people of Washington. In support of that goal, STX believes that linkage with California and Quebec's existing Cap-and-Trade programs would stabilize Washington's carbon market, provide for greater market efficiency, reduce costs to Washington residents and businesses, and help ensure the long-term sustainability of the program.

Linkage with the California and Quebec programs is consistent with the requirements outlined in Washington's Climate Commitment Act as it would allow for the mutual use and recognition of compliance instruments issued by Washington and other linked jurisdictions, broaden the greenhouse gas emission reduction opportunities to reduce the costs of compliance on covered entities and consumers, enable allowance auctions to be held jointly and provide for the use of a unified tracking system for compliance instruments, enhance market security, reduce program administration costs, and provide consistent requirements for covered entities whose operations span jurisdictional boundaries.

Further, linkage would not reduce the stringency of Washington's program, nor would it adversely impact Washington's ability to achieve the emission reduction limits established in RCW 70A.45.020. To begin, Washington's 2030 targets are largely consistent with California's 2030 target. Further the legislative intent of RCW 70A.45.020, as directly expressed in "Intent—2020 c 79", declares that it is the intent of the legislature to pursue Washington's greenhouse gas emission limits in a way that maintains Washington's manufacturing economy and avoids leakage of emissions to other

jurisdictions. Consistent with this intent, linkage would advance both imperatives as it would bring parity to regional carbon prices and thus ensure that Washington's manufacturing sector is not subject to excessive prices which could impact their operations or profitability. Such pricing parity would additionally help to protect against emissions leakage, as Washington businesses would not need to consider relocating operations out of state to avoid exorbitant carbon pricing if, in an unlinked scenario, Washington prices were to get pegged to the price ceiling, or above. While Washington has expressed concern over the number of available WCI credits, most market analysts expect the bank to begin drawing within the next two years. This will ensure price parity and stability, without threatening Washington's program goals.

Ecology might be hesitant to consider linkage with California because the California Air Resources Board ("CARB") has yet to set annual emissions targets beyond 2030. STX encourages Ecology to pursue linkage despite this uncertainty for three reasons. First, California has already addressed the need for expanded carbon reduction measures in its most recent Scoping Plan. As a result, CARB is under direction to enact policy change that would achieve those goals. Second, CARB is expected to announce their rulemaking for program extension and modification imminently. California has a long history of leadership on climate action, and it is reasonable to expect this new round of rulemaking to follow suit. Finally, should Ecology find CARB's plans for the future of Cap-and-Trade unacceptable, Washington regulators would have the authority to delink the programs and continue as an independent market – similar to Ontario's linkage and subsequent separation with WCI.

STX supports the decision to link with California and Quebec and believes it is critical to ensure that linkage is effective prior to the conclusion of the first compliance period. This will help to contain prices and ensure the efficient functioning of the market. As Washington's carbon market is a relatively small, pricing is highly sensitive to the activities of relatively few entities that can distort the competitive and efficient functioning of the market. Given sentiment that Washington's program is insufficiently supplied, Washington Carbon Allowance ("WCA") prices will very likely remain at elevated levels and bind to the price ceiling if linkage is not effective before the end of the 1st compliance period.

A larger, linked market will bring additional liquidity, efficiency, and competitiveness to the market. Linkage would bring many participants into the program as California and Quebec currently have over 800 registered entities. A larger participant pool encourages market stability, allows for greater liquidity, and decreases the likelihood that a small number of large players can manipulate the market. Market stability is one of the most significant factors in maintaining a robust and healthy Cap-and-Invest program. STX has seen the same pattern in environmental markets across the globe, where larger more diverse markets bring greater efficiency and stability, thus reducing costs and ensuring long-term sustainability of these programs.

If Washington were to delay linkage to after the 1st compliance period, there is risk that WCA prices will trend to the price ceiling, or higher, and undermine the public's confidence and trust in the State's ability to administer its program and cost-effectively achieve its climate commitments. As recently witnessed in Maryland's Renewable Energy Credit markets, it is evident that small, illiquid environmental markets are prone to irrational pricing that can be sustained above statutory price caps. While these prices defy logic, they lead to uneconomic outcomes that detrimentally impact businesses and households. This would raise the cost of compliance to levels that are unsustainable for many obligated entities. Ultimately, such an outcome would lead to backlash, undermine public support, and threaten the sustainability of a key program that is required for Washington to achieve its climate commitment goals.

Beyond the market stabilizing effects of linking with other jurisdictions, Washington also stands to achieve significant environmental benefits should Ecology choose to pursue linkage. First, carbon is a global problem, not a local one. Without linked programs, emitters can "shop around" for the jurisdiction with the lowest carbon price and shift operations to avoid paying for their emissions. In this way, even though Washington would see emissions reductions on paper, the effective environmental benefits would be far smaller because those emissions would not actually be abated. By linking with nearby carbon markets, Ecology can ensure that emitters are paying for their emissions. Additionally, linking with other carbon markets and moving closer towards a global program is an important step in decarbonization. Linkage is the best way to ensure Washington realizes the maximum possible environmental benefits from the Cap-and-Invest program.

Finally, Washington must consider issues of environmental justice when deciding on linkage. Ecology and the Washington State Legislature have already set admirable and effective rules with the goal of advancing environmental justice. Linkage with the other WCI jurisdictions would only improve those outcomes. Cap-and-Trade programs are often criticized for disregarding communities who have historically borne the brunt of environmental impacts. To the contrary, research indicates that these programs particularly benefit environmentally overburdened communities because these rules specifically target facilities that are more likely to be located in those districts. A 2020 study analyzing California's Cap-and-Trade impacts found that the program reduced environmental justice disparities by between 6-10% annually.[1] Linking with California and Quebec would improve regional emissions reductions progress and pass along those benefits to those who are most impacted. Even considering the historic pattern of improving environmental justice outcomes, STX encourages Ecology to continue to be a leader in setting rules for compliance and offset use to ensure that benefits are prioritized and directed toward communities with potential environmental justice concerns.

Ecology has built a program that is sure to provide the people of Washington with significant environmental benefits. The program is at a turning point and the decision on whether to link with California and Quebec could have long standing impacts on the future health of the Cap-and-Invest in Washington. Linkage will result in improved market stability, environmental benefits, and environmental justice outcomes. Washington has the opportunity to position itself as a leader in the push for global decarbonization. As a result, STX strongly encourages Ecology to pursue linkage as soon as possible, and take steps to ensure that linkage is effective within Washington's first compliance period.

STX appreciates the opportunity to provide comments in this matter. Thank you for your consideration.

Sincerely,

Tim Pabst
Managing Director

[1] Hernandez-Cortes, Danae and Kyle C. Meng. "DO ENVIRONMENTAL MARKETS CAUSE ENVIRONMENTAL INJUSTICE? EVIDENCE FROM CALIFORNIA'S CARBON MARKET." NBER Working Paper Series. National Bureau of Economic Research. Revised May 2022. w27205.pdf (nber.org)

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WASHINGTON CONSERVATION ACTION

May 15, 2023

Stephanie Potts
WA Dept. of Ecology - Air Quality Program
P.O. Box 47600
Olympia, WA 98504-7600

Re: Comments on Cap-and-Invest Linkage Exploratory Process

Dear Ms. Potts:

Thank you for the opportunity to provide comments as Ecology considers whether to pursue linking Washington's cap-and-invest program with the California-Québec greenhouse gas emissions market. As a statewide organization, Washington Conservation Action works to develop, advocate, and defend policies that ensure environmental progress and justice by centering and amplifying the voices of the most impacted communities. We have worked on carbon pricing for over a decade and are committed to realizing a just and equitable implementation of the Climate Commitment Act. We offer the following comments regarding restricted linkage, criteria, overall approach, offsets, and public participation.

Review Options For Restricted Linkage

We support by reference the comment letter submitted by the Stockholm Environment Institute and specifically ask Ecology to evaluate possible restricted linkage options as part of this phase of the linkage analysis. Evaluation of the statutory linkage criteria, offset considerations, and potential necessary changes to program structures, as discussed below, will be critical to determining whether restricted linkage with the California-Québec market would be beneficial.

Linkage Criteria

The following responds to Ecology's request for public input on how to evaluate the linkage criteria identified in RCW 70A.65.210.

WASHINGTON CONSERVATION ACTION

***Ensure that the linking jurisdiction has provisions to ensure the distribution of benefits from the program to vulnerable populations and overburdened communities*.**

We agree with the inclusion of revenue-based benefits as part of the evaluation of this criterion and urge Ecology to also consider information about the program's impacts on air quality in overburdened communities in each jurisdiction.

Additionally, it could be helpful for Ecology to understand and document what, if any, other benefits to overburdened communities and vulnerable populations each of the potential linking jurisdictions may include as part of their program. For example, are there local hire or other labor protection benefits included in a potential linking jurisdiction's structure; are there benefits to local businesses near the covered entities, etc. Understanding and documenting these benefits may inform what, if anything, could be included in a potential linkage agreement.

Ensure that linking would not have an overall negative effect on highly impacted communities in Washington, California or Quebec.

In order to fully evaluate this criterion, Ecology should address several foundational considerations. This includes:

1) Ecology should have a clear understanding of how "highly impacted communities" are designated in each linking jurisdiction and note any substantive differences around definitions and/or designations. Ecology should also examine if and how impacts to these communities are evaluated in each jurisdiction.

   Additionally, Ecology should understand and consider whether federally recognized Tribes in the United States and First Nations and Inuit communities in Canada are included and consulted in the designation of communities.

2) Within Washington, Ecology must fulfill its existing obligation to proactively and meaningfully engage and consult with federally recognized tribes, with sufficient time and information made available.

3) Ecology should actively seek the recommendations of the Washington Environmental Justice Council and provide adequate and timely information for the Council's

deliberations. As part of this process, it would be helpful for Ecology to articulate whether any actions undertaken in pursuing, finalizing, or enacting a linkage agreement will qualify as significant agency actions subject to environmental justice assessment requirements under the HEAL Act. This includes at what stage of the process that designation would occur and how, if designated, the environmental justice assessment would then inform the rest of the process.

