

International Emissions Trading Association

Comment letter from IETA and report from IETA-EDF attached.



Comments on Washington's Cap-and-Invest Program

The International Emissions Trading Association (IETA) is thankful for the opportunity to comment on Washington's cap-and-invest program. IETA is a nonprofit association of over 150 businesses that support cap-and-trade programs generally and specifically supports linkage of cap-and-trade programs. Our comments are focused on potential linkage between California and Washington's programs as well as carbon offset design in Washington's cap-and-invest program.

IETA and the Environmental Defense Fund recently published a [report](#) that outlines a roadmap for linking California and Washington's carbon prices. The motivation for the report is to identify design elements that Washington can further align to facilitate eventual linkage with California. The report makes numerous recommendations, including the following:

- Strengthening enforcement with Washington's cap-and-invest program

IETA recommends that, in the event of a failure to rectify noncompliance after six months, Ecology should commit to issuing both an order and a fine to the offending regulated entity by stating this plainly in regulation. This will bolster the strength of enforcement, thereby improving the overall effectiveness and environmental impact of Washington's program. In addition, during the first compliance period, Ecology should commit to not using its discretion to lower fines or the quantity of excess allowances owed. In IETA's view, use of discretion muddies the waters for regulators and regulated entities, in addition to diminishing smooth program functioning. These alignments would bring Washington's regulations closer to those implemented in California.

- Eliminating discretionary auctions for price containment reserves

IETA recommends that Washington avoid the use of discretionary auction of allowances from the price containment reserve for regulated entities that are behind on their compliance efforts. In IETA's view, this not only introduces uncertainty but also runs the risk of incentivizing greater levels of noncompliance and overreliance on this type of measure. This alignment would bring Washington's regulations closer to those implemented in California.

Separate but related to linkage, IETA recommends improving the definition of high-quality carbon offsets in the regulations. We note that explicit definitions of "conservative" and "business-as-usual scenario" would be helpful in precisely defining high-quality carbon offsets. California provides for such definitions and therefore aligning these definitions would also facilitate linkage. In addition, IETA encourages Washington to adopt a wide number of high-quality protocols, including novel approaches that incentivize removals.

