

CARBON MARKET BUSINESS BRIEF

CALIFORNIA

CALIFORNIA ETS AT A GLANCE

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| Years in operation | <p>First compliance period: 2013-14 Second: 2015-17 Third: 2018-20 Fourth: 2021-23 Subsequent compliance periods last three years.</p> |
| Overall cap & trajectory | <p>The 2020 cap is 334.2 million tCO_{2e}. The cap declines by 13.4million tCO_{2e} annually on average, reaching 200.5million tCO_{2e} by 2030.</p> |
| Target(s) | <p>California has a series of longer-term climate targets, including a 2030 state reduction target of 40% below 1990 levels and a carbon neutrality goal in 2045.</p> <p>Cap-and-trade is operational through 2030 and is expected to achieve 38% of the state's abatement toward that goal, indicating a further reliance on the programme to be the workhorse of emissions reductions (as detailed in the most recent Scoping Plan in 2017). The role of cap-and-trade beyond 2030 and, by extension, in achieving the state's carbon neutrality goal is uncertain.</p> |
| Sectors covered | <ul style="list-style-type: none"> • Electricity generation (including imports) • Large stationary sources (including refineries, oil and gas production facilities, food processing plants, cement production facilities, and glass manufacturing facilities) that emit more than 25,000 tCO_{2e} annually • Since 2015, distributors of transportation fuels, natural gas, and other fuels were also covered. Fuels exclusively for aviation or marine use are not covered. |
| GHGs covered | <p>CO₂, CH₄, N₂O, SF₆, HFCs, PFCs, NF₃, and other fluorinated GHGs</p> |
| # of covered entities | <p>Approximately 600 entities have reporting obligations, and approximately 400 of those have compliance obligations</p> |
| Allocation method | <p>California distributes allowances differently to each of the three covered sectors:</p> <ul style="list-style-type: none"> • The industrial sector currently receives about 90% of its allowances for free based on output and efficiency, such that a producer is not penalised for making more goods and a producer who can make more goods with fewer emissions is rewarded. • The utility sector receives free allowances but must sell those allowances at auction and use the revenue to benefit its ratepayers, primarily through a climate credit on utility bills. • The transportation sector does not receive free allowances and must purchase them, either via the quarterly state-administered auctions or the private secondary market. |
| Trading rules | <p>The programme imposes holding and purchase limits that limit the overall quantity of allowances that entities can hold or purchase. Third-party financial entities can also participate in trading if they meet certain prerequisites.</p> |

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| Use of offsets and linking | <p>The use of offsets is limited to 8% of a covered entity's compliance obligation for the first three compliance periods, 4% for the fourth compliance period, and 6% for the fifth and sixth compliance periods. At least half of offsets post-2020 must provide direct environmental benefit to the state (DEBs). The California Air Resources Board has established rigorous US forestry, urban forestry, livestock, ozone depleting substances, mine methane capture, and rice cultivation compliance protocols.</p> <p>The programme linked to Quebec's cap-and-trade system in January 2014. It was linked to Ontario in January 2018, but a de-link occurred in mid-2018 when the province abruptly scrapped its system following a change of governance. There have been discussions on linkage with Oregon or Washington if they were to establish cap-and-trade systems.</p> |
| Other features | <p>California has a complex series of price controls, including an Auction Reserve Price which started at \$10 per tCO₂e in 2012 and increases 5% annually plus inflation. The 2021 auction price floor is \$17.71.</p> <p>Starting in 2021, a portion of allowances will be set aside in two reserves which are triggered at different price points. The reserves will be triggered at \$41.40 and \$53.20 per tCO₂e respectively, increasing by 5% plus inflation annually. These will replace three reserves that existed before 2021.</p> <p>A price ceiling will also be set starting in 2021, starting at \$65 per tCO₂e and rising by 5% plus inflation. If this threshold is triggered, units from the reserve will be offered at the price ceiling.</p> <p>Banking is allowed; borrowing is not allowed.</p> |
| Penalties for non-compliance | <p>Annual Compliance Obligation: A covered entity must surrender allowances equivalent to 30% of emissions from the previous year within the current compliance period by 1 November annually.</p> <p>Triennial Compliance Obligation: A covered entity must surrender allowances equivalent to 100% of emissions for the compliance period, less allowances already surrendered.</p> <p>Failure to surrender on time results in an immediate surrender obligation equivalent to four times the missing balance.</p> |
| Use of revenues | <p>Some revenue is returned directly to utility ratepayers through the California Climate Credit on utility bills.</p> <p>The rest makes up the Greenhouse Gas Reduction Fund (GGRF), which reduces greenhouse gas emissions through California Climate Investments (CCI), which emphasises benefits to low-income and disadvantaged communities. To date, the CCI has appropriated more than \$6 billion in investments.</p> |