Alongside the above foundational considerations, we urge Ecology to address the following in its evaluation of this criterion:

- Direct public input from California and Québec, in addition to a review of each jurisdiction's policies and studies considering program impacts. This may include review of public comment, such as feedback from California communities on CalEnviroScreen, the impacts of being identified as disadvantaged, and/or setting up a process with California and Quebec to conduct public engagement processes.
- Specific analysis on likely impacts of linkage on criteria air pollution in overburdened communities or analogous communities in each jurisdiction.

Ensure that linking markets would not impact Washington's ability to achieve its greenhouse gas reduction limits, including an analysis of pre-2020 unused allowances in a linked program.

As discussed in detail in the Stockholm Environment Institute's comment letter cited above, linking fully with the California-Québec market under current conditions would likely pose an unavoidable threat to Washington's ability to achieve its greenhouse gas reduction limits. This is largely because of the current excess of WCI banked allowances and uncertainty whether California's program will be extended past 2030. Fully evaluating the impacts, and the options for restricted linkage scenarios, will be critical in determining whether and how to proceed with linkage.

As part of evaluating this criterion, Ecology should conduct an analysis of the potential impacts of linkage on in-state and global emissions reductions under various scenarios. Ecology should also be explicit and transparent about the contribution of complementary policies in driving emissions reductions. Since the CCA functions to provide revenue and, in some ways, a backstop for Washington's portfolio of climate laws and policies, this information will be helpful for continued advocacy for strong implementation of complementary policies.

Additionally, Ecology should evaluate how it will manage allowances over time within a linked market. This includes if there are sufficient ways for Ecology to limit or change the number of allowances over the course of the program.

In the long term, to enable ongoing evaluation of the criteria and future linkage decisions, Ecology must develop an accurate and transparent process to track how the cap-and-invest program is impacting greenhouse gas emission reductions over time.

Ensure that linking markets would reduce the cost of compliance for covered businesses.

We urge Ecology to broaden this criterion to include an analysis of potential impacts for consumers, not just covered businesses, in order to fulfill the law's requirements and ensure that linkage supports the need for transparency. This includes evaluation of potential impacts for consumers with mandated cost protections under Washington's program, such as low-income utility customers and agricultural fuel users, and customers without cost protections, such as consumers of transportation fuels.

Additionally, we encourage Ecology to publicly communicate how it is balancing the structural tensions between reducing the costs of compliance and: a) potentially reducing revenues to invest in overburdened communities; and b) ensuring that cap-and-invest program revenue is sufficient for investments that drive greenhouse gas emissions reductions at the scale needed to meet our state emissions limits.

Changes to Program Structures

Based on thorough evaluation of the statutory criteria listed above, Ecology should conduct an analysis of what changes California and Québec would need to make in order to ensure any form of linkage results in net benefits across jurisdictions. Areas of particular importance in this regard include the current excess of WCI banked allowances and uncertainty whether California's program will be extended past 2030. Other areas of importance include issues relating to offsets, as discussed below; electricity imports and electricity markets; alignment of noncompliance penalties across programs, and differences in the treatment of emissions-intensive, trade-exposed facilities.

Ecology should also conduct an analysis to determine what changes to Washington's cap-and-invest program would be necessary or beneficial and whether these changes could be made at the agency level, or would require further legislative action.

Ecology should share the results of these analyses publicly before a decision is made on whether to pursue any form of linkage.

Offsets

Washington's program was structured in part to learn from the challenges faced by California's program. To that end, it is of particular importance that Ecology retains a rigorous approach to offsets in Washington should it pursue linkage and understand the likely implications of linkage to offset projects and the direct environmental benefits they provide. Including offsets under the cap was a major innovation of Washington's approach to cap-and-invest, and it helps to mitigate the potential significant environmental justice impacts of emissions trading programs. Maintaining offsets under the cap is crucial to the integrity of the program, and Washington should strongly advocate for California to adopt this under-the-cap approach. Adoption of an under-the-cap approach in California has the potential to lead to better environmental and social outcomes in both jurisdictions. The following elements are critical to include in Ecology's evaluation of whether to pursue linkage.

1) **Maintaining the unique provisions of Washington's offset program**: Ecology should explicitly address how the structure of the Washington program — with offsets falling under the allowance cap — will be upheld and not weakened within any version of a linked system. Upholding the program's potential to support more environmentally and socially just outcomes also requires Ecology to maintain the provision of the CCA that decreases offset purchasing ability in response to local air quality issues [WAC 173-446-600(7)(d)(i)]. Ecology should develop specific strategies to ensure Washington would maintain offsets below the cap if linked with markets that allow offsets above the cap.

2) **Direct Environmental Benefits**: Ecology should analyze how reducing direct environmental benefits (DEBS) requirements from 100% to 50% or 75% across compliance periods due to linkage may impact local and overburdened communities

and identify strategies to mitigate any disproportionate reduction in benefits. Ecology should also provide clear guidance and/or examples demonstrating how projects implemented outside of the state can meet the DEBS requirement. Ecology should analyze how linkage for offsets may need to be approached differently than allowances in a linked system, due to the Direct Environmental Benefit requirement and the portion of offsets only available for offset projects on Tribal lands.

3) **Price impacts on offset credits:** Analysis should be completed regarding how expected price changes due to linkage will impact cost of offset credits, and how doing so may impact supply and location of offset projects. Offset projects are viewed as an opportunity for landowners, including tribal governments and small forest landowners, to implement improved conservation practices and generate revenue, as well as drawing down additional carbon important to meet our greenhouse gas emissions targets. Linkage may impact the viability of carbon offset projects, and therefore both revenue and environmental impacts locally - particularly in rural areas.

4) **Usage of offset credits across jurisdictions**: Analysis to understand current usage of the offset quota in California will be important. In the event there are additional offset quotas in California that can be used but have not been used to date, analysis will be important to understand how linkage is likely to impact whether regulated facilities pursue offset credits generated under California or Washington. In the event California does not move offsets under the cap, consistent with Washington, a facility purchasing California offset credits will have different impacts on allowances and result in different environmental and social outcomes.

5) **Future offset protocol creation and adjustment**: Under linkage, consistency of offset protocols across linked jurisdictions will be important. Ecology should consider the impacts of linkage on the potential for Washington to independently develop or direct revisions to existing offsets protocols, such as the as-yet unused CARB Urban Forests Protocol. Ecology should also provide clarity on Washington's ability to develop new offset protocols and pursue any protocols outside of a linked program, and how any new protocols will be developed and approved– such as a protocol for aggregating credits among Tribal and/or small forest landowners, or for blue carbon. Ecology should

conduct due diligence to ensure any protocols developed are robust and ensure new or revised protocols do not create asymmetries between jurisdictions.

Public Engagement

To ensure transparency and facilitate public participation, we urge Ecology to clarify opportunities for public engagement during the linkage agreement negotiation process. Specifically, if a decision to pursue linkage is made, there should be opportunities for meaningful public participation before a draft linkage agreement is released. We also urge Ecology to publicly track which outcomes and information from its current review could potentially be incorporated into a linkage agreement and which could not. This transparency will help the public stay connected and informed on the process, benefits, and drawbacks of this critical decision.

Finally, it would be helpful for Ecology to provide more resources, such as one-pagers, infographics, and summaries, to make complex and specialized content more accessible for a general audience.

The decision whether to pursue linkage will have far-reaching consequences for Washington's cap-and-invest program and our state's ability to achieve its statutory greenhouse gas emissions limits. It may also have profound implications for carbon markets on a national and international scale.

We thank Ecology for its careful consideration of this decision and look forward to continuing to participate in the months and years ahead.

Sincerely,
Rebecca Ponzio (Climate and Fossil Fuel Program Director), Rachel Baker (Forest Program Director), Caitlin Krenn (Climate and Clean Energy Campaign Manager) and Katie Fields (Forests and Communities Program Manager)

Contacts for follow up: Rebecca Ponzio (rebecca@waconservationaction.org) and Rachel Baker (r.baker@waconservationaction.org)

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Jim Verburg
Senior Director, NW and SW Climate and Fuels

May 15, 2023

Sent via email to: CCALinkage@ecy.wa.gov

Stephanie Potts
Department of Ecology
Air Quality Program
Cap-and-Invest Program Linkage Planner
P.O. Box 47600
Olympia, WA 98504-7600

Re: *WSPA Comment Letter; Washington State Cap-and-Invest Linkage*

Dear Ms. Potts,

The Western States Petroleum Association (WSPA) appreciates this opportunity to provide feedback on potential linkage of Washington's Cap-and-Invest program with Quebec and California's Cap-and-Trade program. WSPA is a non-profit trade association that represents companies that produce and refine the fuels and create the energy we all need now and for the future, including renewables, biofuels, innovative solar and sustainable energy projects. WSPA and its members companies are committed to working with the Department of Ecology (Ecology) to ensure a well-functioning Cap-and-Invest (C&I) program in Washington, and for this reason WSPA would like to provide the following insights into the potential Washington, California and Quebec carbon market linkage process.

Ecology held three online listening sessions on March 16, March 29, and April 18, 2023 which provided an opportunity for Ecology to connect with stakeholders, share the linkage process and highlight Ecology's analysis of the Climate Commitment Act 2021 (CCA) and four generalized linkage criteria; the listening sessions also provided an opportunity for stakeholders to provide feedback on the process and analysis of linkage criteria. . As part of the feedback process WSPA would like to reiterate areas of concern with the Cap-and-Invest program design, several of which were outlined in our April 29, 2022, letter to Ecology. Addressing these concerns though both legislation and regulatory action is essential to ensure a well-functioning carbon market system that includes Washington, California and Quebec.

Linking programs should not be a required condition for program stability.

