

CLEAN FUELS MARKET UPDATE

FEBRUARY 2022



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INDUSTRY HIGHLIGHTS

➤ CARB held an [LCFS workshop](#) in December to initiate stakeholder engagement as part of an LCFS Program regulatory review. CARB has indicated that changes to the program will align with the 2022 Scoping Plan and would go into effect beginning in 2024.

➤ On February 3rd, the [New Mexico Senate](#) passed [Senate Bill 14](#) by a 25-16 vote to enact a Clean Fuel Standard in the state. The Bill now heads to the House of Representatives.

➤ In January, [General Motors](#) announced it will be spending \$6.6 billion to accelerate its sales in the EV market over the next three years. GM plans to manufacture over one million EVs in North America by 2025.

➤ The renewable natural gas (RNG) market continues to grow. Learn more about recent trends in our Spotlight section (pg. 3).

➤ On February 2nd, the U.S. Department of Transportation published a free guide, [Charging Forward: A Toolkit for Planning and Funding Rural Electric Mobility Infrastructure](#), to prepare rural communities for the transition to EVs.

➤ The EPA established the [Clean School Bus Program](#) to help schools across the country implement low- or zero-emission school buses (pg. 6).

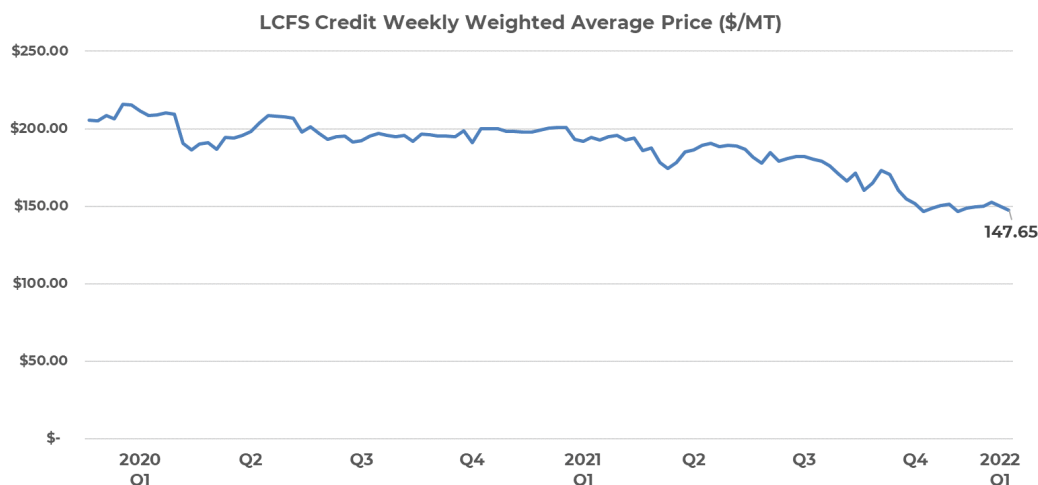
SRECTRADE HIGHLIGHT

➤ SRECTrade has joined [Xpansiv](#) to lead the transition to a low-carbon future. Now wholly owned by Xpansiv Ltd., SRECTrade, Inc. enables clients to access, manage, and monetize environmental commodities globally. Read the full announcement [here](#).

RECENT CALIFORNIA LCFS CREDIT PRICE TRENDS

- Since November 2021, the California LCFS market has stayed within a tight range with average credit prices fluctuating between \$140s and \$150s.
- Prices declined from low \$180s in August 2021 to mid \$150s before quarterly credit issuance at the beginning of October 2021. Prices have since declined further to the low \$140s after the release of Q3 2021 program data and the news of sizable public auctions of credits in February 2022.
- The market has been driven by both a slower rebound in gasoline and diesel demand from pre-pandemic levels and expectations of increases in future credit generation from a variety of low carbon fuel sources, including renewable natural gas, renewable diesel, and electricity.
- CARB began engagement as part of a regulatory review which will likely set more stringent requirements past 2030 and even prior to 2030, a generally bullish signal to the market.
- Deficit and credit production data for Q4 2021 will be released April 30, 2022.