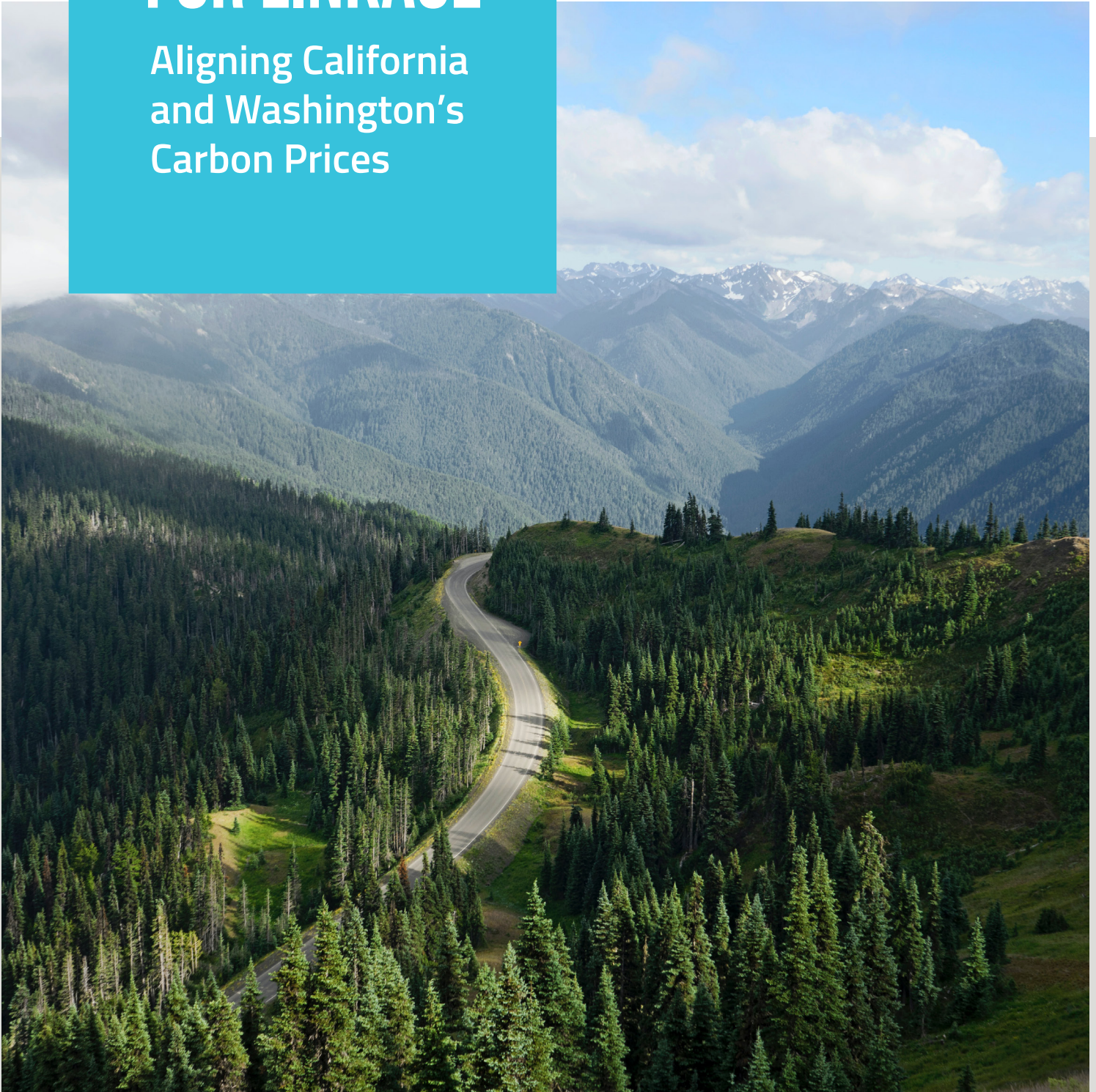
Sincerely,

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A ROADMAP FOR LINKAGE

Aligning California
and Washington's
Carbon Prices





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BACKGROUND

Carbon Pricing in California and Washington

“MORE THAN 65 CARBON PRICES REGULATE NEARLY 22 PERCENT OF GLOBAL EMISSIONS”

Carbon pricing is an effective approach for reducing greenhouse gas (GHG) emissions that fuel climate change. Carbon prices are usually implemented through a carbon trading or carbon taxation program. Regulators around the world are increasingly deploying carbon pricing to complement their existing policy approaches.¹ Currently, more than 65 carbon prices regulate nearly 22 percent of global emissions, a steep increase from previous years.² These programs collectively raised over 48 billion USD worth of revenue in 2019,³ much of which is reinvested into communities that bear a disproportionate pollution burden and the brunt of the adverse impacts caused by our changing climate. Moreover, recent studies provide evidence that these programs also substantially reduce GHG emissions, even when carbon price levels are relatively low.⁴

California and Washington are among the jurisdictions that have chosen to place a price carbon. California’s cap-and-trade program started in 2013 and is one of the largest carbon markets in the world with a cap of 200 million metric tons of GHG emissions in 2020. The program covers the electricity, transportation, and industrial sectors. The program has raised over 13 billion USD for the State,⁵ 57 percent of which has been reinvested into disadvantaged and low-income communities.⁶

The California program has taken on a gradually more prominent role in the state’s climate policy mix. In its initial iteration, regulators designed the



program to achieve roughly 10 percent of the state’s 2020 climate target.⁷ In this context, the role of the program was primarily to serve as a backstop, dynamically ramping up abatement if any of California’s numerous other climate emission reduction policies, which were slated to do the heavy lifting, failed to achieve their intended reduction targets.⁸ The initial program iteration served this role admirably, contributing to the achievement of California’s 2020 statewide climate target in 2016, four years ahead of schedule.⁹

In the 2017 Scoping Plan, regulators carved out a more vital role for the program by designing it to achieve roughly 40 percent of the state’s more stringent 2030 climate target.¹⁰ Compliance entities are now responding by ramping up demand, resulting in recent carbon prices just over 30 USD per ton. Under these new circumstances,

California’s Legislative Analyst’s Office predicts that the program could raise up to three billion USD during the 2022 fiscal year.¹¹

Washington’s nascent cap-and-invest program originates from the passage of the Climate Commitment Act (CCA) in April 2021, resulting from collaboration between local regulated businesses, environmental nonprofit organizations, tribes, and racial equity organizations. The legislation resembles California’s cap-and-trade program but also includes novel features and approaches to price management, carbon offsetting, and environmental justice. The state regulator (the Department of Ecology, hereafter referred to as “Ecology”) must expeditiously promulgate the program by January 2023. As such, Ecology is in the process of completing several rulemakings to flesh out the details of the program.

\$48.0
BILLION USD

COLLECTIVE REVENUE GENERATED FROM CARBON PRICING PROGRAMS IN 2019

FORMAL LINKAGE AND INCREMENTAL ALIGNMENT

As California's program continues its evolution to address new state carbon neutrality goals and Washington's program takes its first steps, it is critical that these jurisdictions explore ways to learn from one another and expand their collaboration. One approach is to formally link carbon pricing programs by allowing companies in each jurisdiction to buy and retire allowances from the other jurisdiction to satisfy compliance requirements.¹² This is the approach originally conceived of by the Western Climate Initiative—to which California and Washington are both members—and it is the approach California chose to take with Quebec when they formally linked their programs in 2014.