WSPA recognizes Washington's desire to be a leader in climate policy. In 2021 the Washington Legislature passed the CCA, with the stated requirement that Ecology develop a program to achieve the green-house-gas (GHG) reduction targets established in HB 2311 (2020), which updated Washington's previous GHG reduction goals established through HB 2815 (2008). Ecology designed the C&I to reduce GHG emissions forty five percent by 2030, seventy percent by 2040 and ninety five percent by 2050 relative to 1990 levels. According to Washington's most emissions inventory report[1] from 1990 to 2019 statewide emissions have increased from 93.5 million metric tons (MMT) to 102.1MMT, or 9 percent. While the baseline for the C&I emissions inventory relies

[1] https://apps.ecology.wa.gov/publications/documents/2202054.pdf

on years 2015 through 2019,[2] the C&I program with its 7% decline vs. the baseline in the first two compliance periods reduces the number of available allowances regulated parties must use for compliance 2-4 times faster than programs in other jurisdictions. This accelerated pace places Washington's regulated businesses and its economy at risk of harm. California's recent Scoping Plan highlighted the challenges of achieving significant emission reductions over a short period of time, recognizing that the pace of technology development and adoption by individuals and business was key to achieving its emission reduction goals cost-effectively.

While the state's GHG reduction targets may not play a direct role in ecology's Linkage criteria, the State should consider its impact on other jurisdictional markets by considering the role these ambitious climate targets will have on the other jurisdiction's economies. Ecology should not need to rely on other jurisdictions to cost-effectively reduce in state emissions rather it should view Linkage to enhance its program, recognition that GHG's are global in nature, one GHG reduction in one jurisdiction is the same as another GHG reduction in another and identifying the most cost-effective means to achieve that reduction is a benefit to all. WSPA recommends Ecology review the phasing of Washingtons GHG reduction requirements, request stakeholder feedback and report to the Washington Legislature recommendations to adjust the pace of its GHG targets and more cost-effectively reduce GHG emissions.

Linking markets will not impact Ecology's ability to achieve Washington's GHG targets.

Ecology has provided stakeholders with a survey of questions to guide stakeholders in the comment process. In this survey Ecology has listed out several Linkage Criteria which largely follow the CCA's guidelines. However, Linkage Criteria #3 highlights several issues that appear to go beyond what the CCA intends by defining a new term, "Unused Allowances". While this term is used in the CCA it is not defined in the CCA, unlike many other terms, nor is unused allowances defined within the C&I regulation. WSPA is concerned Ecology is conflating the allowances currently banked or saved by entities within the California or Quebec markets with those available for purchase in another jurisdiction's account that have not been sold to an entity.

The use of the language in this survey must be an error on Ecology's part that WSPA would like to highlight. This is because the C&I program allows for saving or banking of purchased allowances, if available, up to an entity's Holding Limit, like California and Quebec. It is unclear why Ecology believes the number of allowances currently held by entities in other Jurisdictions should be part of any Linkage Criteria, this notion appears outside of what the CCA intended. Because the CCA does not define allowances currently held by entities as "unused" rather allowances held by entities may be saved or banked for future use. Banking of allowances is an important aspect of any carbon trading program, and its benefits are widely acknowledged as a way to cost-effectively administer a program.

While the definition of the term "allowance" differs based on the jurisdiction:

> Washington: means a business is allowed to emit up to one metric ton of carbon dioxide equivalent. Allowances can be purchased from Ecology, traded, or saved for future use.
>
> California: means a limited tradable authorization to emit up to one metric ton of carbon dioxide equivalent.

[2] https://apps.ecology.wa.gov/publications/SummaryPages/2202047.html

Quebec: a green house gas emission unit, offset credit or early reduction credit, and any emission allowance issued by a partner entity, each allowance having a value corresponding to one metric ton of greenhouse gas CO2 equivalent.

The importance of the role that allowances play in achieving emission reductions should not be minimized. For example, California publishes annually a report on the use of the proceeds from the sale of Cap-and-Trade allowances[3] highlighting an estimated 97.1 MMT of GHG reductions as of November 2022. Allowances result in emission reductions through carbon trading program implementation and represent a cost-effective emission reduction approach as businesses evaluate technologies to reduce emissions over purchasing allowances.

Other program design elements that need modification to align with other jurisdictions

1. Allowance purchase limits: Purchase limits of 10% for covered entities are set too low for optimum management of the program. Washington's purchase limits are inconsistent with auction purchase limits in California, with which Washington desires to link its program. WSPA recommends legislation to amend this original limit to comport to California's 25% auction purchase limit for covered entities at auctions.

2. Definition of bio-fuels: Section 2 of SB5126 (2021) stipulates that "biomass-derived fuels," "biomass fuels" or "biofuels" have "at least 40 percent lower greenhouse gas emissions." [RCW70A.65.010, Definition (12)] Bio-fuels are defined by the U.S. Environmental Protection Agency (EPA)[4] and Washington's definition should similarly utilize the federal definitions. The U.S. EPA does not include a carbon intensity requirement. Similarly, the California Cap-and-Trade program does not stipulate carbon intensity requirements for bio-fuels. Any carbon intensity goals the State has for fuels should be addressed in the Washington Clean Fuels Standard.

3. Restrictions on the Use of Offsets: GHG's are global in nature and impact society as a whole. Use of offsets should not be limited; rather they should be treated the same as a traditional Allowance providing the same, if not more, GHG benefit. The Cap-and-Invest program has a rapid decline in the quantity of offsets that can be used for compliance, owing to both the aggressive initial reduction trajectory of 7%/yr and a limit that only 5% of a covered or opt-in entity's obligation can be met with offsets. In the second compliance period, this limit is further reduced to 4%. [RCW70A.65.170 (3)]. The net impact is that allowed offset use is reduced by about 65% in the first eight years of the program, which quickly reduces the window that any offset project can be developed and economically utilized. Further, SB5126 also required that the annual allowance budget should be reduced by the quantity of offsets used for compliance {RCW70A.65.070 (2)]. This is despite the statutory requirement [RCW70A.65.170 (2)] that an offset represents an actual emission reduction, and results in double-counting of the reduction. Legislation should be progressed to allow a greater quantity of offsets to be allowed for compliance, perhaps by establishing a fixed quantity per year that could be used. In addition, legislation should amend the requirement that annual allowance budgets be reduced by the quantity of offsets used, to eliminate the double-counting that occurs per the existing enabling legislation.

[3] https://ww2.arb.ca.gov/sites/default/files/auction-proceeds/cci_annual_report_2023.pdf
[4] 40 CFR 80 subpart M

WSPA appreciates the opportunity to provide further comment on Cap-and-Invest. While they are important priorities, the key items we have identified in this letter are not all inclusive. We look forward to future discussions with Ecology staff on other program improvements, both legislative and regulatory that will ensure a stable well-functioning carbon market system. If you have any questions about the information presented in this letter, please contact me at (360) 296-0692 or via email at jverburg@wspa.org. I would be happy to discuss our comments with you.

Sincerely,

James Verburg
Senior Director, NW and SW Climate and Fuels
WSPA

Cc: Luke Martland – Washington Dept. of Ecology – CCA Implementation Manager
Jessica Spiegel – WSPA – Senior Director, Northwest Region

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May 15th, 2023

Stephanie Potts,

WA Dept of Ecology,

P.O. Box 47600, Olympia,

WA 98504-7600

Via Email at CCALinkage@ecy.wa.gov

RE: Washington State's Cap-and-invest linkage consultation

Parkland Corporation is pleased to participate in the State of Washington's consultation on the cap-and invest program linkages with the California and Quebec markets.

Parkland is Canada's and the Caribbean's largest, and one of America's fastest growing, independent suppliers and marketers of petroleum products and a leading convenience store operator. With operations in 25 countries, and with over 4,000 retail locations across Canada, the United States, and the Caribbean, our purpose is to *Power Journeys and Energize Communities*. Every day we provide over one million customers with the essential fuels, convenience items and quality foods on which they depend.

We recognize the need to decarbonize our society using a balanced approach that leverages our existing business practices to pursue low-carbon opportunities. As part of our energy transition strategy, Parkland provides a range of choices to allow customers to lower their environmental impact, including carbon and renewables trading, solar power energy solutions, low-carbon fuels and ultra-fast Electric Vehicle (EV) charging stations.

As a global leader in the production of low-carbon fuels which help governments achieve their carbon reduction targets – and help meet the needs of a low-carbon future – we wish to submit the following recommendations as part of the consultation phase.

1. **Market Transparency and Visibility**

We applaud the State of Washington for launching its cap-and-invest program in 2021, as only the second of its kind in the United States. Allowing fungibility with California and Quebec will best set up Washington, and its participants, for enhanced environmental outcome opportunities and reducing total costs to final consumers.

However, as participants in the market, we would encourage that additional transparency and visibility will be necessary moving forward regarding reserve sales. Particularly as Washington is considering

linking with other additional markets, this would allow market participants to better understand the market availability and limit concerns around the availability and affordability of credits. The single allowance price across all linked jurisdictions should be transparent and determined between the linked jurisdictions to provide some certainty in the minimum price of compliance. Further, there is a risk of misalignment due to the purchasing limits in Washington versus California – these differences, amongst others, must be considered when aligning.

2. De-linking risk provisions

Parkland supports, in principle, the proposed linking of the markets between Washington, California and Quebec. We believe ensuring fungibility of allowances between the markets will allow for a more robust ecosystem that will enable more market security, increase the potential for streamlining of auction administration and management, as well as increasing the emission reduction opportunities and balancing the cost of compliance. These are articulated as part of the benefit criteria necessary for the linking to be approved, and we believe the leadership demonstrated by Washington will enable these and other positive outcomes.

However, we would encourage the State of Washington to consider adding provisions within the linking agreement on the process and outcome should one or both aforementioned markets decide to decouple at a later date. This would insulate Washington market participants from the risk of stranded assets or an increased burden for compliance should a decision outside of Washington State's control be undertaken.

Thank you once again for the opportunity to offer our comments and feedback. Should you wish to discuss these comments further or have any additional questions, we would be happy to connect at your earliest availability.

Sincerely,

DocuSigned by:
Jaime McDermott
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Jaime McDermott

Senior Manager - Carbon Compliance

Parkland Corporation

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POET
900 7th St. NW, Suite 820
Washington, D.C. 20001
Ph: (605) 965-2200
poet.com

May 15, 2023

Stephanie Potts
Cap-and-Invest Program Linkage Planner
Washington Department of Ecology
Air Quality Program
PO Box 47600, Olympia, WA 98504-7600

Submitted via email: CCALinkage@ecy.wa.gov

RE: POET Comments on Washington State Cap-and-Invest Linkage to Other Carbon Markets

Dear Ms. Potts,

POET, the world's largest producer of biofuels, appreciates the opportunity to submit these comments to the Washington Department of Ecology (Ecology) in support of linking the agency's Cap-and-Invest program with similar programs in California and Québec. POET supports Washington's goal of reaching net zero greenhouse gas (GHG) emissions by 2050 in part through the Climate Commitment Act (CCA).[1] In linking the Washington, California, and Québec programs, POET urges Ecology to ensure consistency across the programs. The below comments highlight the importance of treating biofuels uniformly across the programs.