The chart below shows historic pricing from Q4 2019 through February 7, 2022 as reported by CARB. Note that beginning in October 2019, pricing data was reflective of Type 1 or spot market transfers.



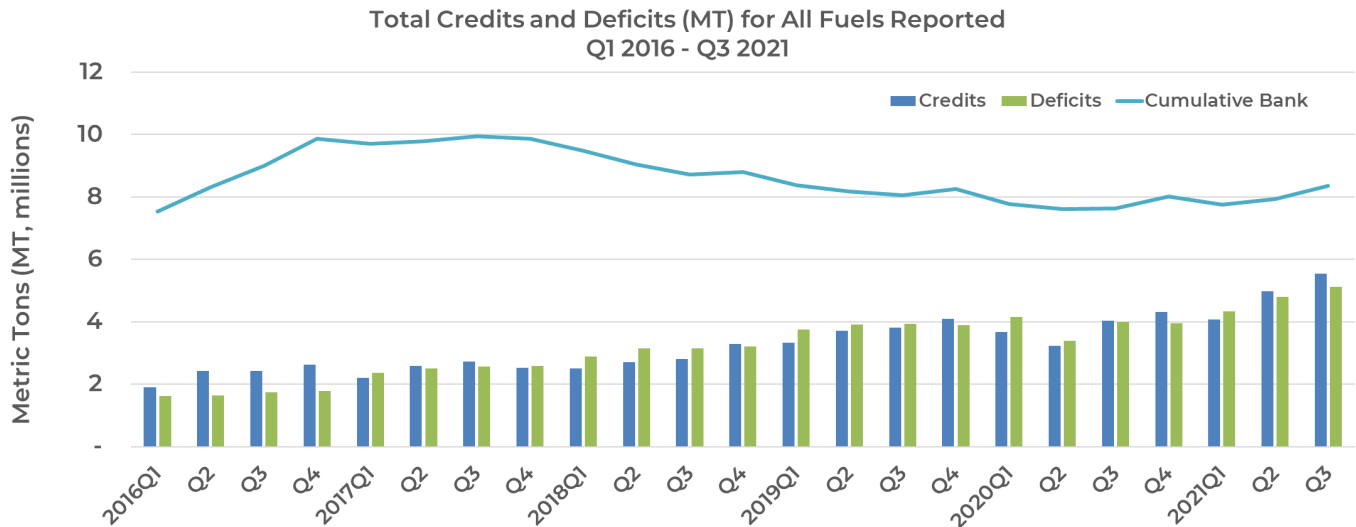
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CALIFORNIA LCFS CREDIT AND DEFICIT REPORT