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.¹³ In turn, these cost reductions make it easier for regulators to achieve ambitious climate targets and lower overall cap levels.¹⁴

One study shows that if cost savings from a formally linked international carbon price were reinvested into enhanced ambition, then countries could double their emissions reductions by 2030.¹⁵ 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

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imperfectly correlated across jurisdictions.¹⁶ This is particularly pertinent to California and Washington, where electric loads peak at separate times.

While the value of formal linkage is quite significant, there are at least two challenges with formal linkage. First, carbon prices that are not formally linked from the beginning will inevitably be designed differently. Some of these design differences need to be addressed before a formal link occurs to ensure smooth joint functioning of the linked program. The ensuing negotiations can be thought of as a prerequisite to entering a formal linkage.¹⁷ Second, formal linkage can change incentives in subtle ways that could threaten the environmental integrity of the overall cap, such as incentivizing jurisdictions to artificially inflate their caps. These incentives can be dulled or reversed with smart policy design, with several authors noting that formal linkage can enhance overall ambition by incentivizing more aggressive caps.¹⁸ These smart policy designs are discussed in detail in subsequent sections of this report. It is important to acknowledge and account for these incentives early on to ensure the desired emission outcomes resulting from formal linkage. For these reasons, regulators may find formal linkage a slower process than typically anticipated, despite the apparent benefits. The motivation for this paper is to consider formal linkage that results in more ambitious climate targets by highlighting smart policy designs.

A complementary approach is to pursue “linkage by degrees,” which celebrates the incremental alignment of policy designs and implementation strategies between carbon pricing programs.¹⁹ Further harmonizing carbon price designs across jurisdictions allows regulators to capture a substantial portion of the economic and environmental benefits typically associated with formal linkage, without executing a formal linkage. For example, two programs might align the level of their price floors, thereby increasing certainty for compliance entities and their consumers. In addition, aligned price floors would mitigate, to some extent, concerns over competitiveness impacts and emissions leakage across jurisdictions that formal linkage would completely remedy. As another example, a program seeking to link with another program might align its approach to ensuring that carbon offsets are of high quality with that of the other program, thereby supporting environmental integrity and bolstering emissions reductions. These types of incremental alignments of policy design, facilitated by the sharing of best practices and earned expertise over time, strengthen the implementation of each carbon pricing program. In addition, such “informal” linkage also smooths the path for formal linkage because program designs become more alike with progressive incremental alignment.

COORDINATION BETWEEN CALIFORNIA AND WASHINGTON

California and Washington each have rigorous processes to determine whether to accept another jurisdiction's program as a formally linked partner. In California, the board of the climate regulator (the California Air Resources Board, hereafter referred to as "CARB") approves linkage after a finding from the Governor that (among other factors) the program under consideration for linkage is at least as stringent as California's program. Thereafter, CARB must initiate a full rulemaking process to amend the carbon pricing program to accommodate the new link. By way of example, in 2013, Governor Jerry Brown directed CARB to undertake a number of additional steps prior to California's linkage with Québec, including a linkage readiness report, and CARB undertook a lengthy rulemaking process that resulted in a number of changes to the program rules.²⁰ In Washington, the CCA contains two sets of requirements. The first requires a formal linkage agreement that addresses a broad range of carbon pricing design features and does not adversely impact Washington's ability to achieve its climate targets. The second relates to environmental justice, essentially requiring that any linkage agreement entered into by Ecology protect against adverse effects on overburdened communities in both linked jurisdictions.

These processes mean formal linkage comes with hurdles in the short-term. Consistent with these short-term challenges, a representative from Ecology recently stated that "we're not going to be [formally linking with California] at the beginning [and] we don't know for sure when or if we will ever be linked".²¹ However, both programs indicate interest in formal linkage, and have already started laying the groundwork to be able to do so. The programs are already practicing informal linkage by sharing best practices and earned expertise. Ecology has already amended parts of their proposed regulation to mimic CARB's approach to "support [the] regulatory program and potential linkage"²² and has noticed its explicit intent to "mirror rules from [CARB] for their offset program as soon as possible".²³ In addition, Washington recently signed an agreement for WCI Inc. to administer its online auctioning platform, the same as is done in California.²⁴ This move allows for easy combining of auctions if a formal linkage were to be executed.