MAJOR DEVELOPMENTS

The California government's re-authorisation, which took effect on 1 April 2019, extended the cap-and-trade programme until 2030. The re-authorisation modified the price ceiling, introduced allowance reserves triggered at prices below ceiling levels, and changed certain rules regarding offsets, including the so-called DEBs requirement that 50% of all credits used from 2021 onwards are from projects which provide direct environmental benefit to the state.

Current debates over programme design are primarily taking place through the Offset Protocol Task Force (OPTF), launched in January 2020, and the Independent Emissions Market Advisory Committee (IEMAC), launched in June 2018. The OPTF was created to provide guidance to the California Air Resources Board (ARB) in approving new offset protocols for use in the cap-and-trade programme. Conversations surrounding the OPTF focus on ensuring that new protocols exhibit additionality, permanence, and conservative baselines.

The IEMAC meanwhile was created to analyse the economic and environmental performance of the cap-and-trade programme. The IEMAC functions purely as an advisory committee to the lawmakers and ARB has no obligation to follow their suggestions. Conversations surrounding the IEMAC focus on allowance supply, specifically whether ARB is issuing too many allowances and, if so, whether to intervene in the market to restrict allowance supply.

MARKET COMMENTARY

Over the course of the WCI cap-and-trade programme, an increasing oversupply of allowances have kept prices close to the annual auction floor price. California state legislators’ 2017 agreement to extend the programme to 2030 boosted confidence in the market and drew outside interest. In August 2018, financial market participants’ interest in the market increased, though they did not hold a significant position in the market.

After the February 2019 auction, more financial participants, including several hedge funds, started taking large positions in the market. The position of these participants kept growing and reached a high of nearly 71million tCO₂e in futures and options by 10 March 2020. This increase in demand pushed prices well above the auction floor price over this period, to nearly \$20.

