

## Cap-and-Invest Program Allowance Auction Revenue Forecast Summary June 2025

#### Purpose

To update revenue estimates from Cap-and-Invest allowance auctions under the Climate Commitment Act and provide a summary of the process and methodology for forecasting this fund source.

#### Background

In 2021, the Legislature passed the Climate Commitment Act (CCA), <u>Chapter 70A.65 RCW</u>, establishing a comprehensive, market-based program to reduce carbon pollution and achieve statutory greenhouse gas limits.

Under the CCA, the Cap-and-Invest Program sets a limit, or cap, on overall carbon emissions in the state and requires businesses to obtain allowances equal to their covered greenhouse gas emissions. <sup>1</sup> These allowances can be obtained through quarterly auctions <sup>2</sup> hosted by Ecology's contracted vendor, by direct allocation from Ecology, or bought and sold by entities on a secondary market. The cap is reduced each year to help ensure Washington achieves its 2030, 2040, and 2050 emissions limits, which means Ecology will issue fewer emission allowances each year. Fewer emission allowances should ultimately result in lower revenue amounts.

The program began on January 1, 2023. The first allowance auction took place on February 28, 2023. As of June 2025, Ecology has held ten quarterly auctions and three Allowance Price Containment Reserve (APCR) auctions. Refer to the accompanying Excel workbook and the sheet "Revenue-Historic Actuals" for specific auction results and cumulative revenue info.

For more information on the Cap-and-Invest Program, please visit: <a href="https://ecology.wa.gov/Air-Climate/Climate/Climate-Commitment-Act/Cap-and-invest">https://ecology.wa.gov/Air-Climate/Climate-Commitment-Act/Cap-and-invest</a>.

#### Accounts and Revenue Overview

The CCA established three primary accounts to house Cap-and-Invest auction proceeds until they are appropriated for specific uses and projects by the Legislature: The Climate Investment Account (CIA), the Carbon Emission Reductions Account (CERA), and the Air Quality & Health Disparities Improvement Account (AQHDIA). The 2021 Legislature also created two accounts which receive revenues from the CIA: the Climate Commitment Account (CCA) and the Natural Climate Solutions Account (NCSA). Funds from each of these five accounts are appropriated by the Legislature to be invested in specific types of climate, environmental justice, and ecological projects throughout the state. Per RCW 70A.65.100<sup>3</sup>, statute sets those deposit amounts. Prior to June 2025, the CERA included two additional accounts, the Climate Active Transportation and Climate Transit Program Accounts. The Legislature repealed these accounts in Chapter 417 Laws of 2025 (ESSB 5801, Sec 801). All residual funds in the two accounts were deposited back into CERA.

<sup>&</sup>lt;sup>1</sup> https://ecology.wa.gov/Air-Climate/Climate-Commitment-Act/Cap-and-invest/Emissions-reporting

<sup>&</sup>lt;sup>2</sup> https://ecology.wa.gov/air-climate/climate-commitment-act/cap-and-invest/auctions-and-market

<sup>&</sup>lt;sup>3</sup> https://app.leg.wa.gov/RCW/default.aspx?cite=70A.65.100





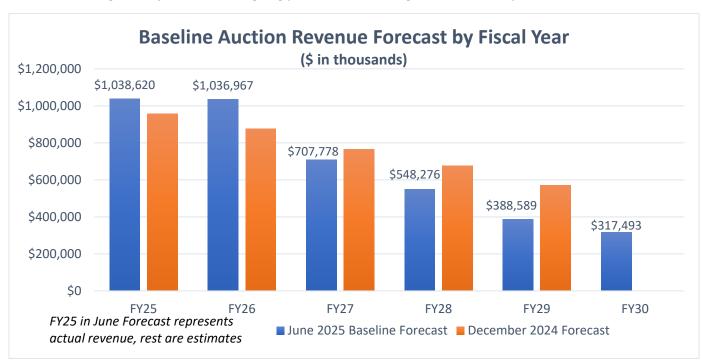
# AOTH Air Quality & Health Disparities Improvement Account

For projects that help identify and reduce criteria pollutants and health disparities in overburdened communities highly impacted by air pollution.

Subject to appropriation by

#### Updated Revenue Forecast

Ecology provided its first (informal) revenue estimates for the Cap-and-Invest Program auctions in October 2022, prior to holding its first quarterly auction. The first official revenue forecast was provided in November 2023. The revenue estimates provided in the summary below reflect current information regarding auction results as of June 2025, including the results from both Washington and the combined California/Québec market, as well as updates to allowance supply and expected allocations for Washington's program. Washington's Cap-and-Invest Program is designed to be compatible with the joint carbon market operated by California and Québec, allowing for potential future linkage. While Washington currently runs its market separately, linking would enable allowance trading across jurisdictions, aligning prices and increasing market efficiency.



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Cap-and-Invest Program Allowance Baseline Auction Revenue Forecast- Summary FY25-FY30

#### Most Recent Forecast - released in June 2025

\$ in thousands	FY25 <sup>1</sup>	FY26	FY27	FY28	FY29	FY30
<b>Total Auction Revenue</b>	\$1,038,620	\$1,036,967	\$707,778	\$548,276	\$388,589	\$317,493
26A - CERA	\$366,558	\$359,117	\$359,117	\$359,117	\$359,117	\$317,493
26E - AQHDIA <sup>2</sup>	\$2,500	\$10,000	\$10,000	\$10,000	\$10,000	\$0
26B - CIA <sup>3</sup>	\$669,562	\$667,850	\$338,661	\$179,159	\$19,472	\$0

#### Previous Forecast - released in December 2024

\$ in thousands	FY25	FY26	FY27	FY28	FY29	FY30
<b>Total Auction Revenue</b>	\$956,086	\$876,372	\$766,584	\$676,196	\$571,823	N/A
26A - CERA	\$366,558	\$359,117	\$359,117	\$359,117	\$359,117	N/A
26E - AQHDIA <sup>2</sup>	\$2,500	\$10,000	\$10,000	\$10,000	\$10,000	N/A
26B - CIA <sup>3</sup>	\$587,028	\$507,255	\$397,467	\$307,079	\$202,706	N/A

#### Change – December 2024 to June 2025

\$ in thousands	FY25	FY26	FY27	FY28	FY29	FY30
<b>Total Auction Revenue</b>	\$82,534	\$160,595	(\$58,806)	(\$127,920)	(\$183,234)	N/A
26A - CERA	\$0	\$0	\$0	\$0	\$0	N/A
26E - AQHDIA <sup>2</sup>	\$0	\$0	\$0	\$0	\$0	N/A
26B - CIA <sup>3</sup>	\$82,534	\$160,595	(\$58,806)	(\$127,920)	(\$183,234)	N/A

<sup>&</sup>lt;sup>1</sup> Reflects actual revenue collections for completed auctions during fiscal year 2025.

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<sup>&</sup>lt;sup>2</sup> FY26-FY29 amounts based on legislative intent in RCW 70A.65.280(3) that no less than \$20 million per biennium be dedicated to Air Quality & Health Disparities Improvement Account (AQHDIA) for the purposes of the account.

<sup>&</sup>lt;sup>3</sup> Annually, beginning July 1, 2023, the State Treasurer will transfer revenues available in the Climate Investment Account (CIA) that are not already appropriated in the account to administer the program. Per RCW 70A.65.250, 75% will be transferred to the Climate Commitment Account (Fund 26C) and 25% will be transferred to the Natural Climate Solutions Account (Fund 26D). State Treasurer transfers are not reflected in the revenue estimates above (revenue is shown in CIA).



The baseline forecast auction revenues for fiscal years 2025 through 2029 are projected to total \$3.72 billion, representing a \$127 million decrease compared to the December 2024 forecast for the same period. The updated June 2025 forecast also includes an additional \$317 million in projected revenue for fiscal year 2030. Projected revenues for fiscal years 2025 through 2030 total \$4.04 billion.

When broken down by biennium compared to the December 2024 forecast, the actual revenue for the 2023–25 biennium increased by \$82.5 million and the forecasted revenue increased by \$101.7 million for the 2025–27 biennium but decreased by \$311.1 million for the 2027–29 biennium, for the net \$127 million decrease.