A ROADMAP FOR ALIGNMENT AND LINKING

A coordinated approach between California and Washington’s carbon pricing programs must move beyond the binary question of whether to formally link today. It is impractical to expect two programs that started at different times (under unique circumstances and with varying designs to reflect each states’ individual priorities) to be ready to link at the outset. A pragmatic roadmap would place formal linkage in its proper role, a longer-term objective that is best achieved through short-term alignments of program designs. This can equally be viewed as both a “no regrets” approach (since aligning program designs offers its own benefit) and as a measured strategy for maximizing the probability of a successful formal linkage. Speaking to the latter conceptualization, Burtraw et al. (2013) argue that incremental alignment helps ensure the long-term stability of a formal linkage because it “reduces the prospect of unanticipated difficulties” in the shared program.²⁵

Table 1 evaluates alignment between Washington’s developing and California’s established carbon pricing programs, adapting an approach taken by Burtraw et al. (2013). Overall, the table reveals that to date the Washington and California programs seem to have aligned some of the major design elements but others need to be addressed in more depth or reevaluated in light of linkage considerations. Also, a significant number of design elements receive a designation of “to be determined”, given that Washington’s rulemaking is ongoing. The most

important misalignments (which are highlighted) fall into five categories: noncompliance penalties; price ceilings; cap setting; allowance allocation to emissions-intensive and trade-exposed industries (EITE); and carbon offsets.

The analysis underlying Table 1 turns on five considerations represented as columns and elaborated on in the bullets below. Taken together, the table allows an assessment of whether California and Washington are ready to execute a formal linkage. If a design element is not important—based on columns two and three—or if that design element is already aligned, then we conclude that the programs are ready to formally link based on that design element. However, if a design element is important but not already aligned between these programs, then we recommend that Washington regulators prioritize these areas for alignment.

- **Design Element:** the first column decomposes a carbon price into ten design elements that represent the central choices each jurisdictions’ regulators make when creating a program. These elements cover the following topics: technical issues; emissions reduction goal; allocation of allowances; cost management; and enforcement and contingencies.
- **Environmental Integrity:** the second column analyzes whether aligning the design element is important for ensuring that the environmental integrity of both programs remains constant or further improves under formal

linkage.

- **Policy Implementation:** the third column analyzes whether aligning the design element is important for reasons unrelated to environmental integrity such as distributional, equity, or political issues.
- **Degree of Alignment:** the fourth column analyzes whether the design element is already aligned across programs.
- **Readiness for Linkage:** the fifth column analyzes whether programs are ready for formal linkage based on the design element in question.

The remainder of this paper focuses on three opportunities (listed below) to prioritize incremental alignment. For each of these design considerations, we outline differing approaches taken by California and Washington, why those differences are important, and options for aligning design. Where appropriate, we offer a recommendation on which form of alignment is preferable and outline associated benefits. By discussing these issues in detail, our aim is to capture short-term benefits through incremental alignment while simultaneously facilitating formal linkage as an outcome. This is intended to be an initial review that is not comprehensive in nature and there are therefore issues that we do not discuss that are also likely to be important to formal linkage. The remainder of this paper is focused on:

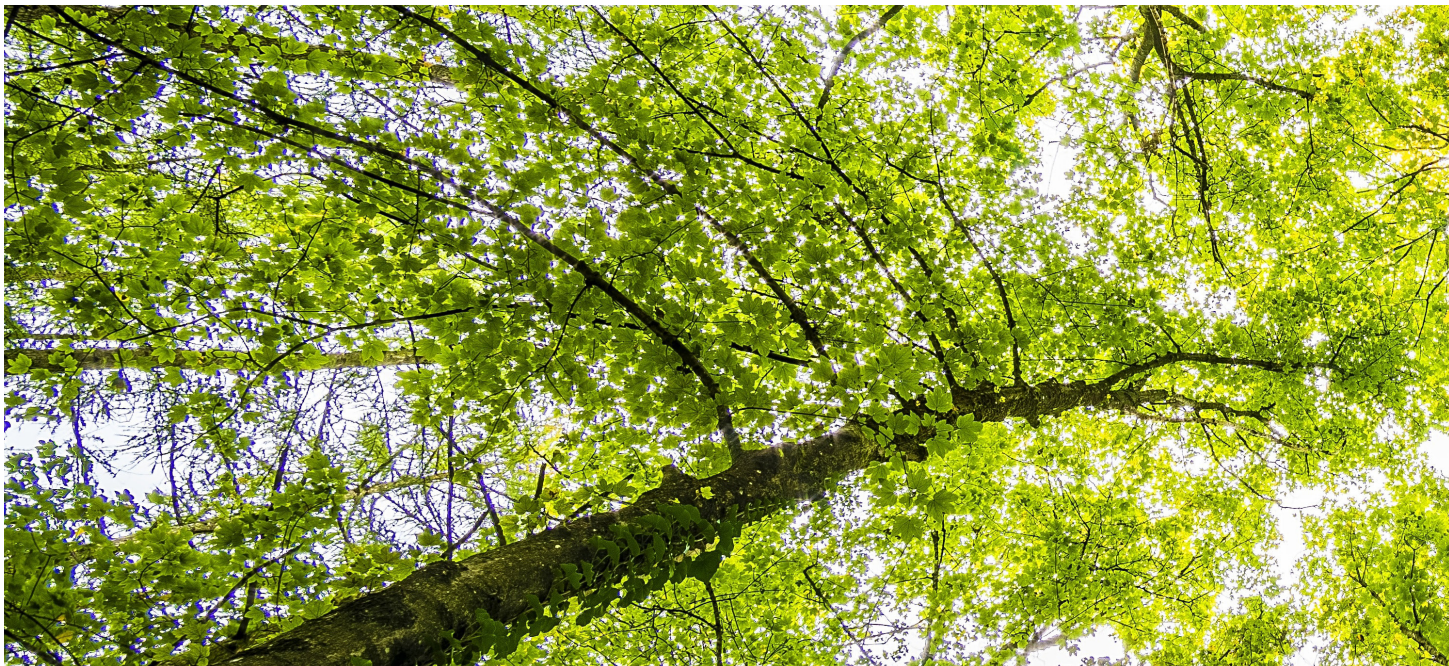
- a) Noncompliance Penalties
- b) Price Ceilings
- c) Cap Setting

