



June 6, 2023

Cheryl Laskowski, Branch Chief
Low Carbon Fuel Standard Program
California Air Resources Board
1001 I St.
Sacramento, CA 95814

RE: AJW Comments on the May 23rd, 2023, Public Workshop on an Auto-Acceleration Mechanism

Dear Ms. Laskowski,

AJW appreciated the opportunity to present our recommendations for an acceleration mechanism during the May 23rd, 2023, LCFS workshop. To supplement our presentation with additional discussion, we are submitting a white paper outlining our recommendations in more detail.

Additionally, AJW strongly supports a step down in stringency of **six percent** on January 1, 2024, or as soon as possible, and strong 2030 compliance targets.

In reaction to CARB's presentation at the workshop, AJW believes that an annual assessment of triggering an acceleration mechanism is appropriate, regardless of whether the mechanism was triggered in the prior year or not. As drafted in the CARB presentation, pausing the assessment for a year if the mechanism was triggered in the year prior would likely not be responsive enough to the market. We recommend that CARB include a continuous annual assessment of a trigger.

These three tools (Acceleration Mechanism, step down, strong 2030 targets) will be necessary for the program to continue to spur innovation in alternative transportation fuels and ensure that the program is maximizing GHG reductions.

Sincerely,

Mary Solecki
Partner, AJW





ENHANCING OPPORTUNITIES FOR INNOVATORS

AJW-INC.COM

An Acceleration Mechanism for the Low Carbon Fuel Standard



June 2023



ACKNOWLEDGMENTS

AJW would like to thank the following for their time, contributions, and thoughts on this issue. This work was improved by their collective energy.*

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Laura Renger, California Electric Transportation Coalition
Sam Wade, Renewable Natural Gas Coalition
Will Faulkner, Carbon Acumen
Our AJW Colleagues

*-The views expressed in this document are solely those of AJW and are not attributed to any one of the above listed individuals or others AJW reached out to as part of developing this report.

INTRODUCTION

Over the past 10 years the LCFS has been tremendously successful in supporting the transition from petroleum to cleaner transportation fuels used in California including electricity, renewable diesel, biodiesel, renewable natural gas, lower carbon intensity ethanol, renewable hydrogen, and sustainable aviation fuel. These fuels have replaced petroleum, and in doing so, have reduced emissions of climate change pollutants as well as a myriad of toxic air pollutants that adversely impact communities. The LCFS has served as a catalyst for billions of dollars of investments in clean fuels and has proven to be a model for the world on how to reduce emissions in the transportation sector. The 2022 update to the Scoping Plan is the state's response to the need for a holistic strategy to achieve legislatively mandated greenhouse gas reduction targets including achievement of carbon neutrality by 2045. It demonstrated that there is no path to achieving the state's climate goals without strengthening the LCFS.

Several of the LCFS's features were designed to provide market certainty to support private sector investment into the clean fuels space. While CARB spent time developing and then adopting a Credit Clearance Mechanism to guard against market uncertainty in the event of an undersupply of credits, it has not developed a similar program contingency in the event of a credit oversupply. The existence of a credit glut would discourage the wider adoption of otherwise viable decarbonization activities. Today, the program continues to exceed carbon intensity (CI) reduction targets and has a growing credit bank that now stands at over 15 million credits – the credit bank has ballooned to the point where compliance with the program could be achieved for years without any additional clean fuels used in the state. The historical response to this issue has been to go through a new round of amendments to increase the stringency of the program. However, anticipating the magnitude of innovation associated with developing progressively cleaner fuels is exceedingly difficult. Since the market has consistently exceeded the CI reduction targets, the model of waiting for a new round of amendments has resulted in missed opportunities to reduce millions of tons of climate change pollutants.

