



July 15, 2022

Mr. Joshua Grice
Department of Ecology
Air Quality Program
P.O. Box 47600
Olympia, WA 98504-7600

Submitted electronically

RE: Environmental Defense Fund comments relating to the proposed rule for the Climate Commitment Act Program, Chapter 173-446 WAC

Dear Mr. Grice,

Environmental Defense Fund (EDF) appreciates the opportunity to submit the following comments on the Department of Ecology's (Ecology) proposed rule for the Climate Commitment Act Program, Chapter 173-446 WAC. 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 economy-wide, market-based solutions—and has long pursued initiatives at the state, national, and international levels designed to reduce emissions of climate-altering and health-harming air pollutants.

Washington State's Climate Commitment Act positions the state as a global leader in ambitious climate policy. The state's cap-and-trade program is only the second in the nation to put a declining, enforceable cap on emissions from across its economy. The recent Supreme Court ruling in *West Virginia v. EPA*, which constrains the EPA's authority to limit climate pollution¹, further underscores the importance of state action in addressing dangerous climate change. It is essential that states pursue aggressive climate action with every tool available to them, and Washington's Climate Commitment Act serves as an important model for other states and jurisdictions, demonstrating how to turn climate targets into an enforceable program that delivers significant emission reductions.

¹ EDF Press Release, "Supreme Court Constrains EPA Authority to Reduce Climate Pollution from Existing Power Plants. June 30, 2022. Available at: <https://www.edf.org/media/supreme-court-constrains-epa-authority-reduce-climate-pollution-existing-power-plants>

Ecology's proposed rules for the Climate Commitment Act's cap-and-invest program are designed appropriately to successfully maintain the integrity of the cap, which is essential for the climate. These rules are also well-designed to support partnerships with other states and jurisdictions, and ensure the market functions to keep Washington on track to achieve emissions reductions at the scale and pace necessary to meet the urgency of the climate crisis. **Ecology is well on its way to delivering an effective, ambitious, economy-wide program that will hold polluters accountable.** It is critical that the program is implemented on schedule this January to begin the state's emissions reductions in earnest.

Proposed rules are appropriately drafted to support linkage.

We appreciate that Ecology has designed the rule with the intention of facilitating a linkage with the Western Climate Initiative, California and Quebec's linked emissions trading system. The CCA's approach to the cap-and-invest program anticipates the potential for linkage with the California-Quebec system, and Ecology has successfully developed a framework for the program that can support linkage in the future.

On the West Coast, where states have been stepping up as climate leaders, the impacts of climate change are ever more severe and apparent, with scientists warning of a global wildfire crisis² and finding that the West's current megadrought is the worst in over 1,200 years³. Avoiding the worst impacts of climate change will require securing as many reductions as possible as early as possible to stay within the carbon dioxide budgets identified by the Intergovernmental Panel on Climate Change (IPCC) to limit global warming to 1.5°C – a grave milestone that the world could reach as early as 2030⁴. It is painfully apparent that states need to use every tool at their disposal to reduce climate pollution, immediately. **By anticipating linkage with the California-Quebec system, Ecology is setting up the cap-and-invest program and the state of Washington to play an influential role and lay out a pathway that other states can follow.**

Linking systems and creating a broader unified carbon market across jurisdictions will allow Washington to see even greater environmental benefits and achieve ambitious emission reduction goals consistent with what scientists are telling us is needed to avoid the worst impacts of climate change.

² Raymond Zhong. New York Times. "Climate Scientists Warn of a 'Global Wildfire Crisis'". February 23, 2022. Available at: <https://www.nytimes.com/2022/02/23/climate/climate-change-un-wildfire-report.html>

³ Fountain, Henry. New York Times. "How Bad is the Western Drought? Worst in 12 Centuries, Study Finds." February 14, 2022. Available at: <https://www.nytimes.com/2022/02/14/climate/western-drought-megadrought.html>

⁴Intergovernmental Panel on Climate Change (IPCC), 2018, Global warming of 1.5°C: An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty, pp. 6, 17. https://www.ipcc.ch/site/assets/uploads/sites/2/2018/07/SR15_SPM_version_stand_alone_LR.pdf.

Linkage provides significant cost savings, which reduces the burden of climate action for individuals and sustains support for further action.

Washington’s Department of Ecology recently published an economic analysis⁵ by Vivid Economics, which examined the potential outcome of linking cap-and-invest programs between Washington and California. Modeling a scenario where participants had certainty that the Washington program would link with California’s program by 2025 resulted in a significant drop in the initial allowance prices in Washington, compared to a market in which linkage wasn’t a possibility—with initial allowance prices dropping 30% from \$58.31 to \$40.74⁶. Cost savings make it easier for regulators to set greater reductions targets, and allow jurisdictions to reinvest in enhanced ambition. One 2021 study showed that the reinvestment of cost savings from linked systems could allow jurisdictions to double their emissions reductions by 2030.⁷

By making it less expensive for entities to comply with the program, linkage can mean that the costs of consumer goods, energy, and of the overall economic transition are lower. This benefits consumers and households—and **by reducing the burden of climate action for individuals, linkage can help build and sustain support for further action.**

Linkage increases market stability.

In addition to lower program costs, linkage offers other benefits such as increased market stability. When carbon markets link, the larger cap-and-invest program can be more efficient and more stable⁸. With one common carbon price across jurisdictions, liquidity is increased—meaning there is always a trading partner available to buy or sell allowances. This can help to reduce price fluctuations and insulate the market from price shocks. More stable prices means greater predictability and confidence in the system, as well as the revenue it can generate for additional climate action, both of which increase the certainty of meeting climate goals on the timeline science demands.

Linking programs builds momentum for climate action across jurisdictions.

Furthermore, linking programs can build the kind of state-level momentum on climate action that is desperately needed in the United States, now more than ever. Linkage with other systems can reduce the economic burden to individual jurisdictions; as seen when

⁵Vivid Economics. “Washington State Climate Commitment Act: Summary of market modeling and analysis of the proposed cap and invest program, Draft.” June 2022. Available at: <https://ecology.wa.gov/DOE/files/4a/4ab74e30-d365-40f5-9e8f-528caa8610dc.pdf>

⁶ Ibid.

⁷ Edwonds, James et al. “How Much Could Article 6 Enhance Nationally Determined Contribution Ambition Toward Paris Agreement Goals Through Economic Efficiency?” Climate Change Economics. 2021. Available at: <https://ideas.repec.org/a/wsi/ccexxx/v12y2021i02ns201000782150007x.html>

⁸ International Carbon Action Partnership. “Linking.” Available at: <https://icapcarbonaction.com/en/linking>

California and Quebec linked, the program linkage was able to deliver greater regional emissions reductions at lower costs than either jurisdiction would have achieved alone⁹.

Linking multiple cap-and-invest programs also creates the opportunity for participation by smaller jurisdictions or jurisdictions where the economic framework for an independent system is not feasible. By making cap-and-invest a viable policy option, linkage can expand the reach of climate policy and facilitate ambitious emissions reductions in places that otherwise would not have participated in such a program. And as these programs spread and link together, the more jurisdictions participate, the lower risk and lower cost it becomes for all involved. This can help build national momentum on climate action, lower the barrier to entry for states and jurisdictions to join the fight against climate change, and in turn enhance Washington's role as a leader on climate action at a time when state-level ambition is absolutely crucial.