Despite higher than forecasted average auction prices in the baseline scenario (\$43.86 per allowance vs. \$41.35 in the December 2024 forecast), the significant reduction in state-owned supply is the primary driver of the lower revenue estimate compared to the previous forecast.

Although Ecology is required by rule<sup>4</sup> to offer an APCR auction each year before the annual compliance deadline. Ecology conservatively assumes in this forecast no revenue as a result of these required APCR auctions.

Under current statute (RCW 70A.65,100), for fiscal years 2026 -2037 the first \$359,117,000 in revenue must be deposited into the CERA account each fiscal year. This forecast projects a shortfall in revenue starting in fiscal year 2030. There are many variables that will affect actual auction revenue over the next several years, and each successive forecast should provide a more accurate picture of actual revenue. Ecology will continue to monitor annual revenue and will work with OFM and the Legislature as appropriate.

**Please note**, as the Washington's Cap-and-Invest Program's allowance market is still new, there remains a <u>high</u> <u>level of uncertainty</u> in any estimates of auction proceeds into the future. While the updated projections above represent Ecology's best estimate of potential revenues, actual auction proceeds could be higher or lower, depending on the actual price that allowances sell for at each auction (the settlement price<sup>5</sup>).

State-owned allowance supply available for auction is also variable—in part based on updated allowance allocation to industry and electric utilities. When allocation to utilities goes up, then fewer state-owned allowances are available to auction and less revenue is generated for the state. Future annual allocation of allowances to utilities is difficult to predict due to regulatory changes, market dynamics, carbon intensity of source fuel mix, and more.

Because of these inherent uncertainties, we strongly recommend caution when relying on these forecasted projections to appropriate funds from the associated accounts. The early years of emissions trading systems, such as Washington's, are the most variable in allowance prices, and therefore in revenue.

forecasted, average, or projected price.

<sup>&</sup>lt;sup>4</sup> Chapter 173-446 WAC:(2)c

<sup>&</sup>lt;sup>5</sup> The terms "allowance price" and "settlement price" are sometimes used interchangeably. Ecology refers to settlement price, or allowance settlement price, as the *actual* price per allowance as determined by an auction. Allowance price may also refer to the settlement price, but in the context of this forecast, "allowance price" is generally used to refer to a



#### Summary of Changes Between This June 2025 Forecast and Previous Forecasts

The forecasts Ecology released in June 2024 and November 2023 used similar methodology, which projected future allowance prices based on a rolling average of the previous auction settlement prices in each jurisdiction and then deriving the average prices from those averages as the baseline for future, inflation-adjusted allowance price increases.

The forecast Ecology released in December 2024 used a different methodology, which is explained in the following section (<u>Forecasting Methodology for Estimating Revenue Proceeds</u>). This June 2025 forecast uses the same methodology for forecasting the Washington auction settlement prices as was used in the December 2024 forecast.

Several factors have contributed to the change in forecasted revenue over what was forecasted in December 2024

- Washington actual settlement price updates: The actual average current vintage settlement price over Washington's first three quarterly auctions in 2024 (Auctions #5-7) was \$28.52. In the next three auctions (#8-10), the settlement prices were \$40.26, \$50.00, and \$58.51 (\$49.59 average).
  - Futures prices for allowances traded on the secondary market also remain higher in June 2025 compared to values as of December 2024, which has an upward effect on this revenue forecast.
- Joint California/Québec price updates: The <u>average settlement prices</u><sup>6</sup> for the previous four California/Québec auctions is \$29.32. At the time of the June 2024 forecast, one year ago, the average of the previous four auctions was \$38.16; and at the time of the November 2023 forecast, \$33.03. After peaking in Q1 of 2024, settlement prices in the California/Quebec market have been trending lower, which has a downward effect on the June 2025 revenue forecast.
- Washington state-owned allowance supply: The December 2024 forecast reflected a net reduction of state-owned allowances of more than 2.7 million, compared to the June 2024 forecast. This change was driven by a number of factors impacting allowance supply, including the <u>schedule for no-cost allowance</u> <u>allocation</u><sup>7</sup> to utilities for 2023-2026 that was updated in October 2024.

This June 2025 forecast reflects an increase of nearly 11 million allowances allocated to electric utilities for the years 2027 through 2030. This increased allocation reduces the number of allowances available for sale and has a **significant downward effect on the June 2025 revenue forecast.** 

This increase in estimated allocation is based on the estimate of likely electricity sector responses to regulatory requirements, expected fuel mix, and other factors. As with other aspects of this revenue forecast, these assumptions will be revised as information changes.

<sup>&</sup>lt;sup>6</sup> https://ww2.arb.ca.gov/our-work/programs/cap-and-trade-program/program-data/cap-and-trade-program-data-dashboard#Figure2

<sup>&</sup>lt;sup>7</sup> https://apps.ecology.wa.gov/publications/documents/2302031.pdf



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Passage of 2SHB 1975 (Chapter 320, Laws of 2025): This bill adjusts the Allowance Price Containment Reserve and Price Ceiling Unit prices. Rulemaking to implement HB 1975 is currently underway<sup>8</sup>. Once rulemaking is completed—expected before October 2026—we will have a clearer understanding of how annual allowance budgets will be affected. Beginning in 2031, additional allowances will be removed from the annual budgets (primarily outside the scope of this forecast) and transferred to the APCR account. The impact on revenue is currently indeterminate. The overall effect of the bill is not reflected in this iteration of the revenue forecast.

Below is an explanation of the major allowance supply changes compared to the December 2024 forecast for each affected table found in Appendix A. The total number of allowances change from the previous forecast refers to the total change in Calendar Years 2025-2030.

#### Table 13:

- An additional 10,874,898 allowances are allocated to electric utilities compared to December 2024 forecast, which decreases the number of state-owned allowances available for auction (Table 17).
  - The published allocation values for 2023-2026 are kept in this forecast, although once actual allocation occurs for 2026, that value may also increase substantially (by several million allowances).

Allocation is based on each utility's forecast of retail load and expected resource supply to meet that retail load. That projection of resource supply is multiplied by the applicable greenhouse gas emissions factors. This forecast incorporates the annually updated <a href="BPA ACS emissions factor">BPA ACS emissions factor</a>, updated energy assumptions about rate of decarbonization, and utility-specific calculations. <a href="Read more about electric utility">Read more about electric utility allocation here.</a>

#### o Table 15:

- Number of offsets used for compliance will be updated with actual values each December, following the annual compliance events. Estimated offset usage in 2029 is 87,979 lower in this forecast compared to the December 2024 forecast, based on the assumption that offset use is 3% of annual emissions budgets. The increase in Table 13 has a knock-on effect in the out years for Table 15.
- Table 17: Current vintage allowances to be sold in calendar year (CY) 2026 through CY 2030 decreased in each year compared to the previous forecast, for an overall net decrease of 9,215,413 state-owned allowances, compared to the December 2024 forecast.

Despite higher than forecasted average auction prices in the baseline scenario (\$43.86 per allowance vs. \$41.35 in the December 2024 forecast), the significant reduction in forecasted state-owned supply is the primary driver of the lower revenue estimate compared to the previous forecast.

<sup>&</sup>lt;sup>8</sup> https://ecology.wa.gov/regulations-permits/laws-rules-rulemaking/rulemaking/wac-173-441-446-cap-and-invest-program-updates-and-linkage

<sup>&</sup>lt;sup>9</sup> https://apps.ecology.wa.gov/publications/documents/2302002.pdf



#### Forecasting Methodology for Estimating Revenue Proceeds

#### Forecasting Settlement Prices

The June 2024 forecast used the average of the preceding four auction settlement prices in each jurisdiction and estimated current vintage allowance settlement prices in future auctions by increasing prices at a rate of 5% plus the prior year's inflation to create the official (baseline) forecast. As stated in that June 2024 forecast, it was Ecology's intent to use this same methodology in subsequent forecasts. However, given the significant change in settlement prices for Washington's Auction #5, #6, and #7 compared to the trend of the first four auctions, Ecology, in consultation with the Office of Financial Management (OFM), determined that using the same methodology would result in an unrealistically low forecast.