Table 1

Evaluating Alignment Across Washington and California Carbon Pricing Programs

Design Element	Important for Environmental Integrity?	Important for Policy Implementation?	Already Aligned?	Ready to Link?
Technical Issues				
1. Measurement, Reporting and Verification				
a. Measurement methods	Yes	Yes	Yes	Yes
b. Reporting of process emissions	Yes	Yes	Yes	Yes
c. Reporting of fugitive emissions	Yes	Yes	TBD	TBD
d. Reporting of emissions from imported power	Yes	Yes	Yes	Yes
2. Allowance Tracking System				
a. Registries (e.g., serial number systems)	Yes	Yes	Yes	Yes
b. Data collection on transactions	No	Maybe	Yes	Yes
c. Public access to data	Maybe	Yes	TBD	TBD
Emissions Reduction Goal				
3. Emissions Cap				
a. Are caps defined in terms of total tons?	Yes	Yes	Yes	Yes
b. Are cap stringencies coordinated?	Yes	Maybe	TBD	TBD
c. Are programs binding?	Yes	Yes	Yes	Yes
d. Are other policies accounted for in cap setting?	Maybe	Maybe	No	No
4. Emissions Coverage				
a. Covered sectors	No	Maybe	Yes	Yes
b. Point of regulation	No	Maybe	Yes	Yes
c. Compliance thresholds	No	Maybe	Yes	Yes
d. Coverage of imported, fugitive, process emissions	Yes	Yes	TBD	TBD
e. Compliance periods	No	No	No	Yes
f. Compliance obligations (e.g., interim retirement)	Maybe	Maybe	Maybe	Maybe
Allocation of Allowances				
5. Allocation				
a. Method of allocation to industry EITE	Yes	Yes	No	No
b. Treatment of entrants and exits	No	Maybe	TBD	TBD
c. Use of revenue from auctions	No	Maybe	TBD	TBD
d. Measures to address leakage	Yes	Yes	TBD	TBD

Design Element	Important for Environmental Integrity?	Important for Policy Implementation?	Already Aligned?	Ready to Link?
6. Auction Coordination				
a. Third-party participation	Maybe	Maybe	Yes	Yes
b. Purchase limit	No	Maybe	Yes	Yes
c. Auction format	No	No	Yes	Yes
d. Frequency and timing	No	No	TBD	TBD
e. Common auction platform	No	No	Yes	Yes
Cost Management				
7. Temporal Considerations				
a. Banking provisions	Maybe	Yes	Yes	Yes
b. Quantitative restrictions (e.g., holding limit)	No	Maybe	Yes	Yes
c. Qualitative restrictions (e.g., value across periods)	Maybe	Maybe	TBD	TBD
8. Carbon Offsets				
a. Qualitative limits	Maybe	Yes	No	No
b. Quantitative limits	Maybe	Yes	No	No
c. Certification protocols	Maybe	Yes	TBD	TBD
d. Invalidation rules	Maybe	Yes	Yes	Yes
e. Liability rules	No	Yes	TBD	TBD
9. Price Collars				
a. Price floor and rate of change	Yes	Yes	Yes	Yes
b. Emissions containment reserve	Yes	Yes	Maybe	Maybe
c. Cost containment reserve	Yes	Yes	Maybe	Maybe
d. Price ceiling and rate of change	Yes	Yes	Maybe	Maybe
e. Use of unsold allowances	Yes	No	No	No
Enforcement and Contingencies				
10. Legal Provisions				
a. Penalties for noncompliance	Yes	Yes	No	No
b. Market oversight	Yes	Yes	Yes	Yes
c. Provisions for delinking	Maybe	Maybe	TBD	TBD
d. Process for regulatory updates	Maybe	Yes	TBD	TBD



a. Noncompliance Penalties

Certainty regarding noncompliance outcomes and strict enforcement is a key advantage of carbon pricing programs over more traditional forms of regulation, which often rely on legal proceedings and regulatory negotiations. In fact, many carbon pricing programs enjoy perfect compliance rates, although there are notable exceptions including, for example, regional carbon pricing programs in China.²⁶ In the context of formal linkage, noncompliance penalties do not have to be replicated word for word, but there needs to be mutual trust between programs that enforcement is equally consistent, certain, and strict.