As more and more states and jurisdictions consider launching their economy-wide climate policies, they should consider the advantages of designing programs that can be linked together. By setting similar levels of ambition and environmental integrity in their programs,¹⁰ states can preserve the possibility to link systems once operational. In doing so, they will be setting themselves up to achieve the greatest level of environmental ambition with less economic cost.

EDF and the International Emissions Trading Association (IETA) have developed a paper that explores linkage between California's cap-and-trade program and Washington's cap-and-invest program¹¹. The paper finds that Washington is already incrementally aligning the design of its program to that of California, which is both beneficial in the short-term and facilitates a longer-term possibility of formal linkage. The paper provides an assessment of program elements relevant to linkage, and provides a deep dive into three areas where additional alignment would be beneficial: noncompliance penalties, price ceilings, and cap setting. EDF has included this paper in our comments as Attachment A.

Clarity and predictability of program function are key to long-term stability.

For the cap-and-invest program function smoothly, it needs to be clear to all stakeholders exactly how the program will be implemented. **It is important to provide an extremely high level of clarity on the details of program function, including the timing of auctions, the distribution of no-cost allowances, and the criteria that Ecology will use in decision-making processes.**

⁹ Katie Hsia-Kiung. Environmental Defense Fund. "Vive La Linkage: California and Quebec Working Together to Fight Climate Change." December 3, 2014. Available at: <https://blogs.edf.org/climatetalks/2014/12/03/vive-la-linkage-california-and-quebec-working-together-to-fight-climate-change/>

¹⁰ European Commission. "Climate Action: International carbon market." Available at: https://ec.europa.eu/clima/eu-action/eu-emissions-trading-system-eu-ets/international-carbon-market_en

¹¹ IETA and EDF. "A Roadmap for Linkage: Aligning California and Washington's Carbon Prices." July 2022.

EDF notes that in the proposed rules, the timeline for distributing no-cost allowances has been altered for the first year of the program, with the distribution of no cost allowances delayed from October 2022 until September 1, 2023, well into the first year of the initial compliance period. Ecology should distribute no-cost allowances as soon as possible. If a delay is absolutely necessary, then Ecology should provide clarity about the reasons for the delay, including providing specific details about any constraints related to data availability and verification. By allocating allowances without delay in the first year, Ecology can ensure that market participants are able to effectively build compliance strategies and plan appropriately, contributing to the long-term stability of the program and certainty of meeting emission reduction goals.

Enforcement and penalties for non-compliance are critical elements of effective program implementation and successful emission reductions. **Penalties must be strong enough to ensure program compliance, and that the amount of the penalty must be clear and predictable to regulated parties.** In the proposed rules, Ecology retains a significant level of discretion over the penalties that regulated facilities face for non-compliance during the first compliance period; the rules specify that Ecology may reduce the overall non-compliance penalty by adjusting monetary fines and/or reducing the number of allowances required to be surrendered. EDF appreciates the inclusion of language specifying that in no case will Ecology reduce the number of penalty allowances required to a number below one allowance for each missing compliance instrument. This is an important safeguard for maintaining the environmental integrity of the program.

Nonetheless, the significant discretion regarding non-compliance penalties is concerning and could complicate future linkage between Washington's program and the WCI. To provide additional clarity, ensure smooth program function, and help facilitate future linkage, EDF recommends that Ecology clarify that it will not use its discretion to lower fines or the quantity of penalty allowances required for non-compliance during the first compliance period. Ecology should also specify that it will issue both an order and a fine to the offending regulated entity, and should state this plainly in the regulation. Doing so will provide additional clarity and certainty for both regulators and regulated entities, will provide certainty regarding noncompliance outcomes, and will enable strict enforcement. It must be clear that compliance with the program is mandatory from day one of program implementation.

Additional details on program review are needed.

EDF recommends providing additional clarity and details regarding the cap-and-invest program's program review processes—both for the report that will be submitted to the legislature by December 1, 2027 and every four years thereafter, and for the environmental justice review that occurs every two years throughout the duration of the program. Regular program review can be a transparent and effective mechanism for adaptive management, ensuring that the program is delivering desired outcomes and keeping Washington on track to meet its climate targets. Ecology should provide more detail about how program review processes will be structured—and solicit feedback on that structure—so that the program review process is predictable, clear, and accessible to all stakeholders.

EDF recommends that Ecology incorporate the following factors into its program review process:

- **Washington’s progress towards its 2030, 2040, and 2050 climate targets.**
- **The role of Washington’s complementary policies in reducing emissions.** Complementary policies and their performance are a key determinant of allowance demand. By tracking complementary policies, Ecology can better calibrate allowance supply and can build a better understanding of the role that cap-and-invest is playing in reducing Washington’s emissions. This is important for meeting statutory requirements to achieve emissions targets; while the CCA will put covered sectors on track to achieve their proportionate share of emissions reductions, more work will need to be done to meet Washington’s emissions targets, including the fast-approaching 2030 target.
- **The environmental integrity of offsets that have been used for program compliance, and an assessment of the potential impacts of offset use on air quality in overburdened communities.** This will help inform Ecology and the Environmental Justice Council (EJC) in making decisions about utilizing the CCA’s authority to reduce the number of offsets that certain covered entities located in overburdened communities can use for compliance.
- **The volume of banked allowances held by regulated entities.** Banking is an important design feature to enable near-term emission reductions, which in turn maximize the cumulative emission reductions that are most important to the climate. However, Ecology should regularly ensure that the volume of allowances in the program remain aligned with the emission reduction goals, including banked allowances.
- **The amount of allowances held in reserves,** again to ensure that the overall availability of allowances remains aligned with the statutory emission reduction targets.
- **Levels of air pollution in overburdened communities,** associated health impacts, and an assessment of the sectors and sources that are impacting those communities.

This list is non-exhaustive, and additional elements of the program’s environmental performance and market function will need to be identified for inclusion in reviews, in partnership with the EJC.

It is critical that the EJC shape the environmental justice review process, including the scope and priorities of that review. The process must be adequately resourced by Ecology, and have a clear timeline that is feasible for EJC members. The EJC’s oversight is an essential element for ensuring that the program’s environmental justice reviews deliver the intended outcome of reducing health-harming local air pollution in overburdened communities.

Ecology should provide an emissions containment reserve (ECR) trigger price and make strategic improvements to the ECR's design.

The emissions containment reserve (ECR) is an important element of Washington's cap-and-invest program design. When designed and functioning correctly, an ECR reduces price volatility in the long-term and creates environmental benefits by ensuring that the supply of allowances is reduced—and therefore the environmental ambition of the program is increased—in a scenario where allowance prices become unexpectedly low. A properly-designed ECR provides a rule-based approach to adjusting allowance supply, reducing uncertainty and helping to avoid the need for administrative adjustment to supply, which can be challenging and administratively burdensome. **Establishing an ECR at the beginning of program implementation helps protect against uncertainty and ensure the durability of the program by setting market expectations for the long-term.** As Dallas Burtraw and William Shobe point out in their comments on the proposed rules for the cap-and-invest program, past experience in many regulatory settings has demonstrated that from an administrative perspective, it is easier to establish program features at the outset of a program that guard against potential future concerns than it is to adjust program design in response to concerns that may arise later.¹² The ECR has important value in shaping price expectations in the long-run and in guarding against price declines.