The settlement price for Washington allowances fell sharply in calendar year 2024 after the introduction of Initiative 2117 (I-2117), with the prices in the first three quarterly auctions (Auction #5, #6, and #7) falling under \$30 per allowance – compared to the first four auctions in Washington where prices were above \$48 per allowance. After I-2117 was not passed by voters in November 2024, secondary market prices for Washington allowances increased, and the current vintage allowance settlement price for Auction #8, held on December 6, 2024, was \$40.26. Using the "most recent four auctions" method would still capture these depressed prices from 2024 (Auctions #7, #8, #9, #10) and would still until after the conclusion of Auction #11 in September 2025. The December 2025 Revenue Forecast is the next reasonable opportunity to reconsider using the "most recent four auctions" method of forecasting.

Therefore, to improve the accuracy of revenue estimates for the upcoming auctions, starting with the December 2024 Revenue Forecast, Ecology adjusted the methodology and inputs used for estimating the auction prices in Washington. Instead of using the previous four auctions to estimate current vintage allowance settlement price inputs for Washington's market, Ecology opted to use a forward-looking forecast methodology, based on observed conditions in the secondary market. This June 2025 Revenue Forecast follows the same methodology.

This approach used the market price for existing agreements as of June 2025 that have an execution or delivery date of December 2025 ('December 2025 contract delivery'). Trading for transfers of allowances in December 2025 are frequent (compared to trading at other times of the year), making them a reliable source of data on the value of allowances obtained by covered entities in late 2025 and early 2026 including Auction #11 in September 2025, Auction #12 in December 2025, and Auction #13 in March 2026. <sup>10</sup> By discounting the December 2025 prices back to earlier quarterly auction dates, and compounding prices for March 2026, the methodology leverages consistent market data while maintaining coherence with historical correlations between present values and settlement prices.

The methodology for estimating the price inputs from the California/Québec joint market remains the same in this forecast as it did in June and December 2024, using the average of the most recent four auctions. Without the adjusted forward-looking approach for estimating the Washington market inputs, the baseline forecast would have estimated prices starting at \$36.99, well below both the results of quarterly Auction #10 (\$58.51) and recently observed secondary market prices. In other words, the forecast would have projected a price meaningfully below the price at which allowances are—and have been—available at any time since early November when I-2117 was not passed.

<sup>&</sup>lt;sup>10</sup> Ecology used an implied discount rate for 2025 auctions and a compounding rate for the March 2026 auction to estimate auction settlement prices based on the price of allowances delivered in December 2025 that were observed on the secondary market.

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**Please note:** While the forecasting methodology for estimating the settlement prices for Washington's jurisdiction have been updated for this forecast, as described above, Ecology remains open to the possibility of further adjustments in future forecasts methodology as market conditions evolve and we collect new information, which might suggest changes for enhanced forecast accuracy and reliability.

#### Forecasting Auction Revenue

Revenue for each auction is estimated by multiplying the allowance supply available per auction by an estimated settlement price per allowance. The supply figures used represent the portion of total allowance supply that are 'state-owned' and not sold on behalf of utilities through consignment.

Consistent with previous forecasts, this forecast continues to provide low bounding and high bounding scenarios to create a range of likely revenue outcomes. The forecast estimates revenue proceeds from the allowance auctions over a five-year period. For example, the current forecasted estimates above cover fiscal years 2026-2030. This rolling five-year period will advance forward a fiscal year with each June forecast (e.g., the next June 2026 forecast will cover fiscal years 2027-2031). Each baseline forecast will provide estimated revenue from the allowance auctions, which will accrue to the State Treasury, and therefore be available for appropriation by the Legislature.

# Department of Ecology Allowance Settlement Price Calculation

The starting price for the baseline forecast, along with the low bounding and high bounding scenarios, are as follows:

- Low Bounding Scenario: Based on estimated allowance auction supply multiplied by an average of the previous four quarterly auction current vintage settlement prices in the combined California /Québec market, where historical allowance prices have been lower, with few exceptions, than those seen in the Washington market.
- **High Bounding Scenario:** Based on estimated allowance auction supply multiplied by an average of the most recent auction result (June 2025 Auction #10), and the next three projected auction settlement prices for September (#11) and December 2025 (#12), and March 2026 (#13). The June 2026 settlement price (Auction #14) is projected based on the average of the previous four auctions, including the three auctions that are using the forward-looking settlement prices.
- **Baseline Forecast:** Based on estimated allowance auction supply multiplied by an auction settlement price that is the average of the low and high scenarios.
  - o For example, the average current vintage allowance price in the combined California/Québec market used for this June 2025 forecast was \$29.32 in the low bounding scenario, and the average current vintage allowance price in the Washington market was \$58.40 in the high bounding scenario. The average of the two—\$43.86—sets estimated allowance price for the current baseline forecast. This price is then increased by an inflationary factor in successive auctions (starting with Auction #14). An inflation factor is applied to that baseline price which results in an anticipated settlement price of \$47.32 in Auction #14 in the baseline scenario.

For both the baseline forecast and bounding scenarios, Ecology calculates potential current and future vintage allowance prices and adjusts for the rate of inflation. The supply of allowances for each auction is based on the decreasing annual budget of available state-owned allowances, dividing across each of the four auctions. Future vintage allowances are offered three years prior to their vintage year, and any unsold future vintage allowances will be reintroduced to the current supply in the year that matches their vintage.

#### Rationale for Baseline Forecast Approach

Choosing an allowance price for the baseline forecast that is the average between the two market prices is a prudent approach. This dampens the effect of large shifts in auction settlement prices that Washington has experienced in the first ten auctions. The baseline forecast allowance price for both current and future vintages is the combined average of actual allowance settlement prices in the California/Québec joint market and the Washington market as of June 18, 2025.



#### Allowance Price Containment Reserve (APCR) Auctions

Ecology is required by rule<sup>11</sup> to offer an APCR auction each year before the annual compliance deadline. APCR allowances can be used to meet compliance obligations for any year, including previous years. Ecology conservatively assumes in this forecast that even though an APCR auction will be offered immediately before each annual compliance deadline, no revenue is expected to result from these required APCR auctions. Ecology did hold an APCR auction before the annual compliance deadline in 2024 that raised \$57.4 million.

In each scenario the auction floor price and APCR tier prices will increase by an inflationary factor each year. Therefore, prices will increase in all three instances year-over-year. In the high bounding scenario, Auction #16 (December 2026) would trigger an APCR auction with a \$65.45 settlement price. This is the only instance in any scenario where an APCR is triggered. **The forecast conservatively assumes no revenue from this or future APCR auctions.** While APCR auctions will be offered annually before each annual compliance event, the data in the baseline scenario suggest a wide price spread between the previous auction settlement price and the annual APCR price, so no APCR revenue is included in the baseline scenario.

However, the total number of APCR allowances remaining in the APCR account is more than 10 million allowances. If all those allowances are sold prior to the November 2027 quadrennial compliance event, it could result in roughly \$700 million of additional revenue beyond what is forecast in the baseline scenario. Changes to the APCR budget because of rulemaking for HB 1975 will impact this supply availability and timing of that availability. Those impacts are not captured in this June 2025 forecast.

#### Update on Linkage

The CCA directs Ecology to evaluate whether to link Washington's cap-and-invest market with other jurisdictions and provides specific criteria that must be met before linking. On September 23, 2024, California, Quebec, and Washington issued a second joint statement expressing mutual interest and collaboration in forming a shared carbon market through linkage.

Ecology continues to work with California and Québec to determine what a combined market might look like, what issues need to be resolved, and what timeline would make sense for all three parties. Read about the latest on <u>Cap-and-Invest program linkage</u><sup>12</sup>.

We expect allowance prices in each of these markets to converge as a final decision on program linkage nears. However, whether that convergence is closer to the price in the California/Québec joint market, or the Washington market, remains unclear. This forecast does not make assumptions about specific timing of linkage, nor the direct effects that linkage would have on settlement prices in either market. Using the baseline forecast, as an average of the two markets, is a simplified way to forecast settlement prices in a linked market.

<sup>11</sup> Chapter 173-446 WAC:(2)c

<sup>&</sup>lt;sup>12</sup> https://ecology.wa.gov/Air-Climate/Climate-Commitment-Act/Cap-and-invest/linkage

#### Current and Future Vintage Prices

Ecology will separately calculate proceeds from the future and current vintage auctions because future vintage auctions may consistently sell at a different price.