About POET

POET's vision is to create a world in sync with nature. As the world's largest producer of biofuels and a global leader in sustainable bioproducts, POET creates plant-based alternatives to fossil fuels that utilize the power of agriculture and cultivate opportunities for America's farm families. Founded in 1987 and headquartered in Sioux Falls, POET operates 33 bioprocessing facilities across eight states and employs more than 2,200 team members. With a suite of bioproducts including Dakota Gold and NexPro feed, Voilà corn oil, purified alcohol, renewable CO2 and JIVE asphalt rejuvenator, POET is committed to innovation and advancing solutions to some of the world's most pressing challenges. POET holds more than 80 patents and continues to break new ground in biotechnology, yielding ever-cleaner and more efficient renewable energy. In 2021, POET released its inaugural Sustainability Report pledging carbon neutrality by 2050.

Treatment of Biofuels under the Programs

Under the CCA, carbon dioxide emissions associated with combustion of biofuels are exempt from compliance obligations if the biofuel achieves a 40% GHG emissions reduction on a

[1] RCW 70A.45.020(1)(c); RCW 70A.65.060(1).

lifecycle basis as compared to the conventional substitute fuel.[2] If a fuel does not achieve a 40% lifecycle reduction it is not considered a "biofuel," and its carbon dioxide combustion emissions would not be exempt from the CCA.

The CCA requires Ecology to "consider opportunities to implement the [Cap-and-Invest] program that allows linking the state's program with those in other jurisdictions."[3] In this rulemaking, Ecology is considering linking Washington's program with the programs in California and Québec. Like Washington, California's and Québec's carbon markets exclude emissions from biomass-derived fuels from the compliance obligations. However, unlike Washington, neither California nor Québec require a 40% reduction of GHG emissions to qualify as an exempted biofuel.[4]

When promulgating the CCA Program rule in 2022, Ecology elected to not define how a party must calculate whether a biofuel achieves the requisite 40% lifecycle emissions reduction to be exempt from the program. In the "Concise Explanatory Statement" accompanying the final rule, Ecology explained that its "working assumption is that all biofuels meet the 40 percent standard for past and near future years unless that verification process clearly indicates otherwise."[5] Ecology stated "that the detailed data and extensive time needed for a true life-cycle analysis will not be available for past and near future years" and committed to "address[ing] the topic in a future rulemaking to allow for the time and data the topic requires."[6]

Environmental Benefits of Bioethanol

Biofuels are an important solution to reducing liquid fuel emissions even as states transition to greater electrification of the transportation sector. Conventional bioethanol has the capacity to substantially reduce GHG transportation emissions while reducing other harmful air pollutants such as BTEX compounds (benzene, toluene, ethylbenzene, and xylene) and PM2.5.[7]

While appreciating the flexibility Ecology has provided, POET remains concerned that Washington's lifecycle analysis could mistakenly conclude that bioethanol does not have 40% lower GHG emissions than gasoline. Recent studies, however, show that corn starch bioethanol's carbon intensity (CI) is 46% lower than that of gasoline.[8] With technologies already being implemented or on the cusp of commercialization, bioethanol has the ability to become a zero-carbon fuel. The chart below compares bioethanol's CI score to a gasoline baseline and shows

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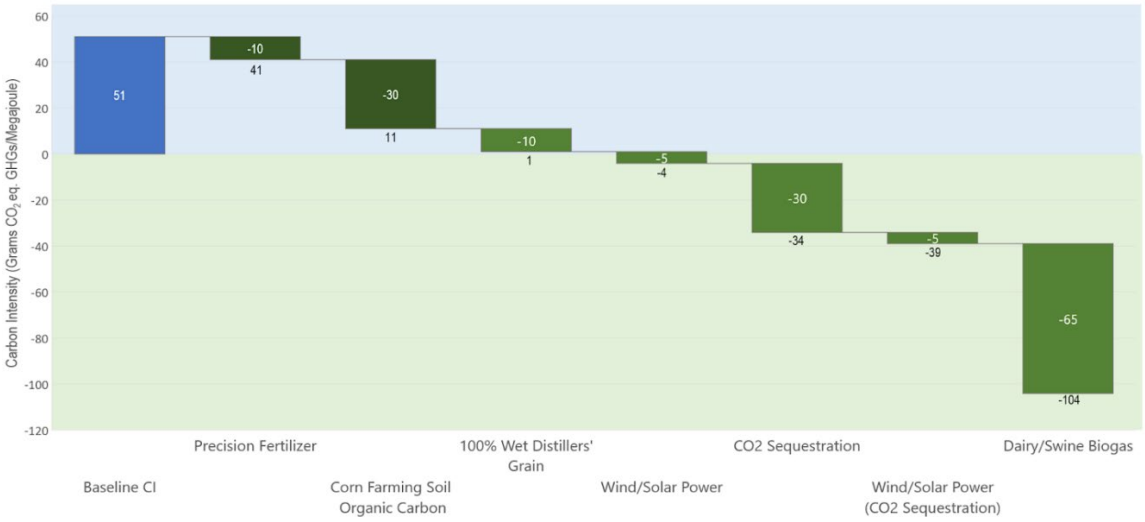
[2] *See* RCW 70A.65.010(12) (defining "biofuels"); RCW 70A.65.080(7)(d) (exempting carbon dioxide combustion emissions of biofuels from the CCA Program).
[3] *See* RCW 70A.65.060(3).
[4] Cal. Code Regs. Title 17 §§ 95802, 95852.2(a) (2022); Q-2, r. 46.1 Sec. 3, Appendix C Part II(B).
[5] Ecology, *Concise Explanatory Statement Chapter 173-446 WAC Climate Commitment Act Program: Summary of Rulemaking and Response to Comments* 220 (Sept. 2022), https://apps.ecology.wa.gov/publications/documents/2202046.pdf.
[6] *Id*.
[7] *See* Kazemiparkouhi, Fatemeh et. al, *Comprehensive US database and model for ethanol blend effects on regulated tailpipe emissions*, 2022 SCIENCE OF THE TOTAL ENVIRONMENT, Vol. 812 151426, https://www.sciencedirect.com/science/article/pii/S0048969721065049.
[8] Sully, Melissa et al., *Carbon Intensity of Corn Ethanol in the United States: State of the Science*, 2021 Environ. Res. Lett 16 043001, 4, 14 (2021), https://iopscience.iop.org/article/10.1088/1748-9326/abde08.

technologies, many of which POET has already implemented and others which the company is evaluating, that would allow bioethanol to become a zero-carbon fuel:



Innovations across the biofuel production lifecycle have resulted in increasingly cleaner liquid biofuels. These innovations will only continue to drive down the CI of conventional and advanced biofuels.

Considerations for Linkage

POET understands that Ecology will be considering the potential reduction in costs of compliance on covered entities and consumers when determining whether to enter into a linkage agreement.[9] POET further understands the CCA requires that linkage, for example, "[n]ot adversely impact Washington's ability to achieve [its] emission reduction limits," [10] and "[p]rovide consistent requirements for covered entities whose operations span jurisdictional boundaries."[11] We believe that ensuring bioethanol continues to be exempted under the CCA will help to achieve all of these requirements for linkage. Accordingly, when considering whether and how to link with California and Québec, we encourage Ecology to keep the potential impacts on bioethanol use front of mind and endeavor to provide it the same opportunity to drive down GHG emissions in Washington as it is currently provided through exemptions from carbon markets in California and Québec.

* * *

POET strongly supports Washington's efforts to reduce GHG emissions. We appreciate Ecology's consideration of these comments and look forward to continuing to engage in a

[9] Ecology, *Share your comments on Cap-and-Invest Program Linkage* (Mar. 2023), https://apps.ecology.wa.gov/publications/documents/2302027.pdf; see also RCW 70A.65.210(1)(b); RCW 70A.65.060(3).
[10] RCW 70A.65.210(3)(d).
[11] RCW 70A.65.210(1)(f).

productive dialogue with the Agency on the CCA Program implementation and the role biofuels can play in helping Washington achieve its GHG reduction goals. If you have any questions, please contact me at Janie.Kilgore@POET.COM or (202) 756-5603.

Sincerely,

Janie Kilgore
Associate Regulatory Counsel
POET, LLC

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Powerex Corp.
1300 - 666 Burrard Street
Vancouver, BC, Canada
V6C 2X8

P 604 891 5000
TF 1 800 220 4907

15 May 2023

Powerex Corp.'s comments to Washington state's Department of Ecology on linking Washington's Cap-and-Invest program with other markets

Powerex Corp. ("**Powerex**") submits the following comments in response to the Department of Ecology's ("**Ecology**") request for input on connecting Washington's carbon market with other markets, specifically the California and Québec markets.

As an importer of electricity into Washington state, Powerex participates in the Washington carbon market. Powerex also imports electricity into California and, accordingly, participates in California's carbon market (which linked with Québec's in 2014).

Powerex generally supports linking the Washington, California, and Québec carbon markets and believes doing so has the potential to result in shared benefits and efficiencies across electricity markets. However, linking markets is not without its challenges.

Where there are issues or flaws in one market or program, absent mitigating measures, linkage would serve to extend those risks across the broader footprint of the linked markets. For example, where leakage or double counting risks arise because of the program rules and market design of a jurisdiction, those same risks would persist in all linked jurisdictions. Powerex encourages Ecology to identify where there are leakage and double counting risks in Washington's market, as well as the California and Quebec markets.