The Climate Commitment Act directs Ecology to establish an ECR and set an ECR trigger price, which will determine when allowances will be withheld from auction and placed in the ECR. However, Ecology's proposed rule suspends the ECR trigger price, which is an essential element for a functioning ECR.

EDF incorporates by reference the comments on the proposed WAC 173-226 submitted by Dallas Burtraw, Resources for the Future, and William Shobe, University of Virginia. EDF echoes their three key messages:

- 1) **Washington should include an ECR and set an ECR trigger price at the beginning of the program.** EDF strongly encourages the agency to include ECR provisions in the rule and set an ECR trigger price. This is an important step that Ecology can take to set market expectations in the long-run, reduce uncertainty, and ensure the program's environmental ambition in a scenario where allowance prices become unexpectedly low.
- 2) **Adjustments to the ECR design can greatly improve the ECR's performance by integrating the ECR's operation within the quarterly auction framework, and separating out other functions including allocation to emissions-intensive, trade-exposed (EITE) entities that have expanded production and to new entrants.** The current design of the ECR treats the ECR as a separate account holding a stock of allowances for re-allocation back into the market by grant or by supplemental auction. If withdrawals are

¹² Burtraw, Dallas and William Shobe. Comments on the proposed WAC 173-446: Climate Commitment Act Program Rule. July 25, 2022.

triggered to benefit expanded EITE facilities or new facilities, the design has very little chance of reducing price volatility.

- 3) A small adjustment to the proposed rule can greatly strengthen the ECR provisions.** Instead of defining the ECR as a separate account into which allowances are placed for later sale at auction, the ECR should be defined as the 10% of allowances that can be removed from any allowance auction at the ECR trigger price. Before the auction, the number of allowances subject to this trigger reserve price would be reduced by any required distribution to expanded EITE facilities or to newly covered and opt-in facilities. New and opt-in facilities could be offered allowances at the trigger price. By making this adjustment to the design of the ECR, Ecology can deliver maximum benefits and ensure that the ECR functions to reliably and predictably reduce the supply of allowances in a scenario where demand for allowances is unexpectedly low.

For more detail to support and explain these points and recommendations, please see the comment letter submitted by Dallas Burtraw and William Shobe, attached as Attachment B.¹³

EDF urges Ecology to provide a trigger price for the ECR. Including a functional ECR with a trigger price in the rulemaking is not an impediment to linkage with other jurisdictions lacking an emissions containment reserve system. The Climate Commitment Act statute is clear that Ecology has the ability to suspend the trigger price if such a linkage occurs. Including an ECR in the cap-and-trade program could help move the WCI towards inclusion of this important design feature, with Washington State leading the way.

The price ceiling must be set sufficiently high to ensure ambitious environmental outcomes.

It is important that the program's price ceiling be set sufficiently high enough to 1) protect the environmental integrity of the program by avoiding the sale of price ceiling units above the cap, and 2) allow the market **adequate flexibility to set the appropriate price for incentivizing abatement.**

In determining the price ceiling, EDF urges Ecology to consider the potential impacts of hitting the price ceiling on Washington's progress towards reducing emissions. If the price ceiling is set too low, there is a higher likelihood of hitting the ceiling in early years and releasing allowances above the cap, potentially setting Washington back in achieving its emission reduction targets. Ecology must ensure that the price ceiling is high enough to incentivize adequate investment in emissions reductions by covered entities—particularly in the early years of the program, before linkage can occur.

Furthermore, if the price hits the ceiling and price ceiling units are sold, **it is imperative that Ecology uses the revenue to secure additional reductions on at least a ton-for-ton basis.** The ton-for-ton reductions must be additional to the emissions reductions expected from

¹³ Ibid.

normal functioning of the program. To avoid double-counting, such reductions must come from sectors that are not regulated by the cap-and-invest program, and should meet all of the same criteria for additionality as offset projects. EDF recommends that Ecology outline the specifics of its approach to securing these necessary ton-for-ton reductions if price ceiling units are sold; this will ensure that, if allowance prices reach the price ceiling, Ecology is prepared to act swiftly to keep Washington on track to achieve its climate goals and avoid any increase in cumulative emissions from covered sources.

Ecology’s proposal to frontload the allowance price containment reserve is a reasonable approach for balancing cost containment and environmental integrity.

EDF notes that in the proposed rules, Ecology is proposing to frontload the allowance price containment reserve (APCR) by taking 5% of the allowances from each annual allowance budget from 2023 through 2030 and place them in the APCR at the start of program implementation. This is a reasonable approach to cost containment because:

1. **Ecology has structured the approach to maintain the environmental integrity of the program’s overall cap on emissions and keep Washington on track to meet its 2030 greenhouse gas (GHG) emission targets.** Ecology’s proposed approach does not alter the total cumulative emissions budget for the program. Additionally, because all frontloaded allowances come from the years 2030 and earlier, it should not have a negative impact on the state’s ability to meet its 2030, 2040, and 2050 climate targets. However, Ecology should account for the availability of the frontloaded APCR allowances during the program review process and in determining how to set yearly program budgets.
2. **The frontloaded allowances are only made available via auctions from the APCR which occur at a relatively high, pre-set price.** In principle, borrowing of allowances from the future should be avoided because it can result in a higher level of near-term emissions—however, in this instance, the cumulative budget for the program remains unchanged, and frontloaded allowances are only available if necessary as a form of cost containment purchased at a pre-set APCR trigger price.

It is important to note that while the frontloading of the APCR can enhance the suite of cost containment measures available in the early years of the program, it may also create supply constraints in future years. This is a tradeoff that Ecology should carefully consider in determining how many allowances should be frontloaded into the APCR.

Ecology must collaborate with the EJC to determine clear, workable processes and priorities for fulfilling the ECJ’s vital oversight function.

Washington’s approach also includes a number of important advances in addressing equity and local air quality, both alongside the cap-and-invest program and as part of the program’s design. These tools—including prioritization of investments, and new tools for targeting local air pollution in overburdened communities—are important for ensuring that program benefits accrue in the communities that are most impacted by climate change and pollution.

The Environmental Justice Council has a critical oversight role in ensuring that the program results in equitable outcomes for overburdened communities. The cap-and-invest program's implementation process must include collaboration with the EJC and with overburdened communities. **Ecology must collaborate with the EJC to determine the best processes for collaboration, and should ensure that the EJC is able and has the resources to set priorities and workable processes for engagement.**

Among other areas of oversight, the EJC should be granted the ability to review and assess changes to the direct allocation of allowances to emissions-intensive, trade-exposed (EITE) facilities over time. Clarification of the EJC's role in decisions concerning EITEs in the final rulemaking would better prepare the Council for its role going forward. To strengthen protections of overburdened communities impacted by pollution from EITEs, EDF recommends additional language stating that Ecology may not make an upward adjustment to the reduction schedule of a facility if the department determines that the fuels, processes, and equipment used by the facility materially increase cumulative environmental impacts in an overburdened community.

Furthermore, Ecology must ensure that the program collects adequate information on the proximity of covered facilities to overburdened communities and on the environmental impacts of facilities. For example, EDF recommends Ecology include language requiring covered entities to submit additional information during registration that would enable the EJC to fulfill its role in evaluating the allocation of no cost allowances. Additional information could include entity proximity to overburdened communities and tribal lands, and documentation of air and water pollution emitted by the facility. The rulemaking currently states that facilities built after July 25, 2021 must submit information related to overburdened communities, pollution, and tribal nations. This requirement should be expanded to include all facilities including those built before July 25, 2021.