- <u>Current vintage proceeds in year X</u> =
   (Current vintage price in year X as set forth below) \* (Current vintage supply in year X)
- Future vintage proceeds in year X =

(Future vintage price in year X as set forth below) \* (Future vintage supply in year X)

#### Allowance Price Calculation

The following three tables provide the sources for the 2025 prices used in the baseline revenue forecast, and each of the bounding scenarios.

Table 1: Official (Baseline) Revenue Forecast: Average of Low and High Scenarios

Auction Name	Current Vintage Price	Future Vintage Price
CA/QC Joint Average	\$29.32	\$28.52
WA Average	\$58.40	\$30.85
Average for Current Forecast	\$43.86	\$29.68

Table 2: Low Bounding Scenario: California/Québec Price Average

Auction Name	<b>Current Vintage Price</b>	Future Vintage Price
August 2024 Joint Auction #40	\$30.24	\$29.75
November 2024 Joint Auction #41	\$31.91	\$30.16
February 2025 Joint Auction #42	\$29.27	\$28.00
May 2025 Joint Auction #43	\$25.87	\$26.15
Average for Current Forecast	\$29.32	\$28.52

Source: Summary of California Auction Settlement Prices and Results (ca.gov)

Table 3: High Bounding Scenario: Washington Price Average

Auction Name	Current Vintage Price	Future Vintage Price
June 2025 Auction #10 actual	\$58.51	\$26.21
September 2025 Auction #11 (estimate)	\$57.62	
December 2025 Auction #12 (estimate)	\$58.36	\$35.48
March 2026 Auction #13 (estimate)	\$59.10	
Average for Current Forecast	\$58.40	\$30.85

Source: Auctions and market website - Washington State Department of Ecology.

Estimates for 2025-26 auctions based on secondary market futures contracts as of 6/18/25.

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#### Escalating the Forecast Price, 5% plus Rate of Inflation

The allowance price floor, price ceiling unit price, and APCR tiers all increase at 5% plus inflation, and this is called the escalation factor. The forecast escalates each allowance price scenario from Table 1 through Table 3 using the same escalation factor. Because historical inflation—and future inflation forecasts—change for each calendar year (Table 4), the escalation factor is different for each calendar year.

The escalation factor is applied to the allowance prices within each forecast on a quarterly basis. Allowance prices are escalated every three months for current vintage auctions, and every six months for the future vintage auctions. For example the 2027 rate of inflation is 2.2%, so the escalation factor is 107.2%: 105% plus a 2.2% projected inflation by the May 2025 S&P Global forecast for CPI-U. <sup>13</sup> Each quarter's current vintage allowance price is increased at an escalation rate such that the December 2027 current vintage allowance price is 7.2% (107.2% minus 100%) higher than the December 2026 current vintage allowance price. <sup>14</sup>

The current vintage auction is held once per quarter, so we will average four auctions each year. The future auction is held twice per year, so we will average the most-recent two future auction prices.

- Current vintage price in year X = (scenario initial price) \* (escalation factor) ^ (# of events/year)
- Future vintage price in year X = (scenario initial price) \* (escalation factor) ^ (# of events/year)

Ecology uses the prior year's CPI forecast in calculating the next year's escalation factor. 15

Table 4: Annual Inflation Factor by Calendar Year

Calendar Year	Annual U.S. Consumer Price Index
2025	2.6%
2026	2.9%
2027	2.2%
2028	2.0%
2029	1.9%
2030	2.1%

This can be cross checked by multiplying each quarterly formula four times, i.e., raising it to the fourth power:

((escalation factor)^(1/4))^4

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<sup>&</sup>lt;sup>13</sup> May 2025 S&P Global baseline 10-year forecast shared by the Washington State Economic Revenue Forecast Council.

<sup>&</sup>lt;sup>14</sup> Because of compounding, the escalation per quarter is not equal to one quarter of the annual escalation factor (in this example, the quarterly allowance escalation factor is not one fourth of 107.2%). Instead, the compounding rate per quarter is:

<sup>(1+</sup> annual rate + 5%)^(1/4)

<sup>= (</sup>escalation factor)^(1/4)

<sup>=</sup>  $((escalation factor)^{4/4})$ 

<sup>= (</sup>escalation factor)^(1)

<sup>=</sup> escalation factor

<sup>&</sup>lt;sup>15</sup> The cap-and-invest program uses actual CPI-U inflation measure, so uses the most-recently available CPI-U in setting the new auction price levels. For example, in setting the 2024 auction price levels before the 2024 auctions, the most-recent CPI-U information was from 2023.

The cap-and-invest program creates an 'allowance budget' equal to the emissions cap for each year. The CCA directs Ecology to auction allowances from the current 'budget' as well as from the budgets of future years. Below is a high-level summary of how we will calculate the current vintage supply and future vintage supply to be offered at auctions for each fiscal year.

- Current Vintage Supply = Total Allowance Budget Minus:
  - APCR, Emissions Containment Reserve, and Voluntary Renewable Electricity Reserve set asides (a combined 7.33% of each yearly budget).
  - Allowance allocation to Emissions Intensive Trade Exposed (EITE) industrial market participants, electricity, and natural gas (roughly 55% of yearly budget in 2023).
  - Offsets under the cap (less than 3% reduction in allowance supply that first occurs in calendar year 2025).
  - Prior sales of future vintage allowances (4.42 million allowances from 2027 vintage were offered in 2024, 10% of 2027 supply. Only 3.54 million of those allowances sold. The remainder of unsold allowances will be next offered as current vintage allowances in 2027.)
- <u>Future Vintage Supply</u> = Total Allowance Budget from three years in the future \* 10%<sup>16</sup>.

For a more detailed breakdown of the amounts and assumptions behind the allowance budgets used in this forecast, please see *Appendix A*.

<sup>&</sup>lt;sup>16</sup> Per rule, Chapter 173-446-365 WAC, Ecology will hold two auctions of future vintage allowances each year, including in each auction 5% of the annual allowance budget of the vintage year 3 years in the future. For example, in 2023, 10% of vintage 2026 allowances were offered for sale at advance auction of future vintage allowances.



## June 2025 Baseline Forecast and Bounding Scenarios

These tables provide revenue estimates for the baseline forecast and bounding scenarios for fiscal years 2025-2030. The state fiscal year runs from July 1 through the following June 30.

Table 5: Official (Baseline) Revenue Forecast: Midpoint of CA/QC and WA Price Average

Fiscal Year	Forecasted Proceeds
2025	\$1,038,620,138
2026	\$1,036,958,000
2027	\$707,746,000
2028	\$548,246,000
2029	\$388,559,000
2030	\$317,465,000
Grand Total (FY25 to FY30)	\$4,037,723,138

Table 6: Low Bounding Scenario: California/ Québec Price Average

Fiscal Year	Forecasted Proceeds
2025	\$1,038,620,098
2026	\$643,554,000
2027	\$530,376,000
2028	\$417,153,000
2029	\$305,441,000
2030	\$255,902,000
Grand Total (FY25 to FY30)	\$3,191,057,098

Table 7: High Bounding Scenario: Washington Price Average

Fiscal Year	Forecasted Proceeds
2025	\$1,038,620,138
2026	\$1,085,478,000
2027	\$880,584,000
2028	\$676,348,000
2029	\$470,638,000
2030	\$396,730,000
Grand Total (FY25 to FY30)	\$4,695,535,138

For a more detailed breakdown of each fiscal year for the baseline forecast and bounding scenarios, see *Appendix B*.



## Appendix A – Allowance Supply

The following tables provide a breakdown of the assumptions behind the allowance totals necessary to calculate auction supply by calendar year. These tables are shown from calendar year (CY) 2023 to 2030, or the first two compliance periods of the program. Because future vintage auction supply relies on the allowance budget three years in the future, Table 8 extends to 2033.

Table 8: Total Allowance Supply

CY	Total Allowances (MT CO2e)
2023	63,288,565
2024	58,524,909
2025	53,761,254
2026	48,997,598
2027	44,459,735
2028	39,679,085
2029	34,898,434
2030	30,117,784
2031	29,693,713
2032	28,449,643
2033	27,205,573

Source: Total program allowance budgets (WAC 173-446-210) and program applicability (WAC 173-446-030).

