

## **E. Potential Alternative Compliance Mechanisms**

### **1. Need for Such Mechanisms**

The market availability and rate of deployment of low carbon (LC) fuels is uncertain. Consequently, it is reasonable to expect that there may be times in future years when market supplies of LC fuels are insufficient to support the carbon intensity (CI) targets set forth in the standard. In essence, future supply tightness might lead to one or more parties being unable to comply with the standard.

At this juncture, obligated parties, investors and ARB itself are uncertain how a supply shortfall would be managed. This uncertainty, by and of itself, creates several challenges that could undermine or even destabilize the LCFS:

- Uncertainty exists regarding regulatory response in the event that one or more obligated parties are unable to meet their obligations using market-available options. Obligated parties must balance the risk that California might compel them to cease distributing non-compliant fuel with the risk that California might relax its standards; making good faith pre-investment in meeting LCFS targets a losing proposition. This complicates contingency planning for such an event, especially if the factors influencing ARB's decisions are not transparent or beyond the control of the obligated party.
- Uncertainty regarding the treatment of obligated parties that have insufficient LC fuel to comply with the LCFS leads to uncertainty regarding the CI standard itself. Obligated parties and investors/developers of LC fuels cannot be certain that the response to a shortage might not include modest or significant reduction in the CI requirement for all obligated parties, thereby undermining the investment thesis for developing and deploying LC fuels. If a shortfall measured against established LCFS CI targets could lead to a temporary waiver of the LCFS and a sudden, overall contraction of the market for LC fuels, how can investors begin to assess the future market demand, much less the potential price the market will bear? Without reasonably sound market assessments, how can investors develop confidence regarding the potential for revenue? Absent confidence in revenue assessments, how can investors understand the potential for a technology or project to be profitable?

Concern about how ARB would deal with an LC fuel shortfall could lead to a self-fulfilling prophecy, whereby investors delay investments in LC fuel supply because they are concerned about what ARB would do in the event of a shortage and as a result, California experiences a shortage.

In order for the LCFS to be successful, ARB must develop a means to manage the market instability created by uncertainty about its actions. The best option is to put a long-term, transparent and predictable alternative compliance mechanism in place. An alternative compliance mechanism addresses how the program will operate in the event that an obligated party fails to meet its obligation with market-sourced fuels or credits. A well-designed alternative compliance mechanism must:

- Be fair to parties that successfully comply with their obligation under the LCFS as well as to parties that cannot comply because of limited availability of LC fuels.
- Ensure the stability of the LCFS program even as the market expansion of available LC fuels proceeds in a naturally unpredictable, uneven manner.
- Provide a clear, dependable signal to obligated parties and potential LC fuel investors about how ARB would act in the event of a supply shortfall so that parties can make efficient long-term investment decisions.

## 2. Alternative Compliance Schedule

There are essentially three options for addressing the pace of CI reductions in the event that one or more parties are unable to comply with their LCFS obligations. The compliance schedule can be:

- modified to enable compliance based on existing market-availability of LC fuels,
- modified to be less rigorous than the existing regulatory schedule but more rigorous than can be fully met with market-available LC fuels. (This would be combined with the establishment of an alternative compliance mechanism through, for example, the issuance or sale of credits to allow all parties to meet their current obligations), or
- kept unchanged. (This would be combined with the establishment of an alternative compliance mechanism through, for example, the issuance or sale of credits to allow all parties to meet their current obligations.)

The pros and cons of each option are discussed below.

Option A: Modify schedule to enable compliance based on existing market-availability of LC fuels.

Pro:

- Obligated parties would be able to comply with LCFS using existing/available fuel options.
- It would eliminate the risk of having insufficient LC fuel in the market to achieve compliance with the LCFS.
- Obligated parties would not need to make long-term risky investments in LC fuel supply because LC fuel obligations could always be met through purchases in the marketplace.
- There would be no basis for the public to view the LCFS as a tax.
- There would be no potential for unrealistic market pressures on obligated parties.

Con:

- The resulting relaxation in the LCFS compliance schedule could disadvantage parties that invest to comply with the existing LCFS schedule.
- It could undermine investment in innovative LC fuel technology.
- There may be no incentive for obligated parties to reduce the carbon intensity of California fuels.

Option B: Modify schedule to be less rigorous than the existing schedule but more rigorous than can be fully met with market-available LC fuels. (This would be combined with the

establishment of an alternative compliance mechanism through, for example, the issuance or sale of credits to allow all parties to meet their current obligations.)

Pro:

- Obligated parties would be able to comply with their LCFS obligations using either existing/available fuel options or purchased credits.
- The system would provide a clear market signal to obligated parties and LC fuel investors to reduce the CI of California fuels, enabling them to make economically rational choices about the supply and development of LC fuel options without being subject to political risk.
- The size of the alternative compliance credit market could be minimized.
- [It could be seen as a reasonable compromise between market realities and sustaining pressure for further reductions in CI.]
- It would support the creation of a viable credit trading market. Fully compliant parties could sell surplus credits to obligated parties seeking additional reductions for compliance.
- All parties would face a stable, transparent and predictable price signal in the event of a LC fuel shortfall that would not be subject to regulatory adjustment.
- Obligated parties and others should have both the confidence and incentive needed to make long-term investments in low cost future CI reduction options.