In reference to rules concerning overburdened communities, EDF appreciates Ecology's updated language stating the definition of overburdened communities "shall" include the communities identified as overburdened by the EJC as part of the HEAL Act process.

Proposed rules for allocation of no cost allowances to EITEs must be improved to effectively manage leakage risk and incentivize reductions in emissions commensurate with the CCA's ambition.

As stated in our comments on the informal draft rule¹⁴, EDF maintains that the current approach to the allocation of no cost allowances to EITEs does not properly align incentives to 1) minimize leakage risk and 2) decrease emissions intensity at a rate consistent with the CCA's ambition.

¹⁴ Environmental Defense Fund comments relating to the draft rule for the Climate Commitment Act Program, Chapter 173-446 WAC. January 26, 2022. Available at: https://scs-public.s3-us-gov-west-1.amazonaws.com/env_production/oid100/did1008/pid_202271/assets/merged/660ci1e_document.pdf?v=A2YF3SU4P

EDF recommends that Washington instead adopt an allocation methodology that mirrors California’s output-based allocation (OBA) approach, which utilizes industry-wide product efficiency benchmarks. OBA ensures that facilities are rewarded based on two key metrics: 1) how much they produce in-state, and 2) how efficiently they produce compared to similar industrial facilities. Facilities that increase their in-state production while reducing their emissions receive relatively more allowances than facilities that are not increasing production or not reducing their emissions.

A key component of this approach is the greenhouse gas benchmark, a metric for comparing emissions performance across similar industrial facilities. Product-based benchmarking establishes an emissions performance standard for each product, which is used to reward more efficient facilities on a comparative basis. Benchmarks are developed on a product-by-product basis and are developed to reflect the emissions intensity of “highly-efficient, low-emitting facilities within each sector.” The California Air Resources Board (CARB)—the state agency responsible for implementing California’s cap-and-trade program—targeted a level of stringency created by evaluating each industrial sector’s production weighted average emissions intensity during a historical base period, and targeting the benchmark to allocate 90 percent of this level per unit produced. In developing and evaluating benchmarks, CARB discovered that this stringency approach, “worked for many sectors but, in some cases, would set the benchmark at a level that was more stringent than the current emissions intensity of any existing Californian facility. For the sectors for which this occurred, staff selected a benchmark based on the “best-in-class” value (i.e., the emissions intensity of the most GHG-efficient California facility).” Washington could take a similar approach that leverages the work that California has already done to develop product benchmarks; Washington could use California’s benchmarks as a starting point, and make this manual “best-in-class” adjustment based on Washington’s facilities on an as-needed basis, particularly for sectors where there may not be multiple producers of a product.

A methodology that uses industry-wide, product-specific benchmarks rewards facilities that have taken early action to increase their efficiency; a methodology based on facility-specific emissions intensity baselines does not because it compares against a facility’s past performance rather than comparing against other facilities in the industry. Product benchmarks also create a stronger incentive for continued improvement by comparing between similar facilities on an ongoing basis, whereas facility-specific baselines can reinforce the status quo—as long as a facility’s efficiency doesn’t get worse over time, that facility will be rewarded with all of the allowances they need (adjusted only by the cap decline factor, which all facilities face equally regardless of emissions performance).

Prior to the adoption of AB 398 (Garcia, 2017) and the subsequent 2018 rulemaking, California’s cap-and-trade program regulation calculated allowance allocations for OBA utilizing an assistance factor that reflected the leakage risk faced by various industrial sectors. Facilities with a higher risk of leakage would receive a relatively higher allocation than facilities with lower leakage risk. EDF recommends that Washington adopt this approach, including leakage risk as a factor in the calculation of an EITE entity’s allocation so that allocations can address this risk more directly.

The proposed rules state that Ecology may make an upward adjustment in the allocation of no cost allowances for an EITE facility based on the facility's demonstration to Ecology that additional reductions in carbon intensity or mass emissions are not technically or economically feasible. **Providing entities with such an upward adjustment is unnecessary, especially when stacked on top of an approach that is already extremely generous, particularly during the first three compliance periods.**

Additionally, the proposed approach to upward adjustments lacks sufficient requirements needed to ensure that any evaluation of best available technology (BAT) is based on a rigorous, updating, comprehensive audit that considers impacts on neighboring communities, particularly overburdened communities. EDF strongly recommends the addition of greater detail to ensure the environmental integrity of such an approach. Any methodology for upward adjustments based on BAT must:

- **Use a comprehensive approach to evaluating emission reduction strategies** at the facility level. BAT evaluations should cover 100% of emissions from a facility and address all the potential ways to reduce emissions (including energy efficiency, fuel switching, and process-oriented measures) using an integrated approach.
- **Include a rigorous facility-specific audit** to determine BAT at each facility. The audit protocols and process determine the ultimate effectiveness of any BAT-based approach. Audits must be robust, transparent, and fair. Ecology should select auditors or play an oversight role in the selection of auditors, and there should be a rigorous review process for audit results.
- **Consider benefits to local air quality in overburdened communities** in the evaluation and prioritization of BAT measures. Benefits and impacts to local air quality in overburdened communities should be analyzed in the audit and Ecology should be directed to prioritize measures that maximize conventional co-pollutant reductions (particularly in overburdened communities) alongside reductions in greenhouse gas emissions.
- **Maintain an incentive for ongoing improvements in emissions intensity.** To maintain an incentive for ongoing improvements in emissions intensity, EITE facilities should receive fewer free allowances than needed to cover their total compliance obligation. An upward adjustment should not result in a facility receiving 100% of the allowances that they need to cover their emissions obligations.

EDF recommends that Ecology include these requirements in the proposed rule language. Furthermore, to the extent they occur, **it is critical that any allowances that are part of an upward adjustments to a facility's direct allocation still come from under the overall program cap**—upward adjustments cannot result in the exemption of any covered emissions, any increase in the annual allowance budget, or any slowing of the year-over-year reductions in annual allowance budgets. BAT must not serve as a compliance “off ramp” of any kind.

California's approach to offsets forms a foundation that Washington can build on.

Offsets play a specific and important role in the cap-and-invest program by 1) fulfilling an important cost containment function and 2) providing another source of investment for emissions reductions in uncapped sectors, such as the natural and working lands sectors. For offsets to fulfill that role effectively, offset provisions must include rigorous environmental integrity provisions and processes to ensure that emissions reductions from offsets are monitored, tracked, and verified.

Washington's approach uses an innovative method for adjusting the overall emissions budget of the program to account for the use of offsets. This approach effectively moves offsets under the cap, increasing the certainty of emission reductions from offsets and accelerating progress towards meeting Washington's statewide climate targets.

EDF supports close alignment between the offset provisions in California's program and Washington's program, because that alignment will be important for facilitating program linkage. Ecology's proposed rules on compliance offsets meet this need and are highly aligned with California's offset requirements, including for initial protocols, general requirements, crediting, tracking, verification, and the definition of direct environmental benefits. Existing CARB compliance offset protocols provide a strong foundation for initial implementation of Washington's program. In the long-term, EDF encourages Ecology to maintain consistency with California's rules while also developing offset protocols specific to Washington.