With respect to California, Powerex has previously discussed the risk of emissions leakage and double counting in the Western Energy Imbalance Market ("**EIM**") caused by the California Independent System Operator's ("**CAISO**") specific least cost dispatch algorithm, also referred to as the "deeming" algorithm. Many of the flaws associated with this algorithm have been extended into CAISO's design for its Extended Day-Ahead Market ("**EDAM**"). For both the EIM and EDAM, the algorithm enables the dispatch of high-emitting generation (such as coal-fired generation) from *outside* of California to serve load inside California while "deeming" it to be from lower-emitting generation (such as hydro generation) for the purpose of California's GHG emissions program. For Washington state, the risk is the integrity of its program is undermined as higher emitting resources are favoured by the deeming algorithm's failure to properly attribute the emissions of the generation that is dispatched to serve Washington load. Powerex has done extensive modelling on the issue and makes several recommendations that it hopes are useful as Ecology seeks to better understand it. [1]

In Washington state, on the other hand, the potential for emissions leakage is a result of gaps and ambiguity in the electricity importer rules.[2] In both cases, the risks can likely be mitigated through program amendments or the linkage agreement, but both the risks and any potential mitigation

[1] Powerex, "The Western EIM's Approach to Applying California's Cap and Trade Program to Imports is Undermining the Program's Core Objectives" (July, 2022) (Full Paper) (Executive Summary)
[2] Powerex appreciates Ecology's responsiveness to the industry whitepaper on this topic and acknowledges Ecology's willingness and effort to address these issues through guidance.

measures are highly complex and will require significant time and stakeholder engagement to navigate.

Powerex reiterates its support for exploring linkage of Washington's carbon market with those of California and Québec. Should Ecology elect to pursue linkage, Powerex respectfully encourages Washington to initiate a discussion of leakage and double counting risks early in the process to afford time to evaluate how those risks may be appropriately mitigated.

Powerex looks forward to continuing to participate in Ecology's linkage decision making process and to continuing to support Washington's Cap-and-Invest program.

Frank Durnford
Executive Director, Market Policy

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May 15, 2023

Sent via E-mail

Attention: Stephanie Potts
Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600

RE: Climate Commitment Act Program Linkage

On January 31, 2023, the Department of Ecology (Ecology) announced that it was seeking public input on the question of linking Washington's cap-and-invest program under the Climate Commitment Act (CCA) to other carbon markets, namely those of California and Quebec. The following comments are submitted jointly by Avista, Northwest Requirements Utilities, PacifiCorp, the Public Generating Pool, and Puget Sound Energy, referred to throughout these comments as the "Joint Utilities."

The Joint Utilities support the pursuit and execution of full program linkage with California and Quebec no later than January 1, 2026, for the following reasons: (1) Linkage is expected to allow Washington to meet its state greenhouse gas (GHG) emissions commitments at a lower cost to covered entities and their customers; and (2) linkage with California will create one shared, rather than two divergent, GHG price signals in both existing and developing Western energy markets. However, the Joint Utilities understand that linkage issues around the electric sector are likely to be complex and challenging, which is why we would also like to reiterate our endorsement of the March 17th letter to Ecology requesting a dedicated electric sector stakeholder process and recommending the engagement of a technical expert on Western wholesale energy markets and GHG pricing policies. Before linkage with other programs can be operationalized, outstanding questions and uncertainties with respect to the implementation of Washington's program for electric utilities must be resolved, including but not limited to uncertainties around the treatment of organized electricity markets. A dedicated electric sector stakeholder process around linkage could serve as a forum for resolving these uncertainties with the current program in a timely manner.

Linkage is expected to allow WA to meet its state emissions commitments at a lower cost to covered entities and their customers.

The results of the first cap-and-invest auction in Washington on February 28th provide an important data point in Ecology's evaluation of program linkage. The settlement price for that auction was $48.50, while options trades have cleared even higher. In contrast, the settlement price for California-Quebec's most recent auction of current-year allowances was $27.85. According to the 2022 economic and market modeling and analysis conducted by Vivid Economics for Ecology, because the size of the California-Quebec market is about five times larger than Washington's, allowance prices in a linked system are expected to align with the lower of the two price signals. Linkage is thus expected to result in material cost benefits for Washington covered entities and their customers. At a time when more than 250,000 low-income households in Washington are energy burdened, this is an important policy outcome for Ecology to consider.

At the same time, the structure of Washington's cap-and-invest program is intended to allow for program linkage while still achieving the state's emission reduction limits through the adoption of annual allowance budgets. These annual allowance budgets may be adjusted by Ecology if necessary for covered entities to achieve their proportionate share of the state emission reduction limits. Linkage would also facilitate the CCA's goal of avoiding emissions leakage by instituting a unified carbon price among the West Coast states with cap-and-trade markets.

Linkage with California will create one shared, rather than two divergent, GHG price signals in both existing and developing Western energy markets.

Just as linkage is anticipated to reduce the cost of compliance for Washington covered entities, it is also expected to eliminate the inefficiencies and associated costs resulting from having two divergent GHG price signals in Western energy markets. As of early 2023, five Washington electric utilities as well as the Bonneville Power Administration participate in the Western Energy Imbalance Market (WEIM). One multijurisdictional Washington electric utility has already committed to participating in the California Independent System Operator's nascent Extended Day-Ahead Market (EDAM), and several Washington electric utilities are funding participants in the first phase of the Southwest Power Pool's Markets+ effort. In the absence of linkage, there are scenarios under which Washington participants in these existing and developing markets would face duplicative GHG compliance costs from both Washington and California for the same unit of energy.

Conclusion.

While the road to program linkage is sure to be multifaceted and complex, Ecology's evaluation of its outcomes for and impacts on the electric sector would be well-served by a dedicated stakeholder process guided and facilitated by a consultant or consultants with specific experience in Western wholesale energy markets and GHG pricing policies.

Thank you for the opportunity to provide input on connecting Washington to other carbon markets. The Joint Utilities look forward to continued dialogue with Ecology as implementation of the CCA progresses.

Sincerely,

/s/ Bruce Howard
Bruce Howard
Senior Director of Environmental Affairs
Avista

/s/ Tashiana Wangler
Tashiana Wangler
Rates and Policies Director
Northwest Requirements Utilities

/s/ Michael Wilding
Michael Wilding
Vice President of Energy Supply Management
PacifiCorp

/s/ Mary Wiencke
Mary Wiencke
Executive Director
Public Generating Pool

/s/ Lorna Luebbe
Lorna Luebbe
Sr. Vice President, Chief Sustainability Officer, & General Counsel
Puget Sound Energy

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Joint Comments of Puget Sound Energy, Avista Corporation, Cascade Natural Gas Corporation, and NW Natural Supporting Climate Commitment Act Linkage

May 15, 2023

ATTN: Luke Martland
Washington State Department of Ecology
Air Quality Program
P.O. Box 47600
Olympia, WA 98504-7600

Puget Sound Energy, Inc., Avista Corporation, Cascade Natural Gas Corporation, and NW Natural (collectively, "Joint Utilities") support linking Washington's cap-and-invest program under the Climate Commitment Act ("CCA") with the California-Quebec market before the second compliance period commences in 2026, given the many benefits for Washington that would result from linkage.

Under the CCA, the Department of Ecology "shall seek to enter into linkage agreements in order to (a) [a]llow for the mutual use and recognition of compliance instruments issued by Washington and other linked jurisdictions; (b) [b]roaden the greenhouse gas emission reduction opportunities to reduce the costs of compliance on covered entities and consumers; (c) [e]nable allowance auctions to be held jointly and provide for the use of a unified tracking system for compliance instruments; (d) [e]nhance market security; (e) [r]educe program administration costs; and (f) [p]rovide consistent requirements for covered entities whose operations span jurisdictional boundaries." RCW 70A.65.210(1).

Linkage with the California-Quebec market would fulfill these requirements for the following reasons: (1) linking would best effectuate the requirements of the CCA; (2) linkage would create greater market efficiencies; (3) Washington's program is already well-positioned to link to the California-Quebec market; (4) linkage would benefit communities with environmental justice concerns by ensuring efficient emissions reductions occur while generating continued support for and engagement with these communities; and (5) linkage would improve the ability of Washington's program to achieve its greenhouse gas reduction goals.

1. The CCA mandates Ecology seek linkage with other programs.

The CCA mandates that Ecology seek to link its cap-and-invest program with other jurisdictions: "the department shall seek to enter into linkage agreements with other jurisdictions with external greenhouse gas emissions trading programs." RCW 70A.65.210(1). In fact, Ecology was directed to design the allowance auctions "so as to allow, to the maximum extent practicable, linking with external greenhouse gas emissions trading programs." RCW 70A.65.100(11).

Seeking to link with the California-Quebec market is consistent with the CCA's language and would fulfill a core component of the Legislature's intent in passing the CCA.

2. Linkage would create greater market efficiencies and lower costs to consumers.

The Joint Utilities urge Ecology to link with California-Quebec as soon as possible, because linkage is a reliable mechanism to moderate compliance costs without reducing the environmental stringency of the program. Absent linkage, the Joint Utilities anticipate that excessively high compliance costs could harm public support for the program, as these costs impact Washington's economy and increase the prices consumers pay for essential goods such as fuel and energy services. Lowering costs for participants through linkage lowers costs for consumers and helps ensure the sustainability of the cap-and-invest program, thereby benefitting all of Washington.

Without linkage, the Joint Utilities are concerned that compliance costs will increase sharply by the time the next compliance period commences in 2026. In both the current compliance period and the next one, the total program allowance budget dramatically decreases by seven percent *annually*. This will likely drive the cost of allowances up much higher than they were in the first auction, which was already high at a settlement price of $48.50 per allowance.[1] In fact, it is reasonable to conclude that the Allowance Price Containment Reserve ("APCR") will likely be triggered in the near term, as the APCR Tier I price is $51.90 for 2023—just a few dollars above the previous settlement price. Ecology's emergency rulemaking to clarify APCR-related portions of the rule, as well as the tentatively scheduled APCR auction on August 9, 2023, reflects the probability that the APCR will trigger soon. The fact that the cap-and-invest program will likely trigger the cost containment mechanisms during the first year of the program is a troubling sign.

