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LCFS Forecast: Credit Prices to Continue Slide as High Diesel Prices and Electricity Gains Support Credit Build

Stratas Advisors

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In our previous forecast, we predicted that California's governing body of the LCFS program, the Air Resources Board (CARB), would raise the 2030 GHG reduction target of 20%, and it has recently announced that it will do so. Given the various directions the program could take, it is difficult to say with a high degree of certainty what the fuel profile, credit bank and credit price will look like in the next eight years in LCFS market until CARB announces the new target. We have analyzed three different scenarios and will adjust our model based on what CARB officially announces as the new GHG reduction target. Our three main GHG reduction scenarios include a downside case, our previous forecast's projected 22.5% reduction, our new base case 25% reduction and on the higher side, a 30% reduction. These values are not indicative of what CARB will select as they could choose even higher reductions or strengthen the credit price through other means and only increase the GHG reduction target modestly, but they have previously modeled a 25% reduction, in their published studies and so serves as a good starting point. Each fuel pathway's credit generation would change as associated carbon intensities would generate different volumes and dollar values of credits depending on the target and credit price. For example, the higher future credit price projections under a 30% reduction scenario would have more renewable diesel projects economically viable and contribute to a larger share of renewable diesel in the energy mix vs a 22.5% reduction scenario.

Source: California Air Resources Board, Stratas Advisors

**This graph includes a forecast out to 2030 that is available in the full version of this article.*

Recent ZEV sales data supports the projected adoption of ZEV, showing an increasing share of new car sales in California. ZEVs made up about 12.4% of new LDV sales in California in 2021, and currently make up 16.3% through Q1 2022. This is a sharp rise from previous figures of 7.8% of sales in 2020 and 6.84% in 2019. Governor Newsome survived a recall election in 2021 and passed Executive Order N-79-20, which targets all new car sales to be ZEVs by 2035…

Ethanol carbon capture and storage (CCS) projects have seen progress made since their announcements,

  1616 South Voss Road Suite 675 | Houston, TX 77057 | United States | +1.713.260.6426 | stratasadvisors.com

despite some local opposition. For example, former Governor of Iowa, Terry Branstad, has been hired as an advisor to the Summit Carbon Solutions project which should help to progress it through regulatory hurdles. The two other larger announced projects from Navigator and ADM-Wolf Midstream also seem to be progressing. These developments have led to us increase the credit generation from corn ethanol in the model, but this could change depending on the final CI assigned to these projects and their volumes. These projects would also gain 45Q credits in addition to LCFS and RIN credits, which helps to reduce the importance of the LCFS credit in comparison to some other investments. Renewable energy projects have become increasingly attractive to financial investors as part of a wider push to ESG in the market, but this pace may see a slight slowdown due to the sharp decline in the LCFS price.

Recently, LCFS prices dropped below $90 a credit, near the lowest levels seen in the past five years and under 50% of 2020 levels of around $200. CARB's announcement that they would strengthen the GHG reduction goals of the LCFS program has not seemed to send a strong signal to the market yet. Renewable diesel is the most variable fuel pathway in the LCFS program and the most susceptible to low credit prices…

The other major source of credit generation, and the largest on a per unit of volume basis, renewable natural gas (RNG), is nearing total market saturation in fueling the California CNG vehicle fleet and as mentioned in the previous forecast update, could shift towards power generation for EV charging. In addition, the voluntary market from RNG has recently seen rapid growth as companies are also searching for ways to lower the carbon intensity of their operations. The reported news that the Securities and Exchange Commission (SEC) could make publicly traded US companies disclose their carbon emissions would only further drive a push for RNG and biogas…

Source: California Air Resources Board, Stratas Advisors

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CARB has a stated goal to attract investment in low carbon fuels and knows the importance of the California market given its size and the relative absence of similar programs incentivizing investments elsewhere in North America (and any potential future markets years off from relevance). Further announcements from CARB are likely needed to turn the LCFS credit price direction as the expectation of further credit building seems to be entrenched. In addition to the GHG reduction target increase, CARB is considering some other changes to the program under its scoping plan that is likely to be implemented in 2024 at the earliest…

Source: California Air Resources Board, Stratas Advisors

**This graph includes a forecast out to 2030 with three scenarios that is available in the full version of this article.*

…In addition, the Newsome administration recently announced a massive budget windfall, although this is unlikely to be directed toward the LCFS program since it is "self-contained" in that the fuel providers generating deficits pay those generating credits without external funding from the government. It could have some effect if it were used to further incentivize ZEV adoption or infrastructure development, but reportedly Governor Newsome is considering more populist measures such as stimulus checks.

LCFS credit prices are likely to continue to languish in the absence of a firm announcement from CARB about an ambitious GHG reduction target, extension of the program and/or a minimum credit price with a major announcement likely to stabilize prices. However, the regulatory body is likely to take time to review the options, solicit feedback and announce the new target and finalize the scoping plan. Even with such an announcement…

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