The CCA requires Ecology to encourage opportunities for the development of offset projects by adopting protocols that may utilize aggregation or other mechanisms to reduce transaction costs, and to make use of aggregation or other mechanisms to increase the development of offset projects by landowners across the broadest possible variety of types and sizes of lands, including lands owned by small forestland owners. EDF encourages Ecology to explore strategies to promote strong levels of participation by a range of diverse landowner types, including by small landowners and Tribal Nations. Ecology should update the proposed rules to include measures that can help meet these important statutory requirements and support a range of diverse landowners in developing environmentally-rigorous offset projects.

To ensure that offset usage does not slow air quality improvements in overburdened communities, Ecology should, in partnership with the EJC, develop a clear process for how the agency will use its discretion to lower the amount of offsets that can be used by a covered entity that is determined to be contributing substantively to air pollution burden in an overburdened community.

Conclusion

Thank you for considering our comments on the proposed rules for the Climate Commitment Act's cap-and-invest program. EDF appreciates the work that Ecology has done to build a structure for the program that maintains environmental integrity, ensures climate ambition, and builds a foundation for partnership with other jurisdictions. We look forward to continued

opportunities for engagement as Washington implements its nation-leading policy that puts Washington on track to meet its ambitious climate goals.

Respectfully submitted,

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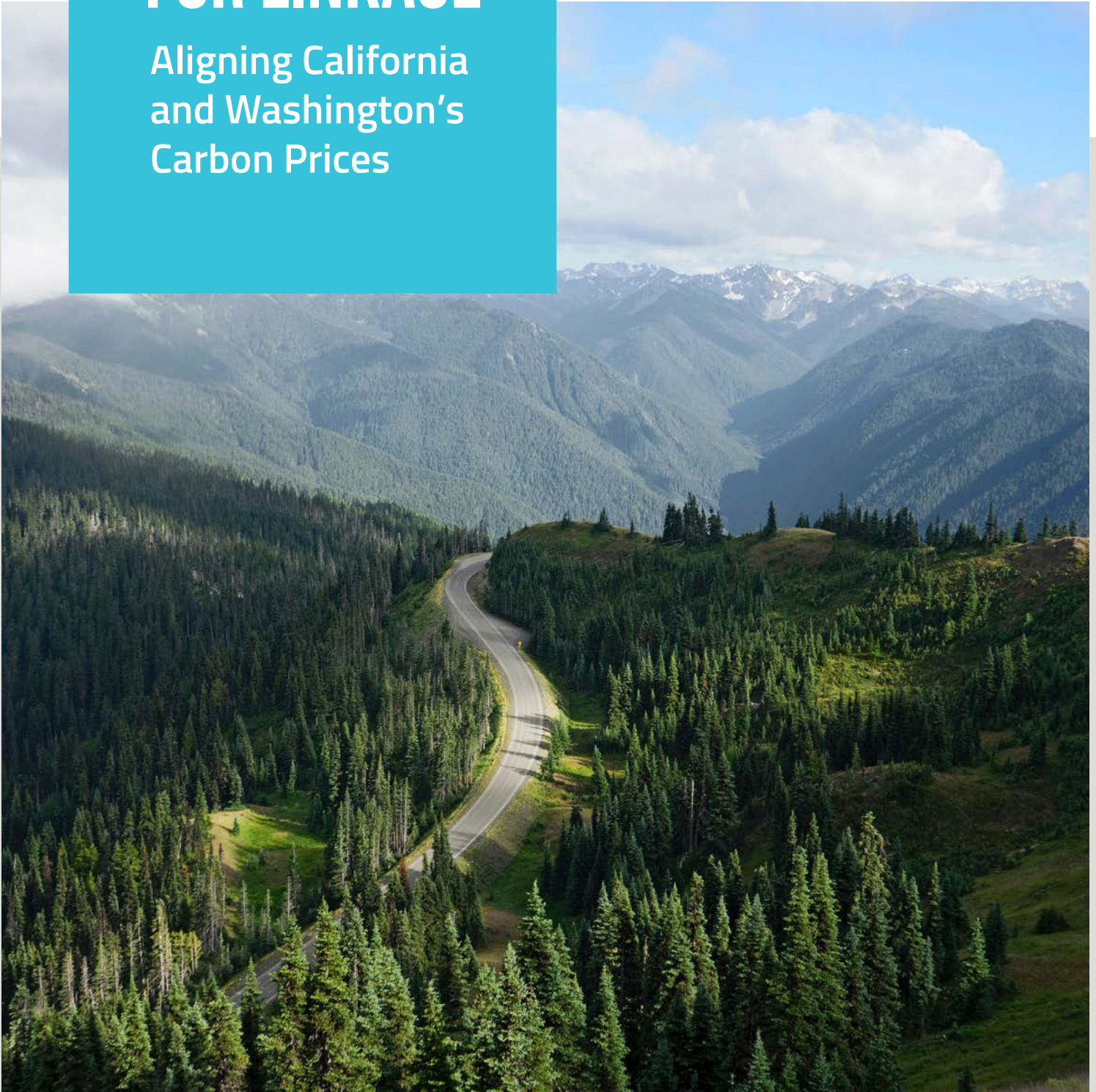
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A ROADMAP FOR LINKAGE

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

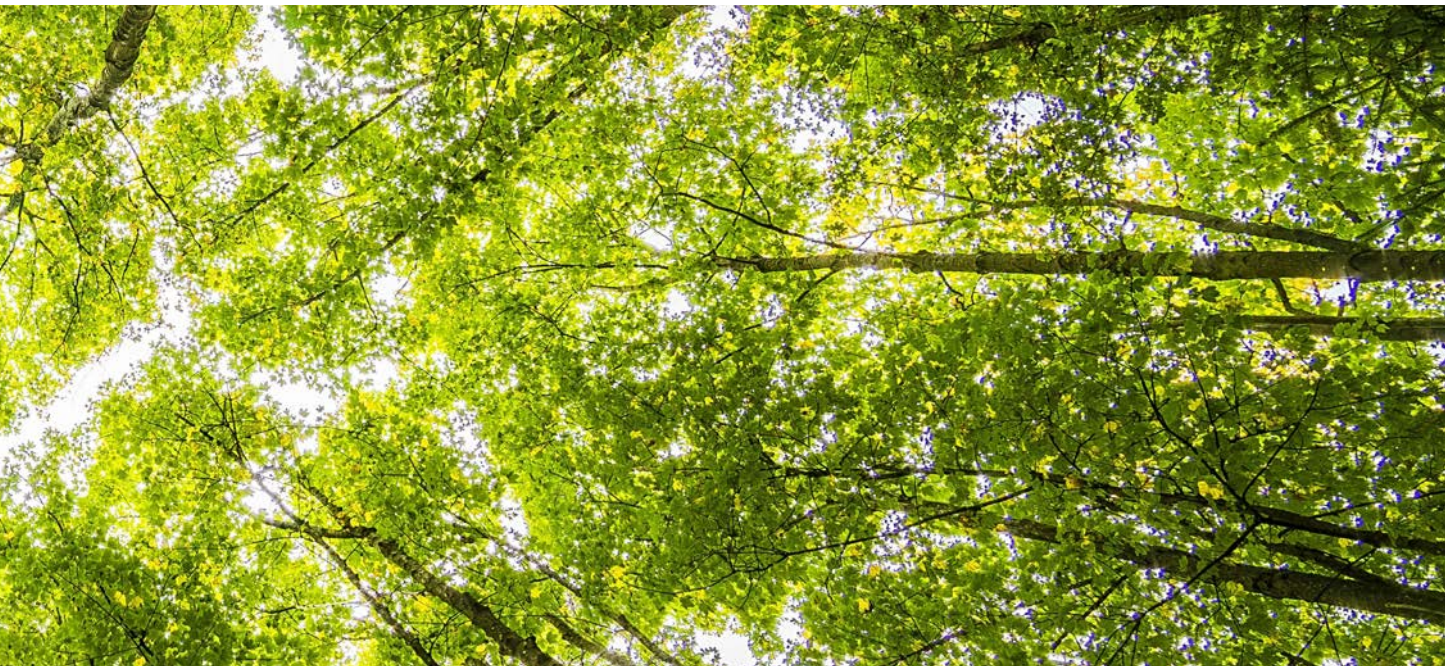
using its discretion to lower fines or the quantity of excess allowances owed. Use of discretion muddies the waters for regulators and regulated entities, in addition to diminishing smooth program functioning.

