2019 Amendments to California LCFS

Background Information

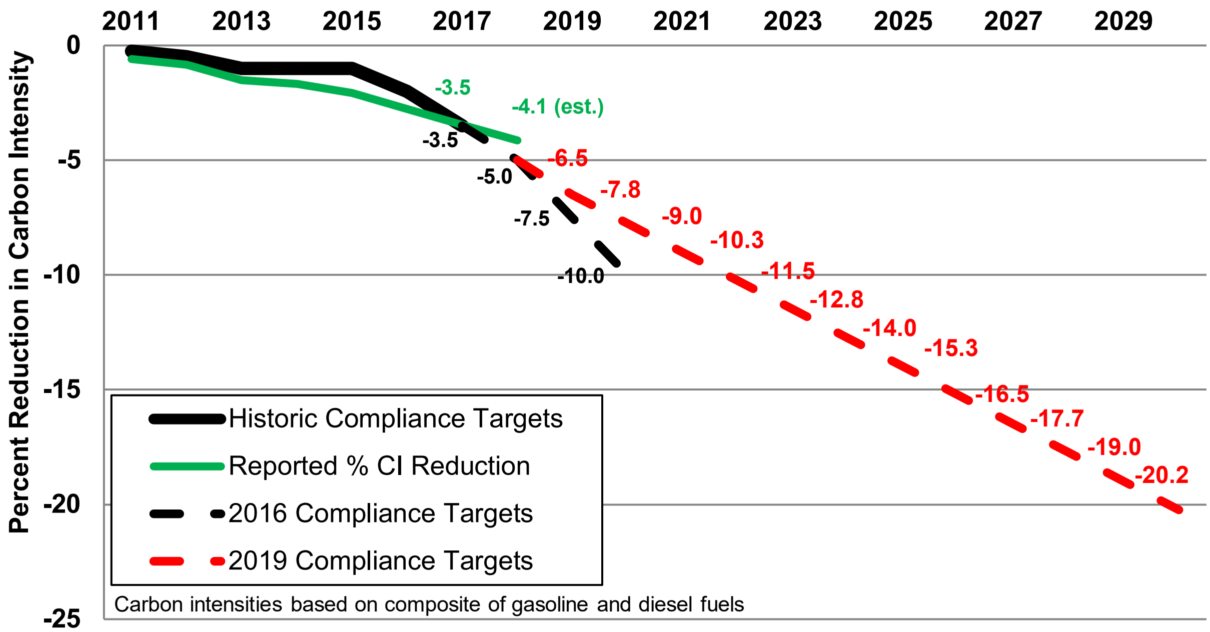
In 2006, under the AB 32 Scoping Plan, the California Air Resources Board identified the Low Carbon Fuel Standard (LCFS) as one of nine early action measures to reduce California's greenhouse gas emissions that cause climate change. The program aims to help put California on the path to meet its goal of reducing greenhouse gas emissions to 1990 levels (10% reduction) by the year 2022 and to a 20% reduction by 2030. The LCFS is designed to decrease the carbon intensity of California's transportation fuel pool and provide an increasing range of low-carbon and renewable alternatives.

Implementation began on January 1, 2011. ARB implemented amendments on January 1, 2013. The compliance standard was frozen at a 1% reduction from 2013 through 2015 due to legal challenges. The re-adoption of the LCFS became effective on January 1, 2016. The latest ARB amendments to the LCFS program became effective January 1, 2019.

LCFS Program Targets

In addition to the legal challenges mentioned above, the original LCFS program targets were recognized to be technically unachievable without some modification to the program. Figure 1 below shows that the transportation fuel Carbon Intensity targets in California's LCFS program have been revised twice, once in 2013 and again in 2019. Until the 2019 amendments, the initial regulations and all its amendments, re-adoptions, etc., targeted a 10% carbon intensity reduction by 2020. The 2019 amended regulations delayed the 10% reduction target until 2022. The CI reduction target for 2019 was reduced in the 2019 amendments to 6.5% from 7.5% in the 2016 amendments. The CI reduction target for 2020 was reduced in the 2019 amendments to 7.8% from 10% in the 2016 amendments. The primary change in the program has been to increase the way credits can be generated. For instance, the program now gives credits for electric forklift truck usage and innovative crude oil production techniques. We expect the program will continue to expand the inclusion of innovative, low carbon energy consumption techniques in order to meet the carbon intensity reduction targets. It is notable that some of these energy usage credits do not come directly from the current gasoline and diesel pool.

Figure 1
2011-2018 Performance of the Low Carbon Fuel Standard



Verification/Validation

Starting in 2020, third-party validation is required of any alternative fuel pathway before ARB approval of a CI. Starting in 2021, from March 31 until August 31, there will be annual verification of the following:

1. Alternative liquid fuel producers and importers;
2. Liquid fuel exporters;
3. Reporters of biomethane using book-and-claim accounting;
4. Reporters of propane and fossil CNG/LNG;
5. Petroleum refineries; and
6. Reporters of project-based credits.

Both validation and verification of alternative liquid fuel producers will require site visits.

GREET 2.0 to GREET 3.0 Model

The GREET lifecycle model will be updated to 3.0 from 2.0. The most common low carbon fuels are considered Tier 1 and will not require full use of the full GREET model, but rather the Simplified CI Calculator. The Simplified CI Calculator has the user input 24 months of the most recent data by month (i.e., natural gas and electricity invoices, feedstock receipts, biodiesel sales, etc.). This will be the data which the verifier will be both validating before a CI is given and verifying annually.

Optional Addition of Renewable Jet

Renewable jet will be allowed as an opt-in, credit-generating fuel. LCFS deficits are not incurred by fossil jet fuel since California does not currently regulate it.

Various Other 2019 Changes

There are various other changes in the 2019 LCFS amendments including zero-emission vehicle incentives, allowing exchanges to participate in the LCFS marketplace, new carbon capture and storage protocols, transitioning from refinery-wide GHG reduction accounting to project-level, and allowing electricity credits for more transportation applications such as motorbikes, forklifts, refrigerated transport units, etc.

In our next Focus on Fuels, we will look at the historical performance of the program. For a sneak peek of the article, contact us at 214-754-0898 or email Elizabeth Hilbourn at ehilbourn@turnermason.com. Also, contact us if you have any questions on the myriad of fuel regulatory programs.