Linkage would benefit Washington families and businesses by moderating program costs in the following ways:

First, linkage would moderate compliance costs by lowering the price-per-allowance. In September 2022, Vivid Economics, on behalf of Ecology, conducted independent market modeling (the "Vivid Model") on Washington's cap-and-invest program. According to the Vivid Model, the post-linkage with California-Quebec price-per-allowance at auction would converge toward the prices of the California-Quebec market due to the significantly larger size of that market.[2] Whereas the settlement price for Washington's Auction #1 was $48.50 per allowance, the California-Quebec Joint Auction #34, which was held the same month as Washington's first auction, had a settlement price of $27.85 per allowance.[3] Convergence of Washington allowance prices with allowance prices in the California-Quebec market will produce significant savings to Washington consumers and reduce concerns regarding the costs of the cap-and-invest program.

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[1] WASHINGTON CAP-AND-INVEST PROGRAM AUCTION #1 FEBRUARY 2023 SUMMARY REPORT, Mar. 7, 2023 [hereinafter Washington Auction #1 Report].

[2] VIVID ECONOMICS: SUMMARY OF MARKET MODELING AND ANALYSIS OF THE PROPOSED CAP AND INVEST PROGRAM, Sept. 2022 at 10 [hereinafter Vivid Model].

[3] CALIFORNIA AIR RESOURCES BOARD, SUMMARY OF CALIFORNIA-QUEBEC JOINT AUCTION SETTLEMENT PRICES AND RESULTS, Feb. 2023 [hereinafter CARB Auction Report].

Second, linkage would dampen price volatility by creating a more stable pool of allowances for Washington participants, due to the higher volume of allowances traded in the California-Quebec market.[4] This conclusion is supported by a joint report from the International Emissions Trading Association ("IETA") and the Environmental Defense Fund ("EDF"). In their report, *A Roadmap for Linkage*, IETA and EDF found that "[f]undamentally, formal linkage leads to a single allowance price across all linked jurisdictions, thereby reducing total costs to final consumers without sacrificing environmental benefits. In turn, these cost reductions make it easier for regulators to achieve ambitious climate targets and lower overall cap levels."[5] In other words, the larger the number and the more diverse the entities that are trading, the more improved the liquidity and economic efficiency of the market.[6]

Third, linkage creates a standardized financial carbon market that supports capital investment in decarbonization technologies while also reducing emissions leakage concerns between linked jurisdictions. A single allowance price across multiple jurisdictions will decrease incentives to relocate business activities to a different state in an effort to reduce the costs of compliance with environmental regulations.

Finally, linkage would moderate compliance costs by eliminating inefficiencies that depress wholesale electric sales from Washington generating facilities to California electricity markets. Because the Washington program is not linked to California, Washington imposes a carbon price on power generated using carbon-based fuel within the state, and California imposes a carbon price for the same power sold into California. This double payment for the same carbon reduction sharply increases the cost of Washington power. Linkage would resolve this issue entirely, alleviating regulatory redundancy and eliminating the "double payment" for compliance for wholesale sales of electricity to California.

For all of these reasons, the Joint Utilities believe achieving linkage by 2026 or earlier is crucial for the long-term success of the program.

3. Washington's program is already well-positioned to link with other markets.

By design, and consistent with legislative intent, the CCA intentionally positions Washington's program to link with other programs, and specifically with the California-Quebec market. For example, the CCA states that Ecology "*shall* consider opportunities to implement the program in a manner that allows linking", and the CCA expressly allows Ecology to conduct joint auctions with linked markets. RCW 70A.65.060(3); 70A.65.100(11). Intentionally, Washington's program uses the same auction platform, administered by the Western Climate Initiative ("WCI"), to conduct its allowance auctions as the California-Quebec programs. Additionally, as Ecology has noted, the CCA regulations were written "to mirror [the California-Quebec program's] floor- and ceiling-price calculations."[7]

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[4] Ecology sold 6,185,222 allowances at Auction #1. California-Quebec sold 56,395,720 allowances at Joint Auction #34. *See* Washington Auction #1 Report; CARB Auction Report.

[5] ENVIRONMENTAL DEFENSE FUND & INTERNATIONAL EMISSIONS TRADING ASSOCIATION, A ROADMAP FOR LINKAGE: ALIGNING CALIFORNIA AND WASHINGTON'S CARBON PRICES, July 2022, at 4.

[6] *Id.*

[7] Department of Ecology, *Cap-and-invest linkage*, https://ecology.wa.gov/Air-Climate/Climate-Commitment-Act/Cap-and-invest/Linkage, (last visited Apr. 19, 2023).

Further, promoting linkage is built into the language of the CCA and the Program Rule, which would aid a smooth transition from a non-linked program to one linked with California-Quebec. For example, the definition of "compliance instrument" already accounts for allowances or offset credits issued to an entity by a non-Washington greenhouse gas emissions trading program to which the state has linked. RCW 70A.65.010(18). Additionally, in the Program Rule, the corporate association disclosure rules likewise account for relationships between entities registered with programs linked with Washington. WAC 173-446-110(1), (2). This pattern holds true for rules on trading compliance allowances, transfers among registered entities, and offset project crediting. *See* WAC 173-446-400(7), 173-446-410(1), 173-446-510(1)(e). Put simply, the CCA and the Program Rule are *already* written to help enable linkage.

Given the similarities in the functionality between Washington's program and the California-Quebec programs, linkage with those jurisdictions could be successfully, and smoothly, pursued.

4. Linkage benefits communities with environmental and energy justice concerns.

Linkage would benefit communities with environmental and energy justice concerns by enabling emissions reductions to be achieved while allowing programs in all three jurisdictions to dedicate significant resources to such communities. The CCA requires Ecology to conduct environmental justice assessments to ensure that funds and programs created under the CCA provide benefits to vulnerable populations and overburdened communities. RCW 70A.65.005(7). Like Washington, the California and Quebec cap-and-invest programs have provisions that distribute benefits, including auction revenues, to vulnerable populations and overburdened communities.

In Washington, the CCA mandates that "a minimum of not less than 35 percent and a goal of 40 percent of total investments" from auction proceeds "provide direct and meaningful benefits to vulnerable populations within the boundaries of overburdened communities." RCW 70A.65.220(1)(a). Furthermore, at least 10 percent of total investments must be used for programs, activities, or projects formally supported by a resolution of an Indian tribe, with priority given to projects directly administered or proposed by an Indian tribe. RCW 70A.65.230(1)(b). Although it is the Legislature's duty to appropriate this funding, CCA auction proceeds will be invested in three primary accounts—one of which focuses on identifying and reducing criteria pollutants and health disparities in overburdened communities highly impacted by air pollution—and four sub-accounts, all of which will likely provide benefits to communities with environmental justice concerns, consistent with statutory direction.[8]

Similarly, revenue generated by California's cap-and-trade program is placed into the state's Greenhouse Gas Reduction Fund, and 35 percent of this revenue must be directed to environmentally disadvantaged and low-income communities. Specifically, Assembly Bill 1550 directs 25 percent of funds to disadvantaged communities, dedicates 5 percent of funds toward projects within low-income communities or benefiting low-income households, and dedicates 5

[8] Washington Department of Ecology, *Cap-and-invest auction proceeds*, https://ecology.wa.gov/Air-Climate/Climate-Commitment-Act/Auction-proceeds, (last visited Apr. 28, 2023).

percent of funds toward projects within and benefiting low-income households or communities within one-half mile of a disadvantaged community.

Funding from California's program is managed by California Climate Investments ("CCI"). In 2022 alone, CCI implemented nearly 20,000 new projects and added 10,399 new affordable housing units.[9] While CCI is required to dedicate 35% of its funding to the state's disadvantaged and low-income communities and households, CCI actually dedicated more than double that number: 73 percent of CCI's investments went towards these priority populations, which translates to over $6.7 billion.[10] This funding has been used to provide these communities with "cleaner air, increased mobility options, expanded access to clean energy cost savings, and new employment opportunities."[11] Specific examples of this funding in action include CARB's Clean Off-Road Equipment Voucher Incentive Project,[12] the California Strategic Growth Council's Sustainable Agricultural Lands Conservation Program,[13] and the Affordable Housing and Sustainable Communities Program.[14]

Under Quebec's program, all auction proceeds are placed into the Electrification and Climate Change Fund. The Government of Quebec uses this fund to implement actions that help improve the health, safety, and quality of life of citizens and communities. This fund has been implemented to, among other things: (1) reduce fossil fuel consumption and improve the energy efficiency of buildings, industrial processes, and vehicle fleets; (2) provide support for the development of mass and active transit; (3) accelerate the electrification of transport and the creation of new companies; (4) broaden the use of renewable energy sources in all sectors; and (5) encourage research and development in the field of clean technology.[15]

Quebec has likewise put a focus on communities impacted more harshly by climate change. As part of its five "main axes" for its implementation plan, Quebec will establish a program for Indigenous communities "to support the implementation of climate transition projects at the community level and strengthen local capacities."[16]

However, auction proceeds are not the only way that cap-and-invest programs have benefitted communities with environmental justice concerns. Multiple studies have found that California's program has significantly benefitted such communities by improving their air quality, with lower cost allowances. For example, a 2020 study from the University of California, Santa

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[9] CALIFORNIA CLIMATE INVESTMENTS, 2023 ANNUAL REPORT: CAP-AND-TRADE AUCTION PROCEEDS at 6.
[10] *Id.* at 23.
[11] *Id.*
[12] This program funds zero-emission construction and material handling equipment for small business in disadvantaged communities. *Id.* at 11.
[13] This program provided up to $250,000 to organizations "to develop the financial and organizational capacity necessary to create competitive agricultural conservation project proposals." *Id.*
[14] This program implemented over $200 million in 2022 through affordable housing loans and other grants for housing- and transportation-related infrastructure. *Id.* at 12.
[15] Government of Quebec, *2013-2020 Climate Change Action Plan*, last visited Apr. 19, 2023, https://www.environnement.gouv.qc.ca/changementsclimatiques/plan-action-en.asp.
[16] Government of Quebec, *Implementation*, last visited Apr. 19, 2023, https://www.quebec.ca/en/government/policies-orientations/plan-green-economy/implementation. The five axes are: (1) mitigate climate change; (2) build the economy of tomorrow; (3) adapt to climate change; (4) create a predictable environment that is conducive to the climate transition; and (5) accelerate the development of knowledge. *Id.*

Barbara found that from 2008 through 2017, air quality in communities with large cap-and-invest-covered facilities improved more than air quality in areas without such facilities.[17] Likewise, a 2022 report by the Office of Environmental Health and Hazard Assessment found that through 2017, the greatest beneficiaries of reduced emissions from covered facilities were disadvantaged communities and communities of color in California.[18] These studies evidence that Washington's CCA program has the opportunity to produce these same or better air quality benefits, while moderating energy cost increases through linkage.