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.



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A ROADMAP FOR LINKAGE: Aligning California and Washington's Carbon Prices

For more information, please contact
Clayton Munnings
munnings@ieta.org





July 15, 2022

Dear Sir or Madam,

We are pleased to share the accompanying comments to the Washington State Department of Ecology on the proposed rule for the Climate Commitment Act Program, WAC Chapter 173-446.

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 views expressed by Dr. Shobe are his own and do not necessarily represent the position of the Rector and Board of Visitors of the University of Virginia.

If you have any questions or would like additional information, please contact us at the email addresses below. Any references cited are available from the authors.

Sincerely,

Dallas Burtraw (burtraw@rff.org)
William Shobe (shobe@virginia.edu)

Comments on the proposed WAC 173-446: Climate Commitment Act Program Rule

Dallas Burtraw, Resources for the Future

William Shobe, University of Virginia

July 15, 2022

We appreciate the opportunity to provide comments on the proposed rule on the Climate Commitment Act Program, WAC Chapter 173-446. Our comments will focus primarily on the implementation of the emission containment reserve (ECR) as discussed in sections 220, 300, 340, 357, 370 and 375.

In its standard implementation, an ECR is a mechanism for automatically adjusting the supply of emission allowances under conditions where the price of allowances is below that anticipated at the program's outset. Hence, the ECR acts to accelerate emissions reductions when the market price signals that it is inexpensive to do so.

A properly designed ECR offers a rule-based approach to adjusting allowance supply in response to market signals about allowance scarcity. This reduces uncertainty for both compliance entities and lowers administrative costs for regulators. In contrast, administrative adjustments to supply can propagate regulatory uncertainty and the expectation that one administrative intervention may foreshadow other additional program interventions.

Establishing a functional ECR at the initial implementation of the program sets market expectations for the long run and helps ensure the durability of the program. Long experience in many regulatory settings demonstrates that from an administrative perspective it is easier to establish program features at the outset of a program that anticipate potential future concerns than to adjust program design in response to concerns that may arise in the moment. Implementing the ECR in Washington before the rest of the WCI does not harm Washington's interests. It does have the potential to push the WCI towards a better market design with Washington as first mover.

Further, the ECR design in the current rule can be improved to maximize its benefits. A simpler approach than exists in the current regulation would implement the ECR as a reserve price in the primary auction, and any reserved allowances could be retired or, alternatively, placed in equal shares in the APCR tiers. This design would strengthen the ability of the ECR to reduce excess price volatility (and market uncertainty), improve price discovery, and simplify program administration.

We make three main points about the ECR proposal in the proposed rule:

- A. We strongly encourage the agency to include ECR provisions in the rule and set an ECR trigger price. This should occur whether other revisions to the proposed regulation are adopted or not.

- B. The proposed design of the ECR treats the ECR as a separate account holding a stock of allowances for re-allocation back into the market by grant or by supplemental auction. The proposed design could be greatly enhanced if it were implemented in a hybridized way by designating a portion of allowances in the ECR for distribution to allocation to energy intensive trade exposed (EITE) entities and new entrants as required by statute, and distributing the remainder of the allowances within the quarterly auction framework.
- C. Implementing the ECR through a reserve (trigger) price in the quarterly auction would simplify administration and embody best practice and deliver the maximum benefits.

The remainder of these comments provide rationale for these suggestions.

A) Washington should include an ECR and set an ECR trigger price at the beginning of the program.

An important evolution in the design of emissions markets is the move away from specifically fixed emissions allowance caps to allowance supply schedules that respond to the equilibrium price identified in an allowance auction. This reform helps to remedy the interaction of carbon pricing with other regulatory programs while retaining the virtue of price discovery and cost effectiveness associated with carbon markets.

A concern of many stakeholders is uncertainty about allowance prices, and that prices may be higher than anticipated, which is understandable given unfamiliarity with the program. The cost containment elements of the program are designed to ameliorate this concern. Very high prices can be prevented by making some additional number of allowances available at price trigger points. In the proposed rule, this is accomplished by the Allowance Price Containment Reserve (APCR) and the price containment units, both of which increase the allowance supply if the market is tighter than expected. In sum, the implementation of the ECR has little relevance to stakeholder concerns initially, because those concerns are about very high prices.

However, the ECR has important value in shaping price expectations for the long run. In every important market for atmosphere resources (sulfur dioxide, nitrogen oxides and carbon dioxide) in North America and Europe, after initial price volatility representing uncertainty and hedging activities, prices have fallen to below expectations and often fallen in real terms.¹ Perhaps surprisingly, these periods of low prices rather than high prices have constituted the major challenge to the durability of these programs. In the long run, the interaction of the carbon market with other regulatory programs becomes important as compliance entities make investments that anticipate the state's long-term climate goals, and which are informed by the current and anticipated future carbon price. The ECR provides a guardrail against unexpected price declines, including potential price effects that may result from interactions of the carbon market with companion regulatory policies.

¹ "Recognizing Gravity as a Strong Force in Atmosphere Emissions Markets," 2018 (Dallas Burtraw and Amelia Keyes), *Agricultural and Resource Economics Review*, 47(2): 201-219.

To guard against extreme price declines, it has become usual practice to have a reserve price in the allowance auction, which provides a price floor in the auction.² This means that the total number of allowances available responds to the market demand for allowances, just as one observes in commodity markets. The ECR adds a second reserve price, set at a level above the auction price floor, that applies to 10 percent of the allowances available for sale. Importantly, the ECR lowers price volatility by making automatic adjustments to the long-run allowance supply. This adjustment helps stabilize auction proceeds for program-related investments.

The performance of an ECR has been shown theoretically to improve emission market performance, and these results have been borne out in simulations, experiments, and actual practice.³ The ECR is a design element of the Regional Greenhouse Gas Initiative (RGGI) program beginning in 2021 and has been identified by observers and researchers as a meaningful reform elsewhere.⁴

We believe the time to implement an ECR is when it is not expected to be immediately relevant, which based on experience in other programs is likely to be at the outset of the program. Hence, we believe the ECR trigger price should be set in Section 340 rather than suspended as in the proposed rule. The implementation of the ECR trigger price does not generate any disadvantages for Washington, but rather protects Washington's emission market against unexpectedly low emission prices such as has occurred during later stages in a number of previous emission markets.