Table 9: Allowance Price Containment Reserve (APCR) Allowances

CY	Allowances
2023	3,164,428
2024	2,926,245
2025	2,688,063
2026	2,449,880
2027	2,222,987
2028	1,983,954
2029	1,744,922
2030	1,505,889

**Source**: Ecology placed 5% of the total allowance supply (Table 8) into the APCR at the beginning of the program in January 2023. These allowances are available at APCR auctions. For APCR auctions triggered by 2025 quarterly auction prices, the trigger price for the APCR is \$60.43 (WAC 173-446-370).

**APCR Assumption:** With a single exception in the High Bounding scenario, the APCR trigger price is not met by forecasted quarterly auction current vintage allowance settlement prices. Two APCR auctions were triggered in 2023, and 6,054,000 allowances sold, and one APCR auction was held prior to the 2024 compliance deadline, selling 1,022,000 APCR allowances\*.\*Refer to the APCR auction supply guidance through 2026 (govdelivery.com).



Table 10: Emissions Containment Reserve (ECR) Allowances

CY	Allowances
2023	1,265,771
2024	1,170,498
2025	1,075,225
2026	979,952
2027	-
2028	-
2029	-
2030	-

**Source**: Ecology reserved 2% of the total allowance supply (Table 8) for the first compliance period—2023 through 2026—into the emissions containment reserve (ECR) consistent with WAC 173-446-375. Ecology did not place any allowances from the second compliance period into the ECR.

**ECR Assumption:** ECR allowances are unavailable for auction unless certain conditions are met—the expansion of existing facilities, or entry of new covered participants in the program. For purposes of this forecast, Ecology conservatively assumes the conditions *will not be met* and therefore assumes ECR auctions will not occur.

Table 11: Voluntary Renewable Energy (VRE) Account Allowances

CY	Allowances
2023	208,852
2024	193,132
2025	177,412
2026	161,692
2027	-
2028	-
2029	-
2030	-

**Source:** Ecology reserved 0.33% of the total allowance supply (Table 8) for the first compliance period—2023 through 2026—in the Voluntary Renewable Energy account (VRE) consistent with WAC 173-446-230(3). Ecology did not place any allowances from the second compliance period into the VRE. The VRE is intended to retire allowances in proportion to voluntary renewable energy credits purchased over and above existing requirements.

Rationale for excluding from auction total: Because VRE allowances will be directly retired rather than sold at auction, the VRE is deducted from the volume of allowances estimated for auction. WAC 173-446-230(3).



Table 12: Emissions Intensive, Trade Exposed (EITE) Allowances

CY	Allowances
2023	9,193,458
2024	9,330,137
2025	9,106,894
2026	9,218,516
2027	8,941,960
2028	8,941,960
2029	8,941,960
2030	8,941,960

**Source:** Initial EITE allocation for 2023 EITE production (Allowance Allocation to Emissions-Intensive, Trade-Exposed Industries for the First Compliance Period).

Assumptions: EITE industrial allowance allocation is intended to protect against emissions leakage, or the relocation of Washington State businesses to other locations without carbon regulations. Washington State allocates allowances to EITEs primarily through an allocation that scales with production, i.e., if production goes up then allocation goes up, and if production goes down then allocation declines as well. CY 2024 allocation reflects a revision to the estimated production in 2023. 2025 value reflects the latest allocation, as of 10/24/24, including "true-up". The 2026 value is based on the average of 2024 and 2025. Starting with the second compliance period, in 2027, EITE allocation is reduced by 3% consistent with WAC 173-446-220(2)(a).



Table 13: Electric Utility Allowances

CY	Allowances
2023	17,489,792
2024	16,395,535
2025	15,287,526
2026	10,302,447
2027	13,045,851
2028	12,657,497
2029	12,272,327
2030	9,137,887

Source: Allowance Allocation to Electric Utilities for the First Compliance Period (Revised).

**Assumption:** Electric Utilities are allocated allowances consistent with WAC 173-446-230. The allowance allocation in Table 13 equals allowance allocation transferred for 2023, 2024, and 2025 allocation, and forecasted allowance allocation for 2026. Because there are no forecasts for 2027 allocation at this time, and no set reduction schedule for electric utilities, allocation projections may be substantially adjusted in future years.

**Note**: This forecast assumes an additional 10,874,898 allowances are allocated to electric utilities in 2027 through 2030 compared to the <u>December 2024 forecast</u>, which results in a net decrease in the number of state-owned allowances available for auction (Table 17).



Table 14: Natural Gas Allowances

CY	Allowances
2023	8,059,631
2024	7,452,993
2025	6,846,354
2026	6,239,715
2027	5,633,076
2028	5,026,437
2029	4,419,799
2030	3,813,160

Source: Allowance Allocation to Natural Gas Utilities.

**Assumption:** The Climate Commitment Act requires that the Department of Ecology provide allowances at no cost to eligible natural gas utilities. Natural gas allowance allocation is calculated using a 2015-2019 'baseline' of natural gas emissions. The utilities were allocated 93% of the baseline in 2023 (7% less than the full baseline), with allocation declining by an additional 7% each year thereafter. WAC 173-446-240.

Table 14A: Natural Gas Allowances Held for Compliance

CY	Allowances
2023	1,863,232
2024	2,235,894
2025	1,711,589
2026	1,247,943
2027	844,962
2028	502,644
2029	220,990
2030	-

**Assumption:** Natural Gas utilities have required minimum consignment for each year, starting with 65% of allocation in 2023, 70% in 2024, 75% in 2025 and so on until 100% consignment in 2030. They may choose at any time to consign up to 100% of allowances to auction (WAC 173-446-300(2)(b)(ii)(A)), though Ecology's forecast assumes that all allowances not required to be sent to auction are retained for compliance. The total value held for compliance is assumed to be Allocation minus required consignment (Table 14 minus Table 14B).



Table 14B: Natural Gas Allowances Consigned (sold) at Auction

CY	Allowances
2023	6,196,399
2024	5,217,099
2025	5,134,765
2026	4,991,772
2027	4,788,114
2028	4,523,793
2029	4,198,809
2030	3,813,160

**Assumption:** Natural Gas utilities have required minimum consignment for each year, starting with 65% of allocation (see Table 14) in 2023, 70% in 2024, 75% in 2025, and so on. They may choose at any time to consign up to 100% of allowances to auction (WAC 173-446-300(2)(b)(ii)(A)). CY 2023 and 2024 include actual consignment totals.



Table 15: Offset Usage

CY	Offset Usage
2023	-
2024	-
2025	26,280
2026	855,280
2027	762,784
2028	776,553
2029	607,468
2030	482,870

**Assumption:** Offsets are important to calculate auction allowance supply because offsets are "under the cap", i.e., offsets used to meet compliance obligations.

Because offset usage is under the cap, the allowance budget is reduced by the number of offsets used in each compliance event for two years' prior emissions obligation. E.g., entities used 26,280 offsets for compliance at first annual compliance event on 11/1/24. That number is subtracted from the 2025 allowance budget, reducing the state-owned allowances eligible to be auctioned by 26,280. At the 2025 compliance event, actual offset usage will be known, and the 2026 budget will be reduced by that amount.

The offset totals are 3% of the emissions budget that represents sectors assumed to want to purchase offsets. This is based on the total program allowance budget (Table 8), reduced by the following allowance accounts and through no cost allowance allocation:

- The APCR (Table 9), at 5% of the annual allowance budget for each calendar year through 2030.
- The Emissions Containment Reserve (Table 10) is conservatively assumed to be withheld because entities
  do not trigger ECR allowance allocation or ECR auctions. Under this assumption, ECR allowances do not
  represent emissions obligations.
- The VRE account (Table 11) is assumed to be used directly for compliance and does not represent emissions obligations within the program.
- The industrial EITE sector (Table 12) is assumed to receive allowance allocation equal to emissions
  obligation for the first four years of the program and does not use offsets to meet its compliance
  obligations.
- The electric sector (Table 13) is assumed to receive allowance allocation equal to its compliance obligation and does not use offsets to meet its compliance obligations.

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Table 15A: Total Current Vintage After Non-Consigned Free Allowances, Reserves, and Direct Allocation

CY	Allowances
2023	30,103,032
2024	26,273,468
2025	23,714,545
2026	19,737,407
2027	15,841,001
2028	11,625,120
2029	8,228,391
2030	7,520,268

**Note**: Table 15A represents the supply of allowances available for auction starting with total annual budgets defined in rule and then subtracting allowances deposited into reserve accounts, allowances freely allocated to EITEs and Electricity Utilities and held for compliance by natural gas utilities. The values in Table 15 are subtracted from Table 15A to determine total allowances available for current vintage auctions each year (Table 15B). The drop in 2026 and later years is partially the result of the sale of future vintage allowances in earlier years.

