CA LCFS MARKET UPDATE

Low Carbon Fuel Standard (LCFS) Market Overview

FEBRUARY 2020

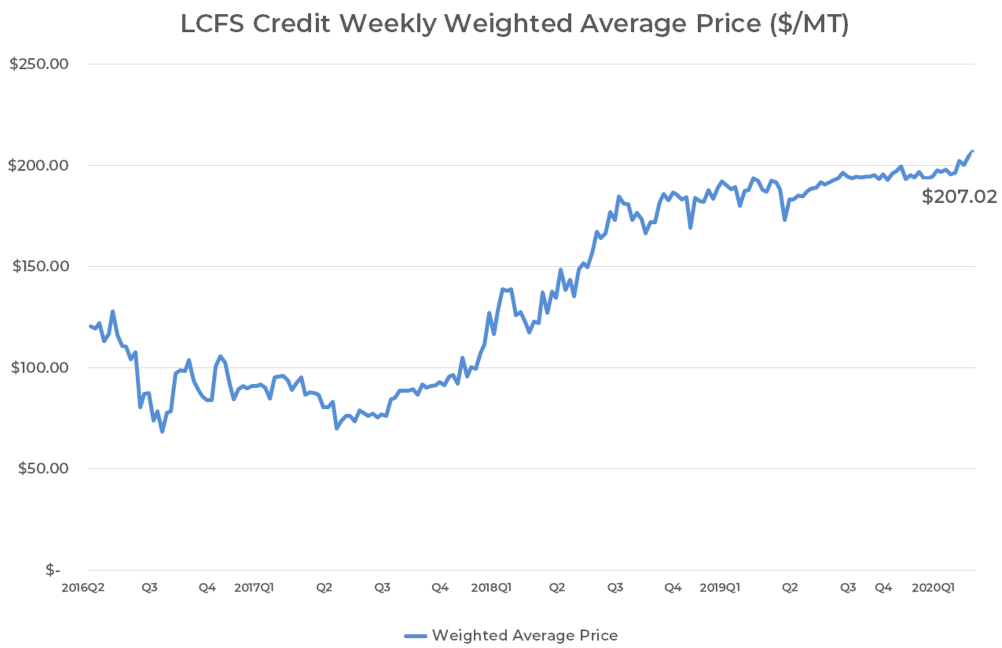
HIGHLIGHTS

- The Great Plains Institute has unveiled a Midwest Regional Clean Fuels Policy Report that provides high level considerations on how to structure a policy that benefits the Midwest. The report recommends a technology-neutral, portfolio approach that encourages a fair and competitive marketplace
- The Center Transportation and the Environment (CTE) is working with the Orange County Transportation Authority (OCTA) to launch a fleet of 10 Fuel Cell Electric Buses and the largest Transit Hydrogen Fueling Station in the United States
- Democrats on the U.S. House Energy and Commerce Committee unveiled a draft climate plan, the CLEAN Future Act, in early January. The Act would place the country on a path to achieve zero-net carbon emissions by 2050 through a range of measures, including electrification of the transportation sector
- California Energy Commission announced it plans to Invest $95 Million in Clean Transportation with $32.7m spent on light duty EV charging and $30m on heavy duty infrastructure
- Market participants are taking advantage of the incremental low and zero carbon intensity electricity pathways. Q3 2019 incremental electricity credits issued increased 4.6x over Q2 2019 volumes

RECENT CA LCFS CREDIT PRICE TRENDS

- Continuing into the new year, CA LCFS credit prices traded at all-time highs.
- California LCFS credits have been consistently trading around $200+ per credit since November 2019 and throughout January 2020.
- Weighted average pricing reported in the LCFS Registry Tracking Credit Bank and Transfer System (LRT-CBTS) ranged between $197 and $205 in January 2020.
- The weighted average price throughout 2019 was $191.89 per credit.
- Despite the cost containment provisions the California Air Resources Board (CARB) implemented in late 2019, the market recently has transacted above the implied ~$213 cap.
- Near term pricing strength is expected to remain as carbon intensity reduction requirements continue to increase. Medium to longer term, it is expected more clean fuel supply will come to market and credit pricing will respond accordingly.