Importantly, the CCA cap-and-invest program is just one of a suite of Washington laws designed to mitigate burdens on overburdened communities. For example, under a separate provision of the CCA, Ecology must "[d]eploy an air monitoring network in overburdened communities," review the levels of criteria pollutants in these communities every two years, and adopt "stricter air quality standards, emission standards, or emissions limitations" to decrease such pollutants. RCW 70A.65.020. Additionally, Washington's Clean Energy Transformation Act requires electric utilities to "ensure that all customers are benefiting from the transition to clean energy", including "[t]hrough the equitable distribution of energy and nonenergy benefits and reduction of burdens to vulnerable populations and highly impacted communities." RCW 19.405.040(8). Furthermore, Washington's HEAL Act requires covered agencies to (1) formulate environmental justice implementation plans within their strategic plans; and (2) conduct an environmental justice assessment to inform the agency's consideration of overburdened communities and vulnerable populations for significant agency actions. RCW 70A.02.040; RCW 70A.02.060. It is also Washington's policy to actively engage community member representatives to advise agencies on environmental justice via the Environmental Justice Council. RCW 70A.02.110. These laws compliment the expansive scope of the CCA cap-and-invest program by directing targeted environmental justice action.

Given that Washington, California, and Quebec are committed to ensuring their cap-and-invest programs aid their respective communities, linking with the California-Quebec market would allow for the continued support of and engagement with communities concerned with environmental and energy justice.

5. Linkage would strengthen Washington's ability to reduce emissions.

Washington is statutorily required to limit emissions of greenhouse gases to achieve reduction goals that grow more ambitious each decade. *See* RCW 70A.45.020. As demonstrated above, linkage would make emissions reductions more feasible for regulated entities. By increasing the pool of allowances and the number and diversity of auction participants, the price-per-allowance will shrink compared to Washington's first auction and may remain relatively steadier over time due to the maturity of the market. This predictability and lower price point would allow regulated entities to better plan, prepare, and participate in these joint auctions. With

[17] Danae Hernandez-Cortes and Kyle C. Meng, *Do Environmental Markets Cause Environmental Injustice? Evidence from California's Carbon Market*, National Bureau of Economic Research, (May 2020, revised Nov. 2022), https://www.nber.org/system/files/working_papers/w27205/w27205.pdf.

[18] California Office of Environmental Heath and Hazard Assessment, *Impacts of Greenhouse Gas Emission Limits Within Disadvantaged Communities: Progress Toward Reducing Inequities*, (Feb. 2022), https://oehha.ca.gov/media/downloads/environmental-justice/impactsofghgpoliciesreport020322.pdf.

a more stable market, entities could work on reducing their individual emissions in a steady and reliable manner—which would promote stability in costs borne by Washington customers.

Beyond emissions reductions by individual entities, the CCA directs Ecology to periodically review program performance to ensure Washington's emissions are being reduced in line with state limits, meaning that Ecology can reduce Washington's annual allowance budgets if needed. RCW 70A.65.070. This is a guaranteed backstop and would help ensure Washington remains on track to meet its emissions reduction goals.

The European Union Emissions Trading System ("ETS") serves as a prime example for the benefits of increasing the size of Washington's carbon market through linkage. The ETS covers over 9,000 entities, including power plants, manufacturing installations, and aircraft operators. It now covers 27 European Union Member States. Since its launch in 2005, the ETS has helped reduce emissions from its covered sectors by almost 35% and has generated the equivalent of over $110 billion in revenue.[19]

On its own, Washington's program can and will help reduce emissions. Linked with the California-Quebec market, Washington's program could more efficiently drive greater emissions reductions and community investments across all three jurisdictions, while sustaining the ambition of the program.

***

The Joint Utilities appreciate the opportunity to engage with Ecology and share their support for linking Washington's cap-and-invest program to the California-Quebec market before the second compliance period commences in 2026. If you would like to further discuss this letter or have any questions, please reach out to Lorna Luebbe (lorna.luebbe@pse.com), Bruce Howard (bruce.howard@avistacorp.com), Abbie Krebsbach (abbie.krebsbach@mdu.com), and Mary Moerlins (mary.moerlins@nwnatural.com).

[19] *See generally*, REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL ON THE FUNCTIONING OF THE EUROPEAN CARBON MARKET IN 2021 PURSUANT TO ARTICLES 10(5) AND 21(2) OF DIRECTIVE 2003/87/EC, Dec. 14, 2022.

Sincerely,

/s/ Lorna Luebbe
Lorna Luebbe
Vice President of Sustainability,
Deputy General Counsel
Puget Sound Energy

/s/ Mary Moerlins
Mary Moerlins
Director of Environmental Policy &
Corporate Responsibility
NW Natural

/s/ Bruce Howard
Bruce Howard
Senior Director of Environmental Affairs
Avista

/s/ Abbie Krebsbach
Abbie Krebsbach
Environmental Director
Cascade Natural Gas Corporation

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Seattle City Light

700 5th Ave. | P.O. Box 34023 | Seattle WA 98124-4023
TEL (206) 684-3000 TTY/TDD (206) 684-3225 FAX (206) 625-3709
seattle.gov/city-light
twitter.com/SEACityLight facebook.com/SeattleCityLight

March 1, 2023

BY E-MAIL TO CCALINKAGE@ECY.WA.GOV

Dear Ms. Stephanie Potts,

Seattle City Light is a department of the City of Seattle and provides retail electric service to nearly 800,000 people in Seattle and the six adjacent cities. We operate 6 hydroelectric plants, transmission, and distribution facilities, and are active in Western energy markets. Seattle City Light supported the Cap and Invest bill in the 2021 Legislative Session and still support the efforts to develop a successful program.

Seattle City Light is a member of the Public Generating Pool and we support the comments they submitted. We offer these as additional.

Regarding linkage, Seattle City Light encourages Ecology to work as quickly as possible to link the programs. Just as trading electrical energy up and down the West Coast adds to economic efficiency, so to will linking the programs allowing allowance trading across a broader region similar to how electrical energy is traded.

Washington's law requires Ecology to consider several factors regarding linkage. Seattle City Light encourages the rapid consideration of those factors. Furthermore, we encourage Ecology to design and administer its program as similarly to California's as possible. California has successfully managed its program since 2013 and linked with Québec in 2014. Supporting this track record of success in Washington will allow Seattle City Light and other energy market participants to be able to use established practices in both states. Ecology's study of the program and effect of linkage considers many of the factors Ecology is required to consider. Other factors such as pre-2020 allowances are easily confirmed with CARB, which publishes annual reports as well as a cumulative "Allowance Supply Report" that discusses unused allowances. Both California (The Proceeds to California column includes the total amount of auction proceeds to date that have been deposited into the California Greenhouse Gas Reduction Fund (GGRF) pursuant to California Government Code section 16428.8.) and Québec (Since December 3, 2013, the Ministère de l'Environnement et de la Lutte contre les changements climatiques (MELCC) has held quarterly greenhouse gas emission units auctions. All proceeds from the sales are paid to the Electrification and Climate Change Fund [1] (ECCF)) both have provisions to ensure the distribution of benefits from the program to vulnerable populations and overburdened communities.

Lastly, a decision to link is reversible should the actual performance be contrary to Washington state's interests. This ability to administer the program on a stand-alone basis is a useful option to resolve

unforeseen future difficulties. The province of Ontario withdrew from the program. Washington having this option should allow for considered and quick review of the appliable factors for linkage.

In conclusion, eventual linkage with California and other jurisdictions with GHG emission reduction requirements was a part of the 2021 bill that Seattle City Light supported and one of the reasons we supported the bill. We encourage Ecology to move expeditiously to make linkage occur and sooner than 2025 if possible. The linkage between California and Québec occurred much more quickly and shows what timing is possible.

Sincerely,

Josh Walter
Manager, Power Contracts and Regional Affairs
Seattle City Light

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BHCS BEACON HILL COUNCIL SEATTLE

May 15, 2023 E-Distribution

Stephanie Potts CCALinkage@ecy.wa.gov
WA Dept. of Ecology – Air Quality Program
PO BOX 47600
Olympia WA 98504-7600

Re: Defer Summer 2023 Pursue Cap/Trade Linkage Decision & Conduct EJ Analysis

Dear Ms. Potts,

Thank you for gathering feedback to see whether it would benefit Washington state to link its cap-and-invest-program with similar programs in California and Quebec that operate in a common market. https://ecology.wa.gov/Blog/Posts/May-2023/Meaningful-Momentum-CCA-Updates-for-May-2023?utm_medium=email&utm_source=govdelivery

Beacon Hill neighborhood in Seattle is an overburdened community with GHG/air pollution coming from roads, aircraft and oil/gas heated homes. We have 40,000+residents with 70% + BiPOC and 40%+ immigrants and refugees. As communities of color, we find the linkage topic highly complex and find it difficult to predict its impacts. We do not have to capacity nor resources to hire consultants to give feedback on its predicted racial, environmental, health, and economic impacts on our BIPOC, vulnerable and overburdened communities.

To begin with, we are concerned that the Cap-and-Trade program:

1) already allows companies to pay to pollute way beyond the 8-year period when permanent climate temperature change can be averted, and
2) does not have enough accountability tools to get companies to convert to clean energy in the 8-year period.

You know that our communities in Washington are already experiencing increasing climate events --extreme heat, forest fires, smoke from forest fires, and flooding. The COVID pandemic demonstrated that communities of color, immigrants and refugees are faster and harder adversely impacted.

Our feedback is for the Dept. of Ecology to:

1) defer making the linkage decision this summer until item 2 is accomplished and the results are shared with our communities for feedback,
2) conduct a racial cumulative impact/environmental justice analysis consistent with the HEAL Act to do no harm nor create new inequities, and
3) develop more tools to prompt participating and all pollution sources to convert to clean energy within the 8 years to avert permanent climate temperature change.