Table 15B: Allowances to Current Vintage Auction, Net of Offsets Under the Cap

CY	Allowances
2023	30,103,032
2024	26,273,468
2025	23,688,265
2026	18,882,127
2027	15,078,217
2028	10,848,567
2029	7,620,923
2030	7,037,398

**Note**: Table 15B is the difference between Table 15A and Table 15, representing the total allowances available for current vintage auction each year, after accounting for the actual or anticipated use of offsets, which are "under the cap," starting in 2025.



Table 16: State-Owned Future Vintage Auctioned Allowances

CY	Allowances
2023	4,899,760
2024*	3,539,832
2025	3,967,908
2026	3,489,843
2027	3,011,778
2028	2,969,371
2029	2,844,964
2030	2,720,557

Source: Ecology auctions 10% of the total allowance budget (Table 8) each year per WAC 173-446-365.

**Assumptions:** Future vintage allowances are taken from the allowance budget three years in the future. E.g., 4,899,760 allowances are 10% of the 2026 budget (48,997,598 allowances) not 10% of the 2023 budget (63,288,565 allowances).

\*For CY 2024, 1,317,000 of the possible 2,200,000 vintage 2027 allowances offered were sold in Auction 6. The unsold 2027 vintage allowances are added to the CY2027 current vintage allowance supply (Table 17) to be offered next in 2027. The rest of the tables assume all future vintage allowances offered will be sold.

Table 17: State-Owned Current Vintage Auctioned Allowances

CY	Allowances
2023	23,870,129
2024	21,092,871
2025	18,553,500
2026	13,890,355
2027	10,290,103
2028	6,324,774
2029	3,422,114
2030	3,224,238

**Assumption:** These allowance totals are equal to the total allowance budget (Table 8) reduced by all the other allowance totals in Tables 9 through 15B. Starting with calendar year 2026, the allowance totals are further reduced by future vintage auctions of allowances (Table 16) from the 2026 allowance budget that occurred in calendar year 2023. See the assumptions in Table 16.

**Note**: Current vintage allowances forecasted to be sold in CY 2026 through CY 2030 decreased in each year compared to the previous forecast, for an overall net decrease of 9,215,413 state-owned allowances, compared to the December 2024 forecast.



## Appendix B – Detailed Breakdown by Fiscal Year of the Baseline Forecast and Bounding Scenarios

The following tables are an event-by-event breakdown of each fiscal year for each of the three scenarios. The dates listed for each year are subject to change and only made official with each auction notice, based on the December release of a list of anticipated auction dates for the following calendar year events. While current auctions will be held quarterly, specific dates are included to provide some indication of when in the fiscal year those events occur and when funds would be received by the state (approximately 4 weeks post-auction). Ecology offers the entire supply of current vintage allowances across four quarterly auctions in a calendar year.

The first column contains abbreviations for individual auction event types. These are:

- A #\_: This is an abbreviation for a regularly scheduled quarterly auction. If the auction has allowances in the future vintage column, then it is an auction offering both current and future vintage supply.

  Quarterly Auction #1 and #2 occurred in FY 2023 and are not included below.
- APCR #\_: These are Allowance Price Containment Reserve Auctions, either triggered by preceding quarterly auctions or held prior to the annual compliance deadline.
- APCR XYY: APCR Auctions offered prior to the annual (YY) compliance deadline
- ECR: Emissions Containment Reserve auctions. Ecology assumes that no ECR auctions will be held for purposes of this forecast. If this changes in future forecasts, ECR allowance totals would be included in the 'Current Vintage' column.

## Baseline Forecast: Average of Low and High Bounding Scenarios

Fiscal Year 2025 Detailed View (Baseline Forecast)

		Current Vintage/	Future		Current / APCR	Future / APCR	
Event Name	Fiscal Year 2025	Tier 1 Allowances	Vintage Allowances	APCR Allowances	Tier 1 Price	Tier 2 Price	Auction Proceeds
APCR	8/7/2024	7 monances	7 mo Wances	7 mowanices	\$56.16	\$72.15	-
A #7	9/4/2024	5,260,000			\$29.88	-	\$157,168,800
APCR #3	10/2/2024	1,022,000			\$56.16	\$72.15	\$57,395,520
ECR	September					-	-
APCR	11/6/2024				\$56.16	\$72.15	-
A #8	12/4/2024	5,312,871	2,222,832		\$40.26	\$26.00	\$271,689,818
APCR	2/19/2025				\$56.16	\$72.15	
A #9	3/5/2025	4,600,000			\$50.00		\$230,000,000
APCR	5/21/2025				\$60.43	\$77.63	-
A #10	6/4/2025	4,600,000	2,000,000		\$58.51	\$26.61	\$322,366,000
Total		20,871,621	4,206,786	-			\$1,038,620,138



Fiscal Year 2026 Detailed View (Baseline Forecast)

Event	Fiscal Year	Current Vintage/ Tier 1	Future Vintage	APCR	Current / APCR Tier 1	Future / APCR Tier 2	
Name	2026	Allowances	Allowances	Allowances	Price	Price	<b>Auction Proceeds</b>
APCR	8/6/2025		-		\$60.43	\$77.63	-
A #11	9/3/2025	4,600,000	-		\$57.62	-	\$265,052,000
ECR	September	-	-		\$57.62	-	-
APCR X25	10/1/2025	-	-		\$60.43	\$77.63	-
APCR	11/12/2025	-	-		\$60.43	\$77.63	-
A #12	12/3/2025	4,753,500	1,945,905		\$58.36	\$35.48	\$346,455,000
APCR	2/18/2026	-	-		\$60.43	\$83.76	-
A #13	3/4/2026	3,472,588	-		\$59.10	-	\$205,230,000
APCR	5/20/2026	-	-		\$65.20	\$83.76	-
A #14	6/3/2026	3,472,589	1,744,921		\$47.32	\$32.02	\$220,221,000
Total		16,298,677	3,690,826	-			\$1,036,958,000

#### Fiscal Year 2027 Detailed View (Baseline Forecast)

Event	Fiscal Year	Current Vintage/ Tier 1	Future Vintage	APCR	Current / APCR Tier 1	Future / APCR Tier 2	Auction
Name	2027	Allowances	Allowances	Allowances	Price	Price	Proceeds
APCR	8/5/2026				\$65.20	\$83.76	-
A #15	9/2/2026	3,472,589	-		\$48.23	-	\$167,483,000
ECR	September	-	-		\$48.23	-	-
APCR X26	9/30/2026	-	-		\$65.20	\$83.76	\$0
APCR	11/18/2026	-	-		\$65.20	\$83.76	-
A #16	12/2/2026	3,472,589	1,744,922		\$49.16	\$33.27	\$228,766,000
APCR	2/17/2027	-	-		\$65.20	\$83.76	-
A #17	3/3/2027	2,572,525	-		\$50.02	-	\$128,678,000
APCR	5/19/2027	-	-		\$69.89	\$89.79	-
A #18	6/2/2027	2,572,525	1,505,889		\$50.90	\$34.45	\$182,819,000
Total		12,090,228	3,250,811	-			\$707,746,000

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## Fiscal Year 2028 Detailed View (Baseline Forecast)

		Current Vintage/	Future		Current / APCR	Future / APCR	
Event	Fiscal Year	Tier 1	Vintage	APCR	Tier 1	Tier 2	Auction
Name	2028	Allowances	Allowances	Allowances	Price	Price	Proceeds
APCR	8/4/2027				\$69.89	\$89.79	-
A #19	9/1/2027	2,572,526			\$51.79	-	\$133,231,000
APCR X27	9/29/2027				\$69.89	\$89.79	-
Price Ceiling Sale	10/27/2027				\$80.00	-	-
APCR	11/10/2027				\$69.89	\$89.79	-
A #20	12/1/2027	2,572,526	1,505,889		\$52.70	\$35.67	\$189,287,000
APCR	2/16/2028				\$69.89	\$89.79	-
A #21	3/1/2028	1,581,193			\$53.60	-	\$84,752,000
APCR	5/24/2028				\$74.78	\$96.08	-
A #22	6/7/2028	1,581,193	1,484,685		\$54.51	\$36.90	\$140,976,000
Total		8,307,438	2,990,574	-			\$548,246,000