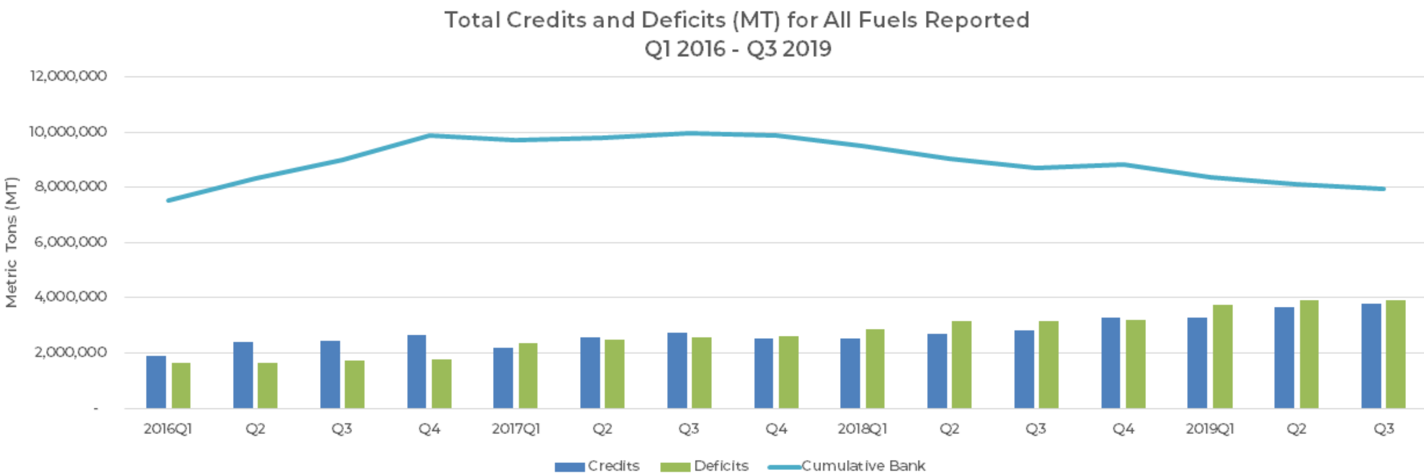
The chart below shows historic pricing from 2016 through February 9, 2020 as reported by CARB:



CREDIT AND DEFICIT REPORT

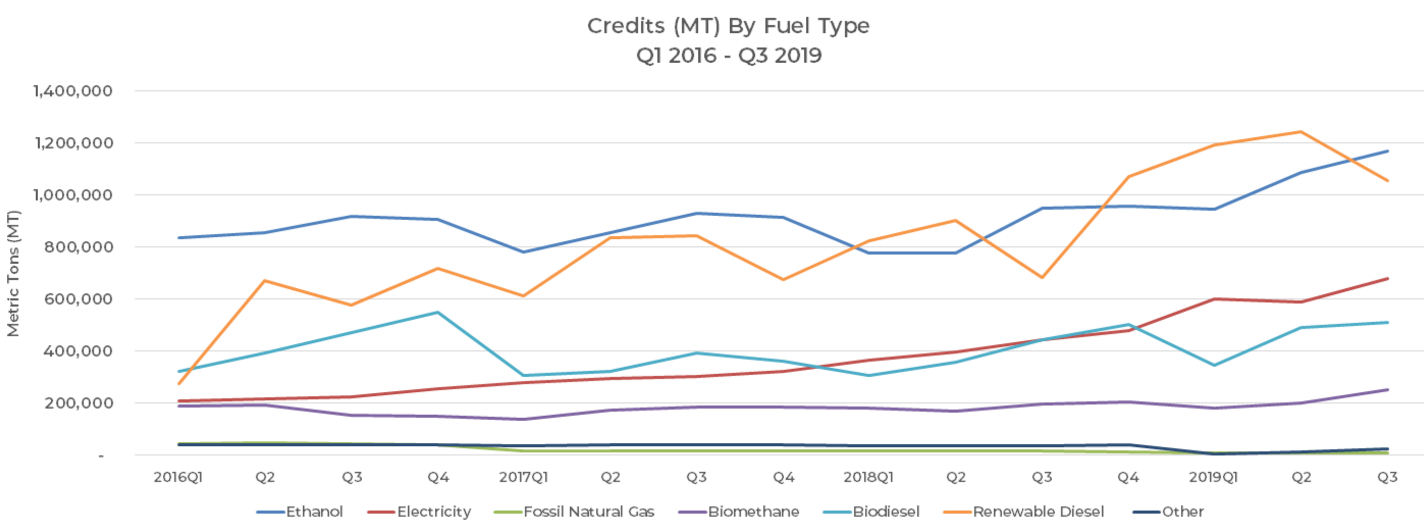
- On January 31, 2020, CARB released the Q3 2019 credit and deficit data.
- The market saw another record credit and deficit generation in Q3 2019.
- Even though the gap is slowly closing between credits issued and deficits generated, deficits continued to outpace credits with 3.9 mm deficits generated in Q3 2019 vs. a total balance of 3.8 mm credits issued.

The chart below reflects the total credits and deficits since 2016 and the trends in cumulative credit bank. The draw in the credit bank since 2017 corresponds to the increase in credits prices over the same time frame.



- Both Q2 and Q3 2019 reflected smaller draws on the cumulative bank. As deficit generation continues to outpace credits issued, we expect to see more drawn upon the cumulative bank.
- There was a slight increase in credit volume with 3.78 mm credits produced, up 3.1% from Q2 2019's volume of 3.67 mm.