Cap and trade linkage is too big and too important a decision to be rushed. It has short- and long-term impact on our lives and health and is difficult to undo. We look forward to positive response to our feedback. Together, we can.

Sincerely,

Maria Batayola

Beacon Hill Council Chair Maria Batayola

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Shell Energy North America
4445 Eastgate Mall, Suite 100
San Diego, California 92121

May 15, 2023

Washington Department of Ecology
c/o Stephanie Potts
P.O. Box 47600
Olympia, WA 98504-7600

Via Email to CCALinkage@ecy.wa.gov

RE: Linkage Input

To Ms. Stephanie Potts and the Department of Ecology:

Shell Energy North America (US), L.P. ("Shell Energy") markets and trades natural gas, power and environmental products and provides risk management support to wholesale and retail customers throughout North America. Shell Energy welcomes the opportunity to comment on the matter of linking Washington's Cap-and-Invest program (CCA Program) with other markets.

Shell Energy supports the directive established by the Climate Commitment Act instructing Ecology to explore connecting the CCA Program with other regional programs, namely the Western Climate Initiative (WCI) Cap-and-Trade Program (WCI Program). The WCI Program is a proven model for other jurisdictions like Washington endeavoring to reduce emissions through a robust, economy-wide carbon trading market. Linkage with the WCI Program carries two key benefits: first, linkage would lower overall costs both to compliance entities and end-users due to enhanced market liquidity; and second, linkage eliminates the potential for emissions leakage because of consistent carbon pricing across jurisdictions.

Shell Energy applauds Ecology for recognizing that adjustments to the CCA Program will be needed to facilitate linkage. Below are a few key provisions and solutions for amending them that would better support linkage agreements between the CCA and WCI Programs.

1. **Auction purchase limits should be increased to 25% (WAC 173-446-330)**. Currently, the 10% purchase limit diverges from the WCI standard of 25% and arbitrarily constrains compliance entities from forward planning.

2. **Offset Changes:**
    - **The Offset Usage Limit (WAC 173-446-600(7)(a)(i)) should be increased.** Shell Energy recommends that Ecology raise the percentage limitation on offset usage from 5% to 8%, consistent with California's initial limits, and extend the 8% limitation across compliance periods. In addition to facilitating linkage, this adjustment would help support affordability of the program to end-users and drive certainty around investments in offset projects eligible under both program protocols.
    - **Direct Environmental Benefits (DEBs) requirements should be relaxed to align with California (WAC 173-446-500; WAC 173-446-595).** The CCA Program requires Ecology offset credits and all offset projects located outside the state of Washington to provide Direct

Environmental Benefits to the state; however, statute only requires a minimum of 50% of an entity's compliance obligation to be shown to have DEBs (see RCW 70A.65.170(3)(a)). Shell Energy recommends that Ecology relax this requirement to align with California's approach as it would enable fungibility of offsets across linked jurisdictions and support flexibility in managing compliance.

- **The allowance cancellation provision (WAC 173-446-250) should be removed.** The CCA Program contains a process for removing and retiring allowances to account for the use of offset credits on an annual basis. Offsets continue to be an important cost containment tool; removal of this allowance cancellation provision would help align the CCA and WCI Programs, reduce uncertainty, and manage price volatility.

3. **Allowance Price Containment Reserve (APCR) provisions should share the WCI trigger and would benefit from further transparency.** The CCA Program should authorize APCR auctions when the auction clearing price reaches 60% of the Tier 1 APCR price, as is done in California. Under the CCA Program, the trigger is currently set at 100%, an extraordinarily high trigger that does little to help alleviate cost pressures on participants and end-users. Additionally, Shell Energy recommends that Ecology specify the amount of allowances that will be designated for the APCR beyond 2030, including whether volumes will be "frontloaded" and the timeline by which those amounts will be made available. This added transparency supports market efficiency, reduces uncertainty, mitigates price volatility and helps obligated entities manage costs.

4. **Ecology should add a Limited Exemption to Holding Limits (WAC 173-446-150).** Still noticeably absent from the CCA Program is the provision of a Limited Exemption to the Holding Limit for covered entities, as is provided under California's Cap-and-Trade program (17 C.C.R. 95920(d)(2)). A Limited Exemption provides an important "emergency" mechanism for compliance entities to manage their accounts, particularly in years of unusual economic activity such as 2020.

Shell Energy appreciates the opportunity to share these comments with Ecology and welcomes further engagement of stakeholders in the development of these recommended adjustments through the rulemaking process.

Respectfully submitted,

Christa Lim
Director - Regulatory Affairs (West)
Shell Energy North America (US), L.P.

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May 15, 2023

Luke Martland, Manager, Climate Commitment Act Implementation
Department of Ecology
300 Desmond Drive SE
Lacey, WA 98503

Dear Mr. Martland,

The Western Power Trading Forum (WPTF) appreciates the opportunity to provide input to the Washington Department of Ecology (Ecology) about the possibility of connecting the cap-and-trade program under the Climate Commitment Act (CCA) to those of the two Western Climate Initiative Jurisdictions (California and Québec). WPTF is a diverse organization of over 100 members comprising power marketers, generators, investment banks, electric utilities and energy service providers, whose common interest is the development of competitive electricity markets in the West.

The first auction under the CCA demonstrated that, as predicted by Ecology's own commission analysis, allowance prices under the CCA without program linkage will be quite high. Allowance prices could rise higher this year and may even reach the level of the Allowance Price Containment Reserve Tier. High allowance prices could undermine public and political support for the program, as the cost impacts roll down to consumers. If allowance prices reach extreme levels, program integrity would be undermined by the need to issue Price Ceiling Units. Neither of these outcomes bode well for the long-term success of the program.

Linkage of the Washington cap and trade program to those of California and Québec would yield significant economic benefits for the state and improve program sustainability. Overall CCA program costs and allowance prices would be lower relative to an unlinked program, due to the ability to reduce emissions across a wider geographic region. Linkage would also provide for a broader, deeper and more liquid carbon market. This too reduces compliance costs for all covered entities and reduce impacts on Washington consumers.

For the electricity sector, program linkage would ensure a common carbon price signal for all generators within Washington and California, and entities that import electricity into these state. A common carbon price would ensure a level playing field for similarly situated resources, and avoid electricity market distortions, and help mitigate emissions leakage. These factors are particularly important in light of the expansion of organized electricity markets within the West.

For these reasons, WPTF strongly supports linkage of the Washington program to those of the WCI jurisdiction and urge Ecology to initiate the formal process to enable linkage as soon as possible.

Respectfully,

Clare Breidenich

Clare Breidenich
Carbon and Clean Energy Committee Director
Western Power Trading Program

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Yale Carbon Containment Lab

Monday, May 15, 2023

Stephanie Potts
Department of Ecology
Cap and Invest Program
P.O. Box 47600
Olympia, WA 98504-7600

VIA EMAIL

RE: *Formal Comments on Linking Washington's Carbon Market with California and Québec's, Chapter 70A.65 RCW and Chapter 173-446 WAC*

Dear Ms. Potts:

The Yale Carbon Containment Lab (CC Lab) appreciates this opportunity to comment on whether Washington should connect its carbon market with California and Québec's. The CC Lab supports linkage, or linkage with limitations, should the Department of Ecology determine the criteria in RCW 70A.65.060(3) and RCW 70A.65.210(3) are satisfied.

The CC Lab helps tackle the climate crisis by contributing to the evolution of carbon credit markets and delivering innovative, low-cost, safe, scalable, and verifiable methods of atmospheric carbon reduction and containment. The CC Lab's efforts in Washington State include research and other foundational work to: reduce the risk of severe wildfire and prolong containment and utilization of carbon from woody biomass; capture carbon with enhanced mineral weathering; and permanently sequester carbon dioxide from industrial point sources, biomass-derived energy sources, and directly from the atmosphere into basalts underlying much of the State. As these technologies mature, we expect that they will help meet state climate goals and will be supported by funding made available through the state's cap-and-invest program.

Linking Washington's carbon market with California and Québec's should increase the security of the international compliance carbon market. Linkage is expected to increase liquidity and provide stabilized cost containment for covered entities and consumers. It should generate revenue to improve comprehensive market infrastructure and spur development of carbon as a viable asset class, including, hopefully, by motivating other jurisdictions to set climate ambitions and develop high-caliber cap-and-invest/trade programs.

However, linkage also has the potential to present negative outcomes for Washington, particularly in the short-term. California and Québec collectively have a larger market than Washington's and an excess of vintage allowances. The prices of allowances and offset credits in a linked system will likely decrease from Washington's trading prices to the prices of California and Québec's market. Though this price reduction would benefit covered entities and utility customers, less auction revenue would be available for overburdened and underserved communities and to incentivize adoption of low-carbon technologies and carbon removal

approaches deployed in-state. Similarly, entities evaluating whether to develop decarbonization projects in Washington may find a lowered price for offset credits makes those projects economically unviable until prices rise. An influx of vintage allowances could hinder the State's ability to achieve its greenhouse gas reductions limits by decreasing the need for direct reductions and offset projects. It accordingly could adversely affect the State's ability to improve air quality and mitigate the risk of severe wildfire.

Washington can hedge against these potential negative consequences by constraining the number of vintage allowances and banked offset credits available in a linked system, continuing to prioritize environmental justice and equity, and offering additional incentives for in-state projects. In addition to the linkage criteria described in the Climate Commitment Act, we recommend Washington evaluate the likelihood that California will continue to operate its cap-and-trade program beyond 2030, because linking in 2025 and de-linking in 2030 would be costly and would needlessly disrupt Washington's carbon market. Finally, we recommend that Ecology consider adopting additional carbon offset protocols beyond the categories recognized today, further linking carbon markets and building incentives for project developers to contain more carbon sooner.

The CC Lab welcomes an opportunity to share its assessments of compliance carbon markets with Ecology. Please contact me at carboncontainment.lab@yale.edu or my personal email address if you would like to schedule a virtual or in-person meeting.

Sincerely,

Dr. Anastasia O'Rourke
Managing Director, Yale Carbon Containment Lab