Washington's ECR would set an important precedent for other states potentially joining in a regional emissions market. If at some point, suspension of the ECR trigger price is required to enable program linkage, then action could be taken at that time. In the meantime, the presence of an ECR sets expectations for discussions across jurisdictions and provides a positive example that could propagate to other jurisdictions and strengthen climate policy generally.

Summary: Given the strong evidence in favor of using an ECR, we believe that it is very important that this feature be included in the proposed rule. WAC 173-446-340 should be changed so that it instates a trigger price from the outset.

² The EU Emissions Trading System has implemented a different mechanism called the Market Stability Reserve to accomplish similar goals.

³ See: "[Price-Responsive Allowance Supply in Emissions Markets](#)," 2022 (Dallas Burtraw, Charles Holt, Karen Palmer, and William Shobe). *Journal of the Association of Environmental and Resource Economics*, 9 (5): 851–884, <https://doi.org/10.7910/DVN/DHU5PM> , and Roberts, M.J., and M. Spence. 1976. "Effluent Charges and Licenses Under Uncertainty." *Journal of Public Economics*, 5 (3-4): 193-208.

⁴ [2021 IEMAC Annual Report | CalEPA](#)

B) Adjustments to the ECR design can greatly improve its performance by integrating its operation within the quarterly auction framework, and separating out other functions including allocation to EITE entities and new entrants

The purpose of the ECR is to accelerate emissions reductions when it is inexpensive to do so, and to reduce unnecessary market uncertainty (price volatility). Maintaining price stability will enhance the availability of auction proceeds directed at investments under the program. But in markets for commodities like emission allowances, the price is a reflection of expectations about the long-run balance between supply and demand. Shifting the availability between periods or among market participants will not have significant effects on those expectations of scarcity, and hence will not have a significant or any effect on price volatility. To be most effective at reducing market uncertainty, the ECR must be designed to adjust long-run supply.

Unfortunately, the ECR implementation in the proposed rule does little or nothing to address long-run imbalances between supply and demand. Even if a low market price clearly signals low-cost emissions reduction opportunities and an excess supply of allowances, the proposed ECR does not appreciably change the number of allowances allocated. This is because many, if not all, of the allowances sequestered in the ECR account are promptly recycled back into the allowance supply through supplemental auctions. Because the long-run supply doesn't change, any effect on current prices will be smaller than what is needed, indeed if there is any effect at all.

We offer a detailed description of the proposed regulation and examples of potential outcomes. Section 375 of the proposed rule specifies two avenues for the distribution of allowances held in the ECR: (1) free distribution to EITE facilities and (2) an auction to covered entities and opt-in entities whenever a new covered or opt-in entity enters the program. Figure 1 depicts the various flows into and out of the ECR. The first problem with this language is that there is no ordering or priority given to these two purposes, which may conflict. The second problem, and the one most relevant for the effectiveness of the ECR is that these allowances are simply recycled from the primary auction to a secondary auction. This mechanism does not reliably reduce the excess supply of emissions. These provisions should have no effect on the market price.

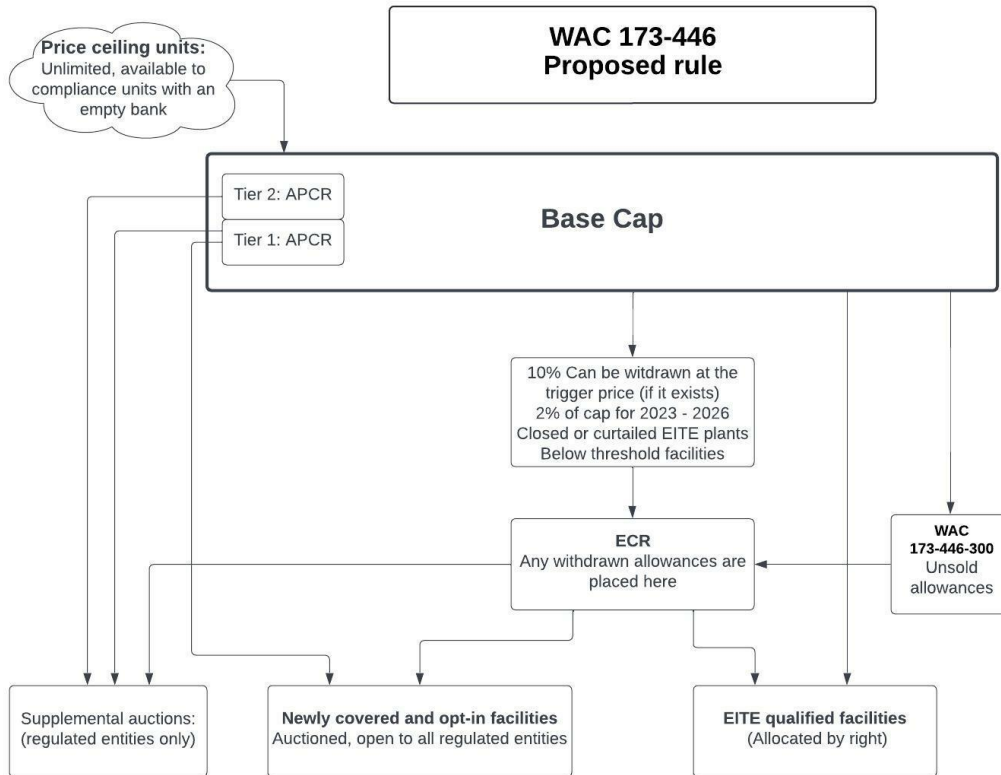


Figure 1: Allowance allocation in the proposed rule

A specific example may help clarify this issue. Suppose a quarterly auction closes at or below a \$25 ECR trigger price, resulting in 10 allowances not being sold and being placed into the ECR. Suppose that a EITE distribution of 20 allowances is required. That distribution will draw down the ECR by 10 and subsequently it will draw down the next auction amount by 10. Had the ECR not been triggered withholding the sale of the 10 allowances in the first auction, the next auction would be reduced by 20. In either case, there has been a net transfer of 20 allowances from the available stock to the EITE facility. The scarcity of allowances has not changed. No effect on price should be observed due to the presence or absence of the ECR.

Alternatively, suppose that there is no call for distributions to EITE facilities, but a new or opt-in facility triggers the auctioning of the ECR stock of 10 allowances. The same compliance entities that bid in the quarterly auction will bid in this auction. The 10 allowances removed earlier in the primary auction would be brought into the market. Although the regulatory language appears ambiguous, it appears that because all auctions use the same structure including an ECR trigger price applied to ten percent of the allowances for sale in that auction.⁵ Consequently, in the secondary auction, if market fundamentals have not changed, 90 percent

⁵ See WAC 173-446-357. Note that, even if the trigger reserve applied to all ECR allowances sold in the supplemental auctions, the proposed mechanism would not achieve the intended result because the ECR mechanism would not adjust the long-run supply of allowances.

of the ECR stock will re-enter the market and only 10 percent of the ECR stock will remain in the ECR. The ECR allowances will be sold at a market price below the trigger price. In the worst case, anticipation of this possible outcome could influence the behavior of market participants. The potential for mischief is great. One immediate (if incomplete) fix to this possible outcome is to apply the ECR trigger price to all allowances sold in the supplemental auction.