Con:

- It requires an alternative compliance mechanism that enables compliance for parties that have exhausted their market options, but have not yet met the standard.
- It could reduce the market pressure on obligated parties to find ways of meeting their LCFS targets.

Option C: Schedule remains unchanged. (This would be combined with the establishment of an alternative compliance mechanism through, for example, the issuance or sale of credits to allow all parties to meet their current obligations.)

Pro:

- It maintains clarity regarding the government's schedule and goal.
- It is simple to understand.

Con:

- It requires an alternative compliance mechanism that could enable compliance for parties that have exhausted their market options, but have not yet met the standard.

### 3. Alternate Compliance Mechanism

#### a. Opening program to other credits --- prepared by others

#### b. CARB Sale of Credits

##### i) Pros and cons of mechanism

A well-designed credit window during which ARB would make LC credits available to obligated parties would support the LCFS objectives in multiple ways. The pros and cons of this are discussed below.

##### Pro:

- It should enable obligated party compliance when market options (fuel or market-generated credits) are expensive or in short supply.
- It should motivate obligated parties to identify, invest in and secure LC fuel supplies that cost less than compliance credits purchased from the ARB.
- It should send a clear price and market demand signal to producers of and investors in LC fuels.
- It should create a competitive disadvantage to obligated parties that attempt to pass credit window compliance costs on to consumers at the pump.
- It eliminates CI waiver risk. CI waiver risk creates market distortions and inhibits investment in LC fuels.
- It operates equally well to sustain operability and political viability of the LCFS in the event of short- and medium-term shortages of LC fuel in the market.

##### Con:

- Depending on the price of ARB credits, it could be seen as incentivizing otherwise uneconomic LC fuels.

##### ii) Use of funds

There are a number of options for the use of funds generated through ARB sale of alternative compliance credits. Funds could be (A) deposited into State Treasury or specific government programs, (B) recycled to obligated parties, (C) recycled to LC fuel generators, or (D) used to purchase unused credits from LC fuel generators. The pros and cons of each option are discussed below.

##### Option A: Deposited into State treasury or specific government programs

In this option, funds generated through the ARB sale of credits are used for State purposes as either general revenue or for LC fuel program initiatives.

##### Pro:

- It could be popular with politicians or agencies.

Con:

- It could be seen as a tax. This could lead to lobbying for change, creating instability with respect to the future of LCFS.
- If treated as tax, could be passed on directly to consumers at the pump.

#### Option B: Recycle to obligated parties

In this option, funds generated through the ARB sale of credits are paid out to all obligated parties in proportion to (i) total fuel sales or (ii) level of compliance to LCFS prior to purchase of credits from ARB.

Pro:

- It should prevent the alternative compliance mechanism from acting as an indirect tax on the price consumers pay at the pump.
- It should be relatively simple to calculate recycle amounts.
- Option B(ii) would reward industry leaders that comply through market options (which generate a physical reduction in CI), at the expense of obligated parties that choose to rely on ARB credits (which do not generate a physical reduction in CI).
- Assuming the cost of ARB credits is appropriate (not too low), under Option B(ii) obligated parties could compete to pay the least (i.e., purchase the fewest number of credits from the ARB) and extract the most (i.e., receive the greatest amount of recycled funds).

Con:

- There would be no direct benefit to LC fuel producers; if obligated parties do not pass savings through to LC fuel producers the ACM may not encourage investment
- It could be seen as a paper exercise, without generating physical reduction in CI.
- Option B(i) would negate the purpose of the ARB sale of credits if all obligated parties follow identical strategies – for each obligated party, the amount received would be equal to the amount paid to purchase ARB credits.

#### Option C: Recycle to LC fuel generators

In this option, funds generated through the ARB sale of credits are paid out to LC fuel generators in proportion to CI reduction.

Pro:

- Rewards physical CI reductions.
- Compounds the value of market credits to obligated parties.
- Would reward parties who generate CI reductions directly (including non-obligated parties), at the expense particularly of obligated parties that neither produce nor utilize LC fuel available in the market.
- Investors in LC fuels benefit from increased demand for market versus ARB credits.

Con:

- Could be seen as a double incentive to producers of LC fuel, facilitating development of uneconomic LC fuels.

- More parties and steps involved, so likely more complicated to administer.
- Could be seen as an indirect subsidy to LC fuel suppliers

#### Option D: Purchase of unused credits from generators

In this option, prior to recycling funds, the ARB would hold a public tender for any available LC credits from generators.

##### Pro:

- Could be used with Option A, B or C to enhance the alternative compliance mechanism.
- Ensures market is working effectively to provide appropriate price signals to generators of CI reductions

##### Con:

- More parties and steps involved, so likely more complicated to administer.