## Fiscal Year 2029 Detailed View (Baseline Forecast)

Event Name	Fiscal Year 2029	Current Vintage/ Tier 1 Allowances	Future Vintage Allowances	APCR Allowances	Current / APCR Tier 1 Price	Future / APCR Tier 2 Price	Auction Proceeds
APCR	8/9/2028				\$74.78	\$96.08	-
A #23	9/6/2028	1,581,194			\$55.44	-	\$87,661,000
APCR X28	10/25/2028				\$74.78	\$96.08	-
APCR	11/15/2028				\$74.78	\$96.08	-
A #24	12/6/2028	1,581,194	1,484,686		\$56.39	\$38.17	\$145,834,000
APCR	2/21/2029				\$74.78	\$96.08	-
A #25	3/7/2029	855,528			\$57.34	\$38.81	\$49,056,000
APCR	5/23/2029				\$79.94	\$102.71	-
A #26	6/6/2029	855,528	1,422,482		\$58.30	\$39.46	\$106,008,000
Total		4,873,444	2,907,168	-			\$388,559,000

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Fiscal Year 2030 Detailed View (Baseline Forecast)

Event Name	Fiscal Year 2030	Current Vintage/ Tier 1 Allowances	Future Vintage Allowances	APCR Allowances	Current / APCR Tier 1 Price	Future / APCR Tier 2 Price	Auction Proceeds
APCR	8/1/2029		, and trainees		\$79.94	\$102.71	-
A #27	9/5/2029	855,529			\$59.29	-	\$50,724,000
APCR X29	10/3/2029				\$79.94	\$102.71	\$0
APCR	11/14/2029				\$79.94	\$102.71	\$0
A #28	12/5/2029	855,529	1,422,482		\$60.30	\$40.82	\$109,654,000
APCR	2/20/2030				\$79.94	\$102.71	\$0
A #29	3/6/2030	806,060			\$61.31	\$41.51	\$49,420,000
APCR	5/22/2030				\$85.46	\$109.80	\$0
A #30	6/5/2030	806,060	1,360,278		\$62.34	\$42.21	\$107,667,000
Total		3,323,177	2,782,760	-			\$317,465,000

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## Low Bounding Scenario: California / Québec Price

Fiscal Year 2025 Detailed View (Low Scenario)

		Current Vintage/	Future		Current / APCR	Future / APCR	
Event	Fiscal Year	Tier 1	Vintage	APCR	Tier 1	Tier 2	Auction
Name	2025	Allowances	Allowances	Allowances	Price	Price	Proceeds
APCR	8/7/2024				\$56.16	\$72.15	-
A #7	9/4/2024	5,260,000			\$29.88	-	\$157,169,000
APCR #3	10/2/2024	1,022,000			\$56.16	\$72.15	\$57,396,000
ECR	September					-	-
APCR	11/6/2024				\$56.16	\$72.15	-
A #8	12/4/2024	5,312,871	2,222,832		\$40.26	\$26.00	\$271,690,000
APCR	2/19/2025				\$56.16	\$72.15	-
A #9	3/5/2025	4,600,000			\$35.86	-	\$166,332,000
APCR	5/21/2025				\$60.43	\$77.63	-
A #10	6/4/2025	4,600,000	2,000,000		\$36.52	\$36.12	\$241,054,000
Total		20,871,621	4,206,786	-			\$893,641,000

## Fiscal Year 2026 Detailed View (Low Scenario)

Event Name	Fiscal Year 2026	Current Vintage/ Tier 1 Allowances	Future Vintage Allowances	APCR Allowances	Current / APCR Tier 1 Price	Future / APCR Tier 2 Price	Auction Proceeds
APCR	8/6/2025		-		\$60.43	\$77.63	-
A #11	9/3/2025	4,600,000	-		\$31.64	\$0.00	\$145,544,000
ECR	September	-	-		\$31.64	\$0.00	-
APCR X25	10/1/2025	-	-		\$60.43	\$77.63	-
APCR	11/12/2025	-	-		\$60.43	\$77.63	-
A #12	12/3/2025	4,753,500	1,945,905		\$32.22	\$30.77	\$213,033,000
APCR	2/18/2026	-	-		\$60.43	\$83.76	-
A #13	3/4/2026	3,472,588	-		\$32.84	\$0.00	\$114,040,000
APCR	5/20/2026	-	-		\$65.20	\$83.76	-
A #14	6/3/2026	3,472,589	1,744,921		\$33.47	\$31.36	\$170,948,000
Total		16,298,677	3,690,826	-			\$643,565,000

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Fiscal Year 2027 Detailed View (Low Scenario)

Event Name	Fiscal Year 2027	Current Vintage/ Tier 1 Allowances	Future Vintage Allowances	APCR Allowances	Current / APCR Tier 1 Price	Future / APCR Tier 2 Price	Auction Proceeds
APCR	8/5/2026				\$65.20	\$83.76	-
A #15	9/2/2026	3,472,589	-		\$34.11	\$0.00	\$118,450,000
ECR	September	-	-		\$34.11	\$0.00	-
APCR X26	9/30/2026	-	-		\$65.20	\$83.76	-
APCR	11/18/2026	-	-		\$65.20	\$83.76	-
A #16	12/2/2026	3,472,589	1,744,922		\$34.76	\$32.58	\$177,557,000
APCR	2/17/2027	-	-		\$65.20	\$83.76	-
A #17	3/3/2027	2,572,525	-		\$35.37	\$0.00	\$90,990,000
APCR	5/19/2027	-	-		\$69.89	\$89.79	-
A #18	6/2/2027	2,572,525	1,505,889		\$35.99	\$33.73	\$143,379,000
Total		12,090,228	3,250,811	-			\$530,376,000

## Fiscal Year 2028 Detailed View (Low Scenario)

Event Name	Fiscal Year 2028	Current Vintage/ Tier 1 Allowances	Future Vintage Allowances	APCR Allowances	Current / APCR Tier 1 Price	Future / APCR Tier 2 Price	Auction Proceeds
APCR	8/4/2027				\$69.89	\$89.79	-
A #19	9/1/2027	2,572,526			\$36.62	\$0.00	\$94,206,000
APCR X27	9/29/2027				\$69.89	\$89.79	-
Price Ceiling Sale	10/27/2027				\$80.00	\$0.00	-
APCR	11/10/2027				\$69.89	\$89.79	-
A #20	12/1/2027	2,572,526	1,505,889		\$37.26	\$34.92	\$148,438,000
APCR	2/16/2028				\$69.89	\$89.79	-
A #21	3/1/2028	1,581,193			\$37.90	\$0.00	\$59,927,000
APCR	5/24/2028				\$74.78	\$96.08	-
A #22	6/7/2028	1,581,193	1,484,685		\$38.55	\$36.12	\$114,582,000
Total		8,307,438	2,990,574	-			\$417,153,000

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Fiscal Year 2029 Detailed View (Low Scenario)

Event Name	Fiscal Year 2029	Current Vintage/ Tier 1 Allowances	Future Vintage Allowances	APCR Allowances	Current / APCR Tier 1 Price	Future / APCR Tier 2 Price	Auction Proceeds
APCR	8/9/2028				\$74.78	\$96.08	-
A #23	9/6/2028	1,581,194			\$39.21	\$0.00	\$61,999,000
APCR X28	10/25/2028				\$74.78	\$96.08	
APCR	11/15/2028				\$74.78	\$96.08	-
A #24	12/6/2028	1,581,194	1,484,686		\$39.88	\$37.36	\$118,526,000
APCR	2/21/2029				\$74.78	\$96.08	-
A #25	3/7/2029	855,528			\$40.55	\$37.99	\$34,692,000
APCR	5/23/2029				\$79.94	\$102.71	-
A #26	6/6/2029	855,528	1,422,482		\$41.23	\$38.63	\$90,224,000
Total		4,873,444	2,907,168	-			\$305,441,000