California's program requires a regulated entity to surrender a quantity of allowances that is four times that entity's excess emissions—calculated as the difference between the compliance obligation and any surrendered allowances or offsets by the deadline—due within five days of the auction following that deadline. Given the timing of compliance deadlines and quarterly auctions, this gives regulated entities about one month, at most, to rectify their noncompliance. If the excess emissions are not rectified under this timeframe, then additional violations and fines begin accruing. The regulation specifies that at least three-fourths of an entity's compliance shortfall must be satisfied using allowances from California or allowances from a linked partner.²⁷

Washington's program imposes a similar requirement that a regulated entity must surrender a quantity of allowances that is four times that entity's excess emissions.

The legislation gives regulated entities six months to rectify its noncompliance. If a regulated entity fails to do so, then Ecology must issue an order (involving a plan and schedule for coming into compliance), a penalty of up to 10,000 USD per day, or both. In addition, Ecology may impose additional financial penalties. During the first compliance period (lasting from 2023 through 2026), Ecology "may reduce the amount of penalty by adjusting the monetary amount or the number of [excess emissions]."²⁸

The difference in designs between California and Washington's approach to enforcement may be significant enough to threaten a formal linkage. Specifically, Washington gives regulated entities more time and more "outs", while granting Ecology substantial discretion to lower the strength of enforcement in the early years of the program. Strengthening these provisions would help to preserve cap integrity.

To that end, we make the following recommendations to bolster the strength of enforcement as Ecology drafts regulations:

- In the event of failure to rectify noncompliance after six months, Ecology should commit to issuing both an order and a fine to the offending regulated entity by stating this plainly in regulation. This will bolster the strength of enforcement, thereby improving the overall effectiveness and environmental impact of Washington's program.
- During the first compliance period, Ecology should commit to not

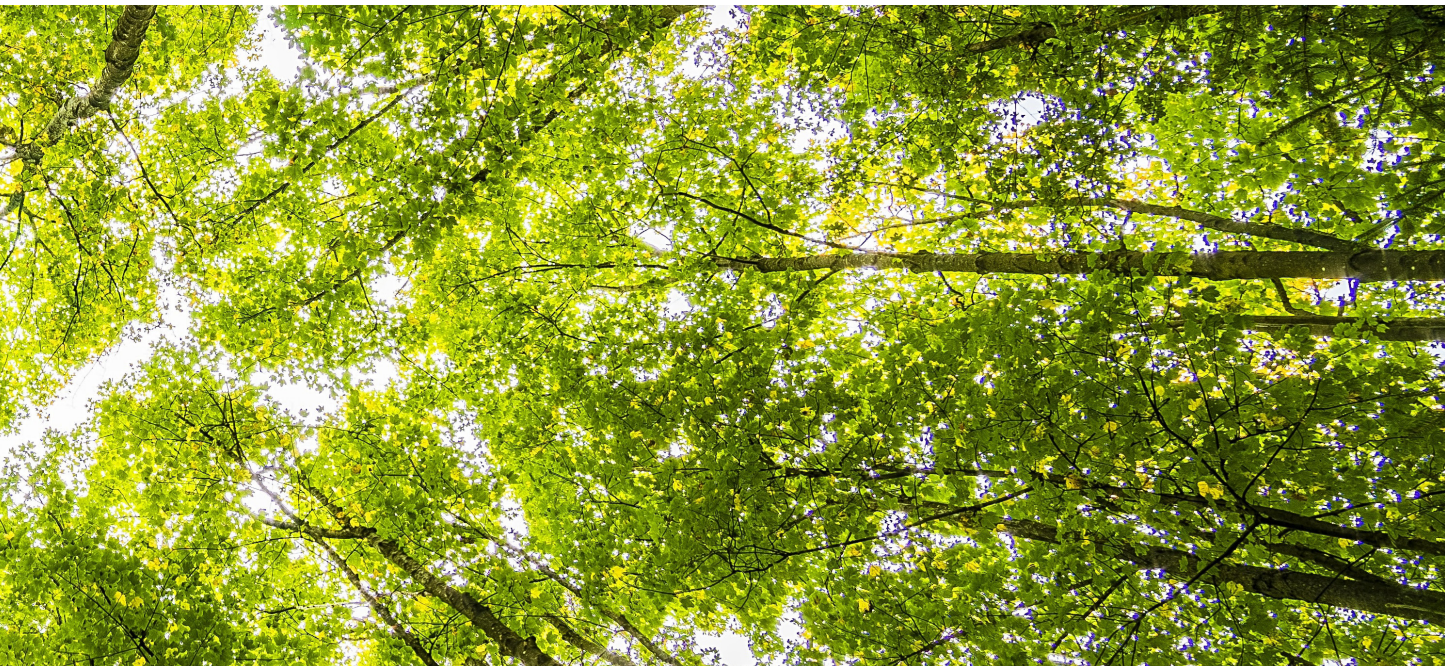
using its discretion to lower fines or the quantity of excess allowances owed. Use of discretion muddies the waters for regulators and regulated entities, in addition to diminishing smooth program functioning.