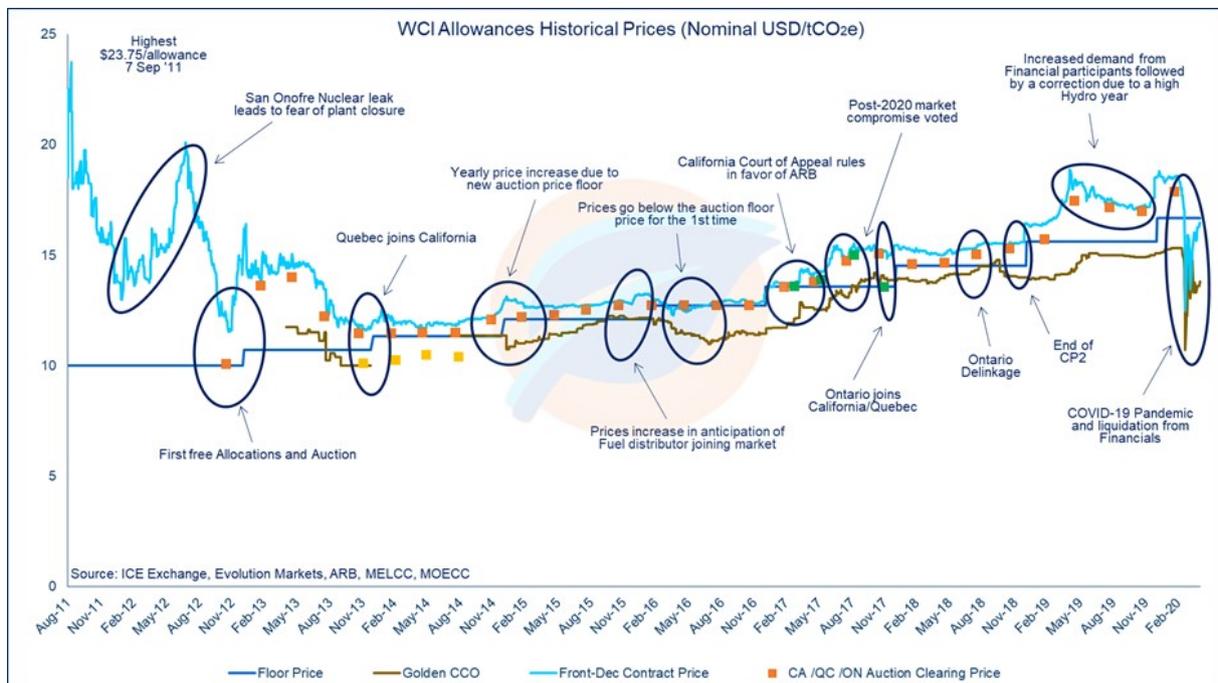


FIGURE 1
California Carbon Allowance Price History (\$/tCO₂e)

However, the COVID-19 outbreak in March 2020 quickly led to market uncertainty, as California and Quebec both enforced jurisdiction-wide travel restrictions and business closures. As a result, many market participants – especially financial participants – liquidated a large portion of their positions, which drove prices down to unprecedented lows, far below the 2020 auction floor price of \$16.68 and, on 20 March 2020, the price dropped to \$11.80. The COVID-19 pandemic has affected every aspect of the economy; however, its effect has been most pronounced in the WCI’s biggest-emitting sector, the transportation sector. The sector – which amounts to almost 50% of all covered emissions – has seen the biggest impact in terms of temporary emissions drop, due to the varied lockdown restrictions in order to slow the spread of the virus.

Since reaching a low in March 2020, prices have been on a slow but steady upward trend and are hovering around the \$18 mark as of March 2021. Although both the USA and Canada have been recovering economically, the COVID-19 pandemic is expected to reduce 2021 emissions below 2019 levels, although still above 2020 levels. As a result, allowance prices are expected to start uncoupling from the floor price sometime in 2022, when the market will start to experience growing yearly deficits.

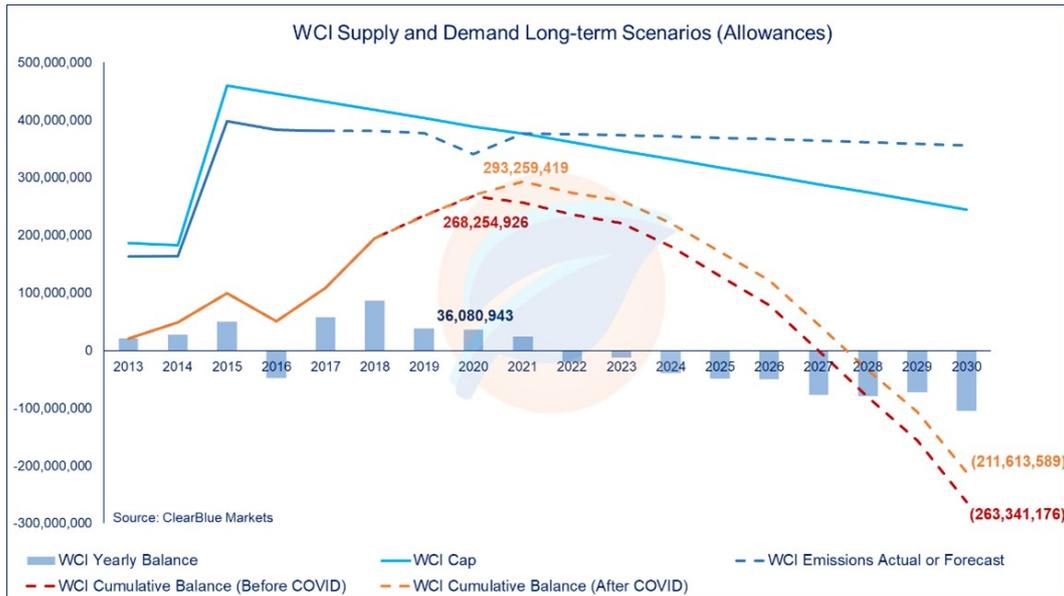


FIGURE 2
WCI Supply and Demand Forecast Scenarios (Allowances)

USEFUL LINKS

[ICAP California ETS Fact Sheet](#)

[Use of Auction Revenue](#)

[IEMAC Home Page](#)

[OPTF Home Page](#)

REFERENCES

[California Air Resources Board Cap-and-Trade Home Page](#)

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