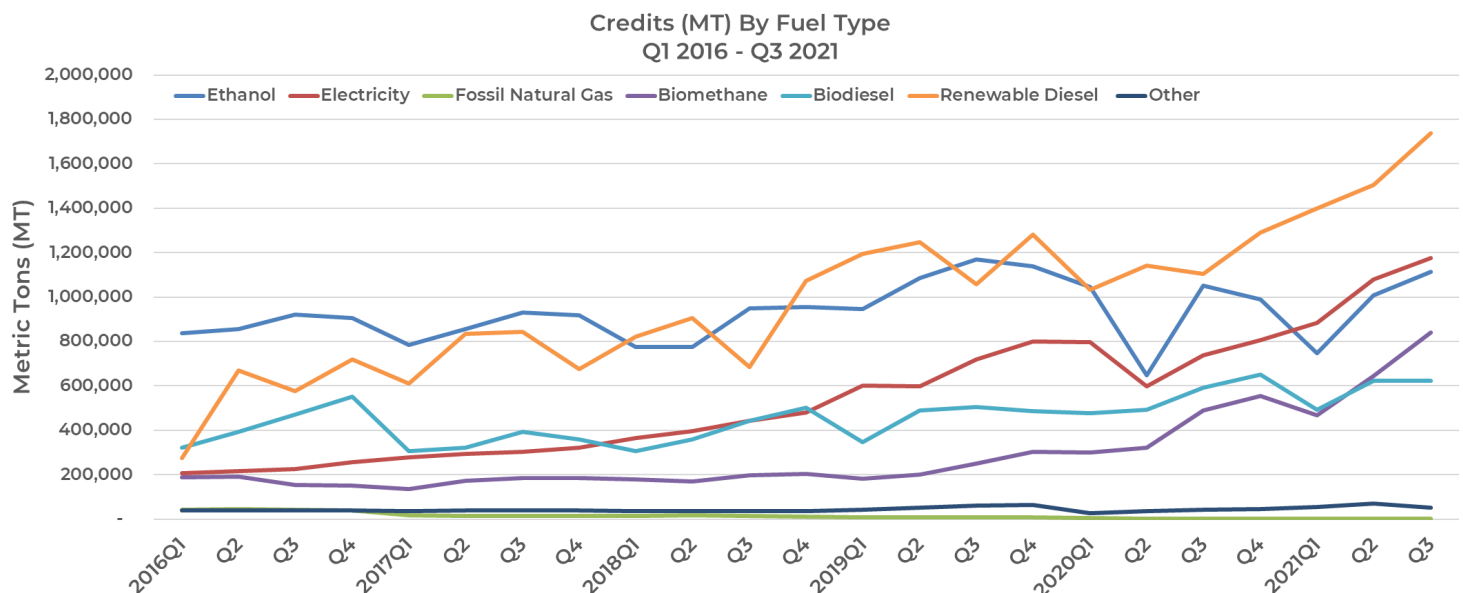
- On January 31st, 2022, CARB released the **Q3 2021 credit and deficit data**.
- The market saw an increase in the credit bank of nearly 433k credits, its largest credit increase since 2016.
- This compares with a net credit of 181k in Q2 2021 and 26k in Q3 2020. Overall, the credit bank increased 5.5% from 7.92 million to 8.36 million.
- 5.45 million credits were issued in Q3 2021 compared to 5.11 million deficits generated.

The chart below reflects the total credits and deficits since 2016 and the trends in the cumulative credit bank.



- Renewable diesel and renewable natural gas continued to be the largest contributors to the increase in net credits both posting their largest ever credit increases quarter over quarter
- Renewable diesel and renewable natural gas credits were up 15.5% and 31.3%, respectively
- Of note, renewable natural gas average carbon intensity (CI) score dropped from -36 to -62 signifying a substantial uptick in negative-CI dairy gas projects
- Electricity credits continued to increase, but at a slower rate due to lower rates of increase in off-road electricity credits
- Volume of gasoline and diesel both increased from Q2 but at a slower rate than in the previous quarter

The chart below depicts the credit volume issued by fuel type since 2016



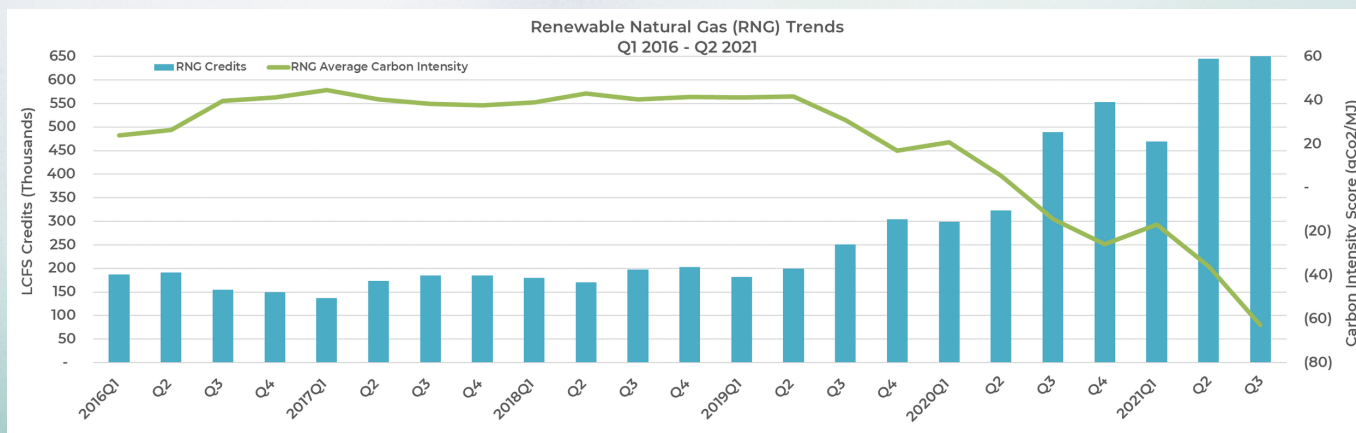
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SPOTLIGHT: GROWTH OF RENEWABLE NATURAL GAS

Renewable natural gas (RNG) refers to methane captured from waste streams and processed to be used for energy and fuel production as well as other industrial applications. RNG has measurably lower GHG emissions than conventional natural gas. RNG as a transportation fuel has been on the rise, supported in part by incentives from the CA LCFS program.