b. Price Ceilings

Regulators often design carbon prices with maximum values to protect consumers against overly high costs and to limit overall volatility. The two most common tools that serve this function are "soft" and "hard" price ceilings. Soft price ceilings provide a limited volume of additional allowances, referred to as a "reserve", at a predetermined price maximum, while hard price ceilings print an unlimited volume of additional allowances at that predetermined price maximum. Economic research suggests that a small reserve held in a soft price ceiling is an ideal way to balance costs and emissions.²⁹

Historically, carbon prices have typically been relatively low and therefore have not reached the level of the ceiling.³⁰ However, recently, a carbon pricing program in the Northeast United States, the Regional Greenhouse Gas Initiative, triggered its soft price ceiling. In addition, as programs mature and take on a more prominent role in state's climate policy mixes, we are seeing carbon prices rise substantially, with California being a prime example of this new trend. Therefore, the consideration of a price ceiling is particularly timely, as more triggers will likely occur in the near future.

California's approach to price ceilings



is to have three reserves, each with a trigger price. The first two are “soft” (starting with triggers at 41.40 USD and 53.20 USD in 2021) and the last one is “hard,” starting with a trigger at 65.00 USD in 2021. Each price increases by 5 percent plus inflation as determined by the Consumer Price Index. The hard price ceiling introduces the possibility of increased emissions because an unlimited quantity of new allowances would be printed to keep prices at the 65.00 USD trigger price. Therefore, CARB is required to use revenues from the price ceilings to purchase reductions on at least a ton-for-ton basis, thereby maintaining the environmental integrity of the cap.

The CCA directs Ecology to establish a price ceiling with a trigger that increases gradually. The trigger must be equal to “the level established in jurisdictions with which [Ecology] has entered into a linkage agreement”.³¹ The CCA states that Ecology must seed the reserve with no less than 2 percent of the total quantity of allowances available from the overall budget for the corresponding compliance period. If the allowance price containment reserve runs out of allowances, then Ecology will turn to printing new allowances while using the corresponding revenues to invest in abatement on at least a ton-for-ton basis, an approach clearly adopted from California’s design.³²

It is apparent that Washington positioned its legislation to replicate many of California’s designs for a price ceiling. In this way, the programs are

already incrementally aligning their design, regardless of whether they eventually formally link. Simply stating the intent to equate trigger prices with a linked jurisdiction is meaningful. That Washington has mimicked California’s approach in the event of a formal link shows substantial coordination and significant forethought.

Regardless of formal linkage, Washington should build upon the positive momentum from their incremental alignment with California. One strategy for doing so would be for Washington to align its trigger price with California’s levels when formal linkage occurs, as the current draft rule envisions. This would increase certainty for regulated entities, and it would protect against adverse competitiveness impacts as well as emissions leakage.

A final point concerns the finer details of auctions from the price containment reserve. Comments from Ecology in a recent workshop³³ introduce the possibility of discretionary auctions from the price containment reserve for regulated entities that are behind on their compliance efforts. This introduces uncertainty in the market and could complicate linkage efforts. Therefore, this is another area where Washington may look to align with California design. In addition, certain details around auction format differ from the designs in California, which could also prove problematic. For example, the timing and operation of auctions, particularly in the first year of the market, are uncertain in Washington.