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

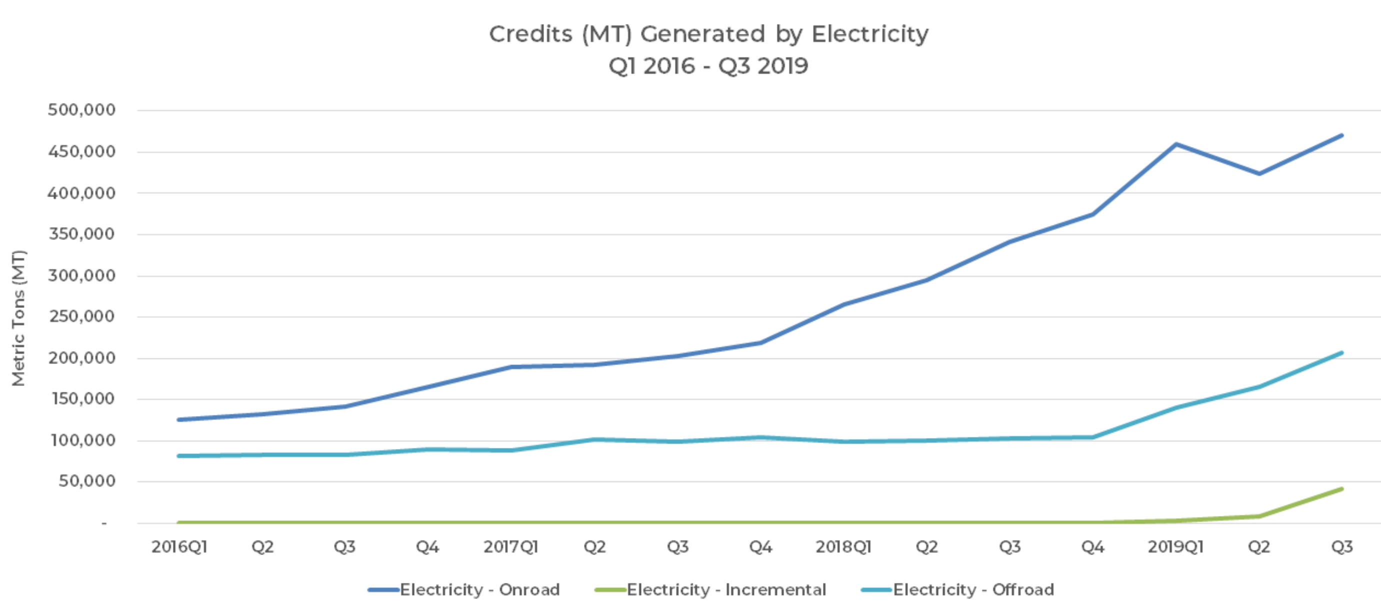


Fuel Type	Change from Q2 2019 (%)	Change from Q3 2018 (%)	Change from Trailing Four Qtr. Avg. (%)
Ethanol <65	53.8%	256.4%	133.0%
Renewable Diesel	-15.2%	54.3%	0.6%
Bio-CNG	27.4%	31.1%	30.8%
Hydrogen	27.0%	118.4%	63.5%
Electricity	20.2%	62.2%	35.5%
All Fuels	3.0%	35.0%	15.8%

- Contributors to the credit growth were Ethanol <65, increased 53.8% from 475.3k credits to 730.8k. Another notable increase was found in Renewable Natural Gas (Bio-CNG), up by 50.5k credits from 184.3k to 234.8k.
- There was a significant decrease in renewable diesel with 1.06 mm credits produced in Q3 2019, down 15.2% from Q2 2019 with 1.25 mm credits produced.
- Progressing into 2020, Carbon Intensity (CI) targets takes another step down in Compliance Standard. The market will likely see an uptick in deficit production beginning Q1 2020, barring any major changes in fuel production.

ELECTRICITY AND INCREMENTAL CREDITING UPDATES

- Credits generated in Q3 2019 from on-road electricity reached a record high of 470.5k, rebounding from the decrease in Q2 2019. Off-road vehicles increased 25%, up from 165.8k credits to 207.2k.
- Since the commencement of incremental Electricity in Q1 2019, there has been a 12.8x increase in Q3 2019 ending with just over 42,000 credits issued. This indicates that participants are taking advantage of the new pathways to generate additional credits.



ABOUT US

SRECTrade offers LCFS credit management and transaction services to electric vehicle (EV) fleet operators, OEMs, EV charging station owners, and other asset owners. We help our clients navigate through the entire LCFS process including asset registration, ongoing reporting requirements, application of incremental pathways, transacting, settlement, and remittance of funds. Our domain expertise in environmental commodity markets allows us to provide our clients with industry leading regulatory and market knowledge. Please reach out to cleanfuels@srectrade.com for more information.

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