The chart below illustrates the rapid increase in RNG-generated LCFS credits (blue bars) in recent quarters. Notably, the increase in credits is driven largely by the declining average carbon intensity of RNG being delivered to California (green line). This is due to the increase of RNG from dairy farms, where excess methane is captured and converted into natural gas. As of Q3 2021, the average carbon intensity of RNG in California's LCFS currently stands at -63 gCO₂/MJ.

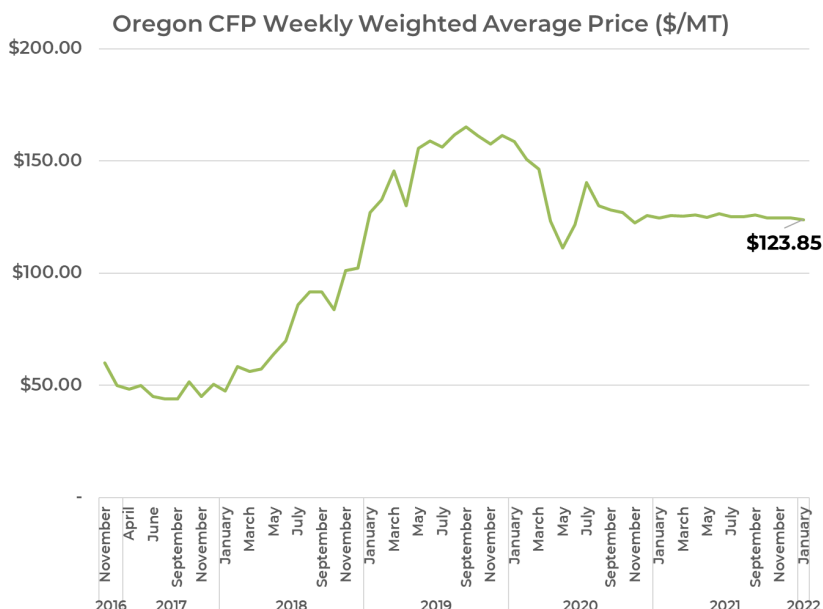


OREGON CFP MARKET UPDATE

The Oregon Clean Fuels Program (OR CFP) pricing for Q4 2021 continued to remain steady at approximately \$125 per credit. Since the beginning of 2021, OR CFP pricing has remained largely unchanged, hovering between \$124 and \$126.

SRECTrade manages and monetizes a variety of client assets under the California LCFS, Oregon CFP, and other emerging clean fuels markets as well as renewable energy credit (REC) markets across North America.

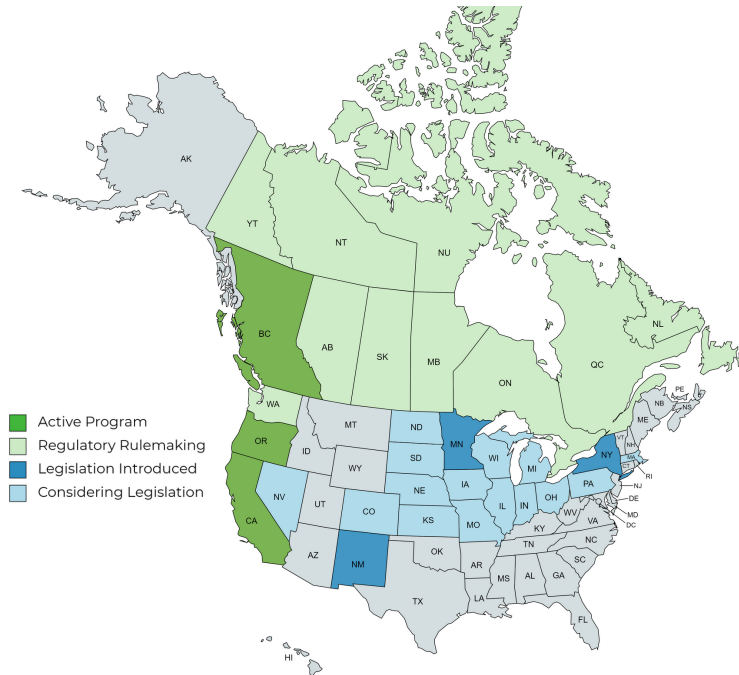
Contact us at cleanfuels@srectrade.com or call (415) 763-7732 to start generating revenue from your clean energy assets.