Based on the foregoing, we recommend that:

- Washington maintain its proposed approach, which include two allowance price containment reserve tiers alongside a hard price ceiling. This approach would align with California’s approach to avoid unintended fluctuations in the carbon price resulting from differing approaches to price ceilings in the two jurisdictions.
- Washington should not adopt the concept of discretionary auctions of allowances from the price containment reserve for regulated entities that are behind on their compliance efforts. This not only introduces uncertainty but also runs the risk of incentivizing greater levels of noncompliance and overreliance on this measure.

c. Cap Setting

Cap setting is important because it is a primary determinant of the carbon price and the program feature that, when well-designed, ensures emissions decline at the pace and scale required to achieve climate targets. In turn, the difference in carbon prices between programs will be an important consideration if formal linkage negotiations begin in earnest. Because California and Washington make their own decisions about cap setting on their own timelines, there is a potential that formal linkage (or the discussion thereof) could lead both programs to strategically adopt a cap that economically benefits their respective

states. In short, the program that expects to export allowances may have an incentive to adopt a less stringent cap to create surplus allowances and an importer may have an incentive to adopt a less stringent cap to reduce spending on imports.^{34 35}

This incentive can be overcome in several ways, any combination of which may prove effective. Indeed, many argue that formal linkage leads to enhanced ambition by facilitating more aggressive caps.³⁶ The first way is through endowing a sense of responsibility towards enhanced ambition.³⁷ In other words, insofar as the intent of the formal linkage is to reduce overall emissions more quickly, then this shared vision can inherently protect against strategically permissive caps. Successful coordination between leadership in Washington and California can play a role in creating such a shared vision.

Another way is to incrementally align cap setting processes and timing. For example, California has a cap formula that lists each year's allowance budget from 2021 to 2030. Washington should strive to do the same as it promulgates its regulations. Separately, California undergoes its periodic Scoping Plan processes, after which cap levels are potentially modified. Washington has a program review for its cap-and-invest program that occurs every four years and focuses on analyzing its carbon reductions from economic, environmental, and justice perspectives. It would be beneficial for both states to include detailed information on complementary policies. It may also be useful to sync the timing of reviews across jurisdictions. This would allow for the jurisdictions to make cap setting decisions simultaneously with shared information.

A related concern is that if a program is nonbinding (that is, a carbon price of zero or a carbon price resting on the minimum "floor" price), then exports of allowances from that program to another program erodes the environmental integrity of the overall cap. In other words, in this example, the exported allowances, unlike allowances from the

local jurisdiction, do not represent an opportunity cost to regulated entities of emitting one ton of emissions.³⁸ This is not a concern in California at the moment because the carbon price is high above its floor and is therefore clearly binding. Moreover, allowance price projections expect that prices will stay well above the floor for into the future. Every allowance in the program consequently represents one ton of emissions. Modeling conducted by Vivid Economics for the Washington's Department of Ecology projects that prices will be well above the program's proposed floor price,³⁹ which suggests that this is unlikely to be a concern in Washington. However, Washington's cap-and-invest program has not started and there is therefore no price data for a direct comparison to California.

Nonetheless, to further track potential nonbinding caps, we recommend that California and Washington track the role of complementary policies in their respective programs because they are a key input to the demand for allowances. The information collected by regulators in their respective jurisdictions should be shared with all current and potential formal linkage partners. California collects and publishes this information via its periodic Scoping Plan processes. While Washington does not have to replicate the Scoping Plan process, emulating enough of the elements such that the jurisdictions' climate policy mixes are comparable and transparent would smooth the way for formal linkage.

Another point concerns the frequency and timing of auctions. As indicated in Table 1, this design element is usually unimportant for the environmental integrity or policy implementation of a formal linkage. While Ecology has specified that it will hold four auctions per year, the timing of those auctions remains uncertain. In the event of a formal linkage, Washington should adopt the same auction schedule as California in advance of formal linkage. This would be beneficial for Ecology to clarify that the timing of auctions will mirror the timing of California's auctions, providing predictability and consistency to auction

participants. That said, comments from Ecology in a recent workshop⁴⁰ make it unclear whether the quantity of auctions is fixed or not. Insofar as infrequent auctions change the total number of allowances—thereby changing the overall cap levels—then they will become important to formal linkage discussions.

A final point concerns the treatment of carbon offsets in relation to cap setting. In California, the retirement of credits substitutes for compliance with allowances, meaning carbon offset use does not impact the overall allowance cap. In Washington, the retirement of credits reduces the number of allowances allocated to an individual entity, meaning carbon offset use does impact the overall allowance cap. Depending on the extent of carbon offset credit usage in the respective jurisdictions, this may be an important consideration for formal linkage.

CONCLUSION

Washington is already incrementally aligning the design of its carbon pricing program to that of California. This coordination is not only beneficial in the short-term, but it also facilitates a long-term possibility for formal linkage and thereby large attendant benefits. This paper outlines three areas (noncompliance penalties, price ceilings, and cap setting) that must be addressed before formal linkage occurs and where California and Washington can further incrementally align their program designs. Overcoming these obstacles through consistent dialogue as well as exchange of best practices and earned expertise will be essential to successfully approaching a formal linkage.



ENDNOTES

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A ROADMAP FOR LINKAGE:

Aligning California and Washington's Carbon Prices

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