## Fiscal Year 2030 Detailed View (Low Scenario)

Event Name	Fiscal Year 2030	Current Vintage/ Tier 1 Allowances	Future Vintage Allowances	APCR Allowances	Current / APCR Tier 1 Price	Future / APCR Tier 2 Price	Auction Proceeds
APCR	8/1/2029				\$79.94	\$102.71	-
A #27	9/5/2029	855,529			\$41.93	\$0.00	\$35,872,000
APCR X29	10/3/2029				\$79.94	\$102.71	-
APCR	11/14/2029				\$79.94	\$102.71	-
A #28	12/5/2029	855,529	1,422,482		\$42.65	\$39.96	\$93,331,000
APCR	2/20/2030				\$79.94	\$102.71	-
A #29	3/6/2030	806,060			\$43.37	\$40.63	\$34,959,000
APCR	5/22/2030				\$85.46	\$109.80	-
A #30	6/5/2030	806,060	1,360,278		\$44.10	\$41.31	\$91,740,000
Total		3,323,177	2,782,760	-			\$255,902,000

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## High Bounding Scenario: Average and Estimates of Washington's Prices

Fiscal Year 2025 Detailed View (High Scenario)

Front	Figgal Vacu	Current Vintage/	Future	ADCD	Current / APCR	Future / APCR	Austina
Event Name	Fiscal Year 2025	Tier 1 Allowances	Vintage Allowances	APCR Allowances	Tier 1 Price	Tier 2 Price	Auction Proceeds
APCR	8/7/2024	Allowalices	Allowalices	Allowalices	\$56.16	\$72.15	Proceeds
					-	\$72.13	
A #7	9/4/2024	5,260,000			\$29.88	-	\$157,169,000
APCR #3	10/2/2024	1,022,000			\$56.16	\$72.15	\$57,396,000
ECR	September						-
APCR	11/6/2024				\$56.16	\$72.15	-
A #8	12/4/2024	5,312,871	2,222,832		\$40.26	\$26.00	\$271,690,000
APCR	2/19/2025				\$56.16	\$72.15	-
A #9	3/5/2025	4,600,000			\$49.45	-	\$229,368,000
APCR	5/21/2025				\$60.43	\$77.63	-
A #10	6/4/2025	4,600,000	2,000,000		\$49.90	\$45.97	\$322,657,000
Total		20,871,621	4,206,786	-			\$1,038,280,000

## Fiscal Year 2026 Detailed View (High Scenario)

Event	Fiscal Year 2026	Current Vintage/ Tier 1 Allowances	Future Vintage Allowances	APCR Allowances	Current / APCR Tier 1 Price	Future / APCR Tier 2 Price	Auction Proceeds
Name APCR	8/6/2025	Allowances	Allowances	Allowances	\$60.43	\$77.63	Proceeds
		4 600 000				-	¢265 052 000
A #11	9/3/2025	4,600,000	-		\$57.62	\$0.00	\$265,052,000
ECR	September	-	-		\$57.62	\$0.00	-
APCR X25	10/1/2025	-	-		\$60.43	\$77.63	-
APCR	11/12/2025	-	-		\$60.43	\$77.63	-
A #12	12/3/2025	4,753,500	1,945,905		\$58.36	\$35.48	\$346,455,000
APCR	2/18/2026	-	-		\$60.43	\$83.76	-
A #13	3/4/2026	3,472,588	-		\$59.10	\$0.00	\$205,230,000
APCR	5/20/2026	-	-		\$65.20	\$83.76	-
A #14	6/3/2026	3,472,589	1,744,921		\$63.01	\$33.29	\$276,896,000
Total		16,298,677	3,690,826	-			\$1,093,633,000

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## Fiscal Year 2027 Detailed View (High Scenario)

		Current Vintage/	Future		Current / APCR	Future / APCR	
Event	Fiscal Year	Tier 1	Vintage	APCR	Tier 1	Tier 2	Auction
Name	2027	Allowances	Allowances	Allowances	Price	Price	Proceeds
APCR	8/5/2026				\$65.20	\$83.76	-
A #15	9/2/2026	3,472,589	-		\$64.22	\$0.00	\$223,010,000
ECR	September	-	-		\$61.83	\$0.00	-
APCR X26	9/30/2026	-	-		\$65.20	\$83.76	-
APCR	11/18/2026	-	-		\$65.20	\$83.76	-
A #16 <sup>17</sup>	12/2/2026	3,472,589	1,744,922		\$65.45	\$34.58	\$287,620,000
APCR	2/17/2027	-	-		\$65.20	\$83.76	-
A #17	3/3/2027	2,572,525	-		\$66.60	\$0.00	\$171,330,000
APCR	5/19/2027	-	-		\$69.89	\$89.79	-
A #18	6/2/2027	2,572,525	1,505,889		\$67.77	\$35.80	\$228,251,000
Total		12,090,228	3,250,811	-			\$910,211,000

#### Fiscal Year 2028 Detailed View (High Scenario)

	et a al Maria	Current Vintage/	Future	4000	Current / APCR	Future / APCR	
Event	Fiscal Year	Tier 1	Vintage	APCR	Tier 1	Tier 2	Auction
Name	2028	Allowances	Allowances	Allowances	Price	Price	Proceeds
APCR	8/4/2027				\$69.89	\$89.79	-
A #19	9/1/2027	3,041,833			\$68.96	\$0.00	\$177,401,000
APCR X27	9/29/2027				\$69.89	\$89.79	-
Price Ceiling	10/27/2027						
Sale					\$109.91	\$0.00	-
APCR	11/10/2027				\$69.89	\$89.79	-
A #20	12/1/2027	3,041,833	1,505,889		\$70.17	\$37.07	\$236,337,000
APCR	2/16/2028				\$69.89	\$89.79	-
A #21	3/1/2028	2,223,883			\$71.37	\$0.00	\$112,850,000
APCR	5/24/2028				\$74.78	\$96.08	-
A #22	6/7/2028	2,223,883	1,484,685		\$72.59	\$38.35	\$171,716,000
Total		10,531,432	2,990,574	-			\$698,304,000

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 $<sup>^{17}</sup>$  Auction #16 in the High Bounding Scenario is the only instance in any scenario where an APCR is triggered. The forecast conservatively assumes no revenue from this or future APCR auctions.



Fiscal Year 2029 Detailed View (High Scenario)

Event	Fiscal Year	Current Vintage/ Tier 1	Future Vintage	APCR	Current / APCR Tier 1	Future / APCR Tier 2	Auction
Name	2029	Allowances	Allowances	Allowances	Price	Price	Proceeds
APCR	8/9/2028				\$74.78	\$96.08	-
A #23	9/6/2028	2,223,883			\$73.83	\$0.00	\$116,740,000
APCR X28	10/25/2028				\$74.78	\$96.08	-
APCR	11/15/2028				\$74.78	\$96.08	-
A #24	12/6/2028	2,223,883	1,484,686		\$75.09	\$39.67	\$177,629,000
APCR	2/21/2029				\$74.78	\$96.08	-
A #25	3/7/2029	1,686,232			\$76.35	\$40.34	\$65,320,000
APCR	5/23/2029				\$79.94	\$102.71	-
A #26	6/6/2029	1,686,233	1,422,482		\$77.63	\$41.02	\$124,765,000
Total		7,820,231	2,907,168	-			\$484,454,000

## Fiscal Year 2030 Detailed View (High Scenario)

Event	Fiscal Year	Current Vintage/ Tier 1	Future Vintage	APCR	Current / APCR Tier 1	Future / APCR Tier 2	Auction
Name	2030	Allowances	Allowances	Allowances	Price	Price	Proceeds
APCR	8/1/2029				\$79.94	\$102.71	-
A #27	9/5/2029	855,529			\$77.65	\$0.00	\$66,432,000
APCR X29	10/3/2029				\$79.94	\$0.00	-
APCR	11/14/2029				\$79.94	\$0.00	-
A #28	12/5/2029	855,529	1,422,482		\$78.97	\$102.71	\$213,664,000
APCR	2/20/2030				\$79.94	\$102.71	-
A #29	3/6/2030	806,060			\$80.30	\$43.14	\$64,727,000
APCR	5/22/2030				\$85.46	\$102.71	-
A #30	6/5/2030	806,060	1,360,278		\$81.65	\$43.87	\$125,490,000
Total		3,323,177	2,782,760	-			\$470,313,000

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