CLEAN FUEL PROGRAM UPDATES

BC LCFS Rule Change Enables EV Charging Credits

A rule change enabling EV charging site hosts and fleet owners to earn LCFS credits within the British Columbia program took effect at the start of the year. The previous rule limited EV credit generation to utility providers. The BC LCFS program shares many design features with the California and Oregon clean fuel programs, providing a valuable incentive to deploy and operate lower carbon vehicles and fuels. If you are interested in learning more about how to participate in and benefit from the BC LCFS program, please contact cleanfuels@srectrade.com.



Advocates Renew Push for LCFS Legislation

State lawmakers will consider legislation to adopt LCFS programs that have been developed for California, Oregon, and now Washington State. In January, bills were introduced in a number of states including New York, Minnesota, and New Mexico. Policy advocates and other stakeholders are increasingly pointing to clean fuel standards as one of the best strategies for addressing both environmental and economic issues. Other states such as Pennsylvania, Michigan, and Nevada have identified LCFS as a key strategy in achieving their climate goals.

Oregon Kicks off Workshops to Extend Clean Fuel Program Beyond 2025

A series of advisory committee meetings and public workshops are being held through July 2022 to gather stakeholder input on potential changes to the Oregon Clean Fuels Program. Regulators will consider expanding carbon intensity requirements beyond 2025 to align with Governor Brown's Executive Order 20-04 directing state agencies to take continued action to reduce emissions. Regulators will also consider expanding eligibility to new electric vehicle applications, updating GHG calculation methodologies, and streamlining reporting and registration requirements. The formal public comment period is expected to begin this summer and conclude early fall, with new rules taking effect in 2023. SRECTrade is engaged and providing comment to make the program as usable and beneficial as possible.

Washington Clean Fuel Standard In Development

Regulators in Washington State kicked off rulemaking last year and will continue holding stakeholder meetings to develop an initial set of clean fuel program requirements by 2023. If you own or operate a clean fleet in Washington State, Reach out to cleanfuels@srectrade.com to learn how your organization can benefit from the program.



2022 CALIFORNIA REGULATORY OVERVIEW

As California continues its transition to zero-emission transportation, keep track of current and planned regulation that can impact your fleet, facility equipment and energy strategy at present and for the future.

..... CURRENT

Indirect Source Rule (ISR)

This program requires warehouse operators in the South Coast AQMD region above 100,000 sq/ft to take actions to electrify warehouse activities and trucks that visit said warehouses to improve air quality. Stakeholders have challenged this rule in a lawsuit, arguing that the enforcement is outside AQMD authority.

Innovative Clean Transit (ICT) Rule

Adopted in 2018, this rule requires all public transit agencies to transition to a zero-emission bus fleet by 2040. According to CARB, they are on track to begin enforcement of the rule, which starts with requiring 25% of new bus purchases for large transit agencies to be zero-emission from 2023 onwards.

Zero-Emission Airport Shuttle

This rule requires all airport shuttle operators to transition to zero-emission fleet by 2035, beginning the transition in 2027 with 33% required to be zero-emission.