Alternatively, if the new source is large enough to drive the market price above the ECR trigger price, the new auction closing price will rise above the trigger. Either way, the presence or absence of the ECR has had little or no effect on the stock of allowances in the market. Thus, we cannot expect the market price to be influenced in a meaningful way due to the presence of the ECR.

The situation in which a new source triggers a withdrawal from the ECR may be a somewhat rare occurrence, but the ECR stock must still be considered to be part of the long-run supply of allowances, and its presence will put downward pressure on the market price. The entire ECR stock (or at least 90% of it) could reenter the market in a single auction triggered by a single new entrant, potentially at a price below the ECR trigger price.

The sequence of auctions provided for in the current draft rule may create an opportunity to benefit from strategic behavior, affecting the likelihood these situations are observed. The fundamental problem with the current ECR proposal is that it is implemented as a temporary separate account where allowances sit for a short time before reentering the market, and the allowances directed to the benefit of EITE and new facilities are comingled with other allowances in the ECR. Consequently, it is possible that allowances flow into the ECR if demand is slack but then flow right back out into the same slack market. The anticipation of the future return of ECR allowances to the market must lower the current market price.

The proliferation of auctions with different allowed participation may contribute to unnecessary price volatility. Various auctions in the proposed rule with different numbers of participants and different rules about how many allowances parties may purchase can be expected to result in different prices in different auctions, differences that have little to do with underlying market expectations about allowance scarcity. It may also create incentives for market participants to manipulate their bids in ways that are very hard to predict in advance. The better option is to reduce the number and variety of auctions.

Summary: The current design of the ECR treats the ECR as a separate account holding a stock of allowances for re-allocation back into the market by grant or by supplemental auction. If withdrawals are triggered to benefit EITE or new facilities, the design has very little chance of reducing price volatility.

- C) A simple adjustment to the proposed rule can distinguish the distribution of allowances to benefit EITE and new entrants from other (general) allowances in the ECR. The ECR allowances not used for EITE facilities and new entrants would be sold in the normal quarterly auction but with the trigger price as the reserve price for those allowances, as currently provided in Section 357. This would embody best practice and deliver maximum benefits**

The function of the ECR in the proposed rule can be made consistent with best practice design with a small change in the proposal. Instead of defining the ECR as a separate account into which allowances are placed for later sale at auction, the ECR can be defined as the 10 percent of allowances that can be removed from any allowance auction at the ECR trigger price. (This is equivalent to applying an ECR reserve price to the 10 percent of allowances.) Before the auction, the number of allowances subject to this trigger reserve price would be reduced by any *required distribution to EITE facilities*. If legislation requires new and opt-in facilities to have preferential access to the ECR, they could be offered ECR allowances at the trigger price, which guarantees they will receive the allowances. We should emphasize that the best approach both for climate and for supporting good market function would be to separate ECR auction design from the EITE distribution and the distribution to new sources.

Any auctioned ECR allowances not meeting the (trigger) reserve price would be retired. Another, somewhat less preferred, option would be to add unsold allowances to the APCR. Retirement is preferred because it better advances climate action and better fulfills the intended purpose of an ECR by adjusting the allowance supply. Retiring allowances that do not meet a reserve price is equivalent to adding them to the stock of price containment units, what we might think of as Tier 3 of the ACPR. Allowances not sold at the regular auction reserve price would be reallocated in the same way. Figure 2 shows the allowance flows in this suggested approach to the ECR.

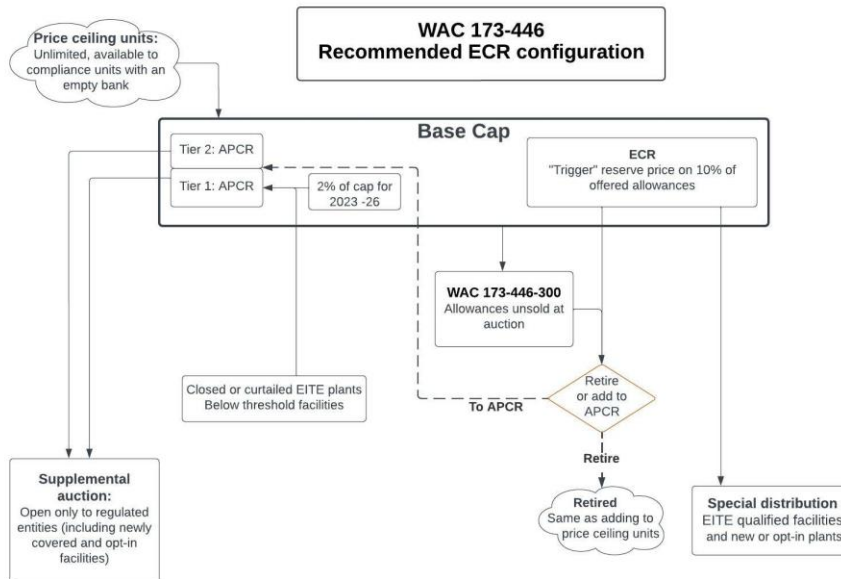


Figure 2: Recommended ECR configuration

This mechanism responds to the slack allowance market by taking the ECR allowances and making them available only if the market becomes tight enough that the price rises high enough to make it worth purchasing them at the higher prices in the APCR or price ceiling. The key feature of the ECR design is to add steps to the allowance supply so that, as the market becomes over-supplied, the supply automatically shrinks. The portion of supply removed is then made available in the eventuality of high future scarcity. If companion regulatory policies are effective enough in reducing emissions so that the price never reaches the price at which more allowances are released, it is conceivable that these allowances would never be needed, but they serve as valuable insurance against potential shocks resulting in unexpectedly high prices

This is how the ECR is implemented in RGGI; the RGGI ECR is implemented as a reserve price in the primary auction and if the auction clearing price is at or below the ECR trigger (reserve) price then some portion or all of the ECR allowances are not sold. This design has the considerable advantage of reducing the complexity of the auction provisions in this proposal. The only auctions needed in this revised ECR are the regular periodic auctions and any sales of allowances from the APCR and price containment units.

EITE facilities receive their allowances by right from the total available amount to be auctioned (or possibly from the ECR portion of the allowances at auction), so these allowances would not be available at auction. New, expanded and opt-in facilities would also receive their allocation from the total auction quantity (or, if necessary, from the ECR portion), offered at the trigger

price. Administration would be simplified and competition improved by reducing the number of supplementary auctions.

Further, we suggest the proposed rule should minimize the instances where participation in an auction or market activity is limited to compliance entities. Such rules invite costly activities on the part of brokers, investors, and compliance entities to circumvent them and are very difficult to enforce. Moreover, emission markets are generally quite liquid, hence the market price of allowances and the price of allowances at auction will be quite close, so there is little to no effect resulting from restricting participation in the auction even if it can be effectively enforced. However, doing so may convey a disadvantage to smaller compliance entities with less in-house market expertise because brokers often provide valuable services to compliance entities. The participation of brokers and investors in auctions generally should be encouraged.

Summary: A small modification to the proposed rule can greatly strengthen the ECR provisions. In Section 375, remove the reference to the ECR being a separate account. The rule can simply provide that allowances that are not sold be retired. No supplemental auctions relating to implementation of the ECR, such as those in Paragraph 2, need be mentioned. This small change will greatly enhance the function of the ECR provisions in this proposed rule.