Advanced Clean Fleets (ACF) Regulation

The ACF sets a 2045 or earlier deadline for all medium- and heavy-duty fleet operators to transition to a zero-emission fleet. This regulation is set up to support the success of the Advanced Clean Trucks rule. The segments affected are:

- Drayage trucks at ports and railroads by 2035
- Public fleets by 2045, where feasible
- High priority and federal fleets by 2045, where feasible

Advanced Clean Trucks (ACT) Rule

The ACT, passed in June 2020, aims to accelerate the deployment of medium- and heavy-duty vehicles, by two ways: requiring manufacturers to sell an increasing percentage of zero-emission trucks from 2024 onwards, and by requiring large fleets to submit reports detailing their fleet makeup that will inform regulations moving forward.

..... DEVELOPING

Zero-Emission Forklift

This CARB rule requires forklift operators to phase out internal combustion (IC) forklifts and transition to zero-emission forklifts in stages, depending on class and capacity. This measure is scheduled for Board consideration in 2022/2023.

Zero-Emission CHE

The rule amends CARB's existing cargo handling equipment (CHE) regulation to transition to zero-emissions, which is estimated to be scheduled for Board consideration in 2024.

Zero-Emission TRUs

The CARB rule requires the new transport refrigeration units (TRUs) to "green up" and facility owners to report on all TRUs that operate at their facilities.



GRANT PROGRAMS UPDATE

EPA Establishes the Clean School Bus Program

With funding allocated through the 2021 Bipartisan Infrastructure Law, the Environmental Protection Agency (EPA) established the Clean School Bus Program to help schools across the country implement low- or zero-emission school buses. This year, the program will start providing \$500 million annually for the replacement of existing school buses with electric buses. For more information, see the program's Fact Sheet.



CAL eVIP Has More Funding for EV Chargers

Through CAL eVIP, the Alameda County Incentive Project has ~\$2 million in funding remaining for Level 2 EV charger purchases and installation within the county. Applications opened in December 2021 and the project will continue to award funding on a first-come, first-served basis. CAL eVIP also has opportunities for other counties to obtain funding through the Southern California Level 2 Incentive Project, which begins April 5th.

HVIP Updates Policy for 2022

The Zero-Emission Truck and Bus Voucher Incentive Project (HVIP) has multiple updates to its policy such as the Public School Bus Set-Aside which will provide \$130 million for zero-emission public school buses. HVIP also expanded its opportunities to help fund incentives for drayage trucks, independent trucks, and heavy-duty vehicles in disadvantaged communities (DAC). For information regarding future funding waves in 2022, see HVIP's website.



CA's VW Mitigation Trust Funding Opportunities Continue Into the New Year

The California VW Mitigation Trust continues to provide funding to replace older transit and shuttle buses with zero-emission buses in the state of California. The trust also has \$20 million in funding available on a first-come, first-served basis for Zero-Emission Freight and Marine Projects with final applications due by March 22, 2022.

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FCI CREDITING LOWERS YOUR CAPITAL INVESTMENT IN DC FAST CHARGERS

To accelerate the deployment of DC fast chargers (DCFC) in California, the California Air Resources Board (CARB) introduced a mechanism, known as DC Fast Charging Infrastructure (FCI) Crediting, to fund the deployment of DCFCs.

The FCI crediting mechanism guarantees a minimum amount of LCFS credits per quarter based on charging capacity and uptime.

Basic criteria for eligibility include:

- The DC Fast Chargers must be publicly accessible and intended for light-duty vehicles
- The charging station owner is the only party who can generate the credits in their own CARB account
- The chargers need to have been commissioned on or after January 1, 2019
- Capital and operational expenditure reports must be submitted on a quarterly basis

SRECTrade manages and monetizes FCI credits on a case-by-case basis. Reach out to learn more about how FCI crediting can fund the initial deployment of your DCFCs.



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ABOUT US

SRECTrade helps you get paid on the use of zero-emission vehicles and fueling equipment that you already own, such as electric light-duty vehicles, forklifts, trucks, and charging stations. SRECTrade is the largest agent manager of EV assets for California's Low Carbon Fuel Standard (LCFS) and the trusted partner across North America for similar programs already redefining equipment plans and budgets. With 175,000+ assets on its tech platform and more than 64,000 assets under management, SRECTrade operates in 14 compliance markets across 20 unique environmental commodities with > 99% client retention. We help you get paid to accelerate deployment of clean energy and transportation equipment, while minimizing time, cost, and risk of complex and diverse regulatory programs.



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