In addition to tightening the stringency of the LCFS to achieve a minimum of 30 percent reduction by 2030 and considering a one-time step down in stringency, we recommend that CARB also work with stakeholders to develop a mechanism that dynamically responds in the event of future sustained and significant underestimation of CI reduction targets by further tightening the stringency. This mechanism, called an acceleration mechanism, would complement the updated overall stringency of the program, complement existing mechanisms to avoid credit shortfalls, and better ensure that opportunities to deliver additional reductions of carbon and air pollutants are not foregone. An acceleration mechanism would keep innovation, investment, and emission reductions moving faster than they would otherwise. An acceleration mechanism can be developed that provides clear metrics to trigger adjustments to the program as well as the necessary certainty for deficit and credit generators to plan accordingly. By incorporating an acceleration mechanism into the regulation, the program will provide the market with a clearer signal that investments in clean, low-carbon fuels will be rewarded, and that California will not leave climate change pollutant reductions “on the table” in the future.

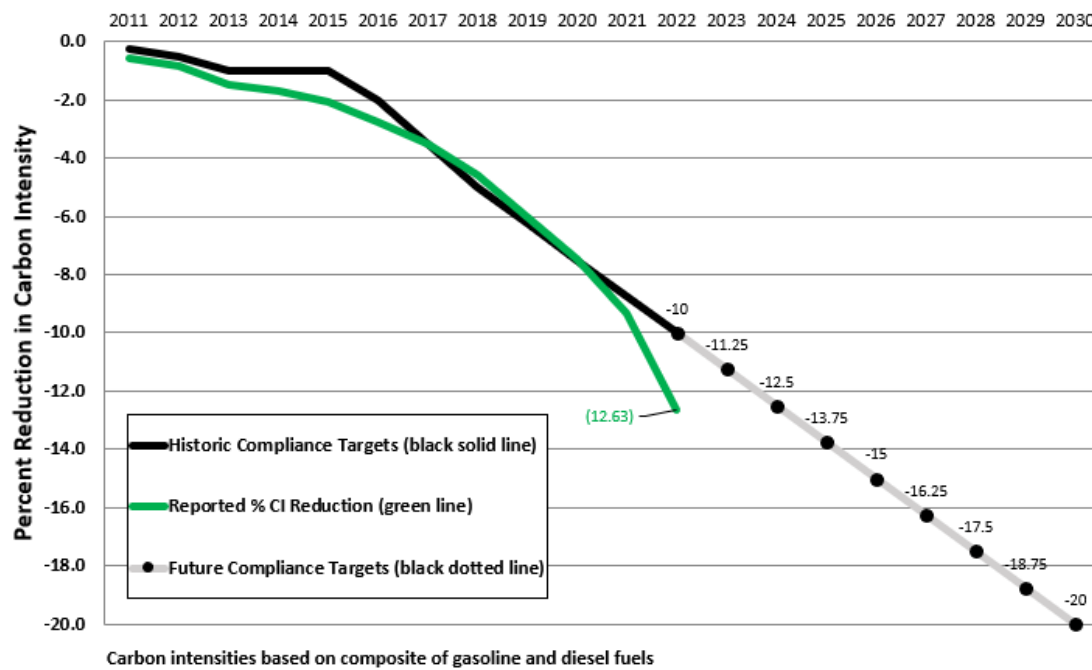
HISTORY OF THE LCFS

In 2006, the California Legislature passed Assembly Bill (AB) 32, also known as the Global Warming Solutions Act of 2006. AB 32 was the nation's first major climate change legislation, and Governor Arnold Schwarzenegger signed a subsequent Executive Order calling for a Low Carbon Fuel Standard as an early action under AB 32.

After years of program development, the rule was implemented in 2010. The regulation requires an incremental reduction in the CI of the California's transportation fuel pool (in the aggregate). The LCFS supports diversifying the transportation fuel pool by encouraging the production and use of lower carbon

fuels. The existing regulation requires a reduction in the CI of the state’s transportation fuel pool of 20% by 2030, but this is anticipated to change as part of the current rulemaking effort.

Regulated parties trade credits at a market price shaped by available supply and demand. Credit prices reflect the expected marginal cost of compliance and are subject to market and policy uncertainty regarding factors that are impacting the cost of producing cleaner transportation fuels for use in California. In 2016, the LCFS program instituted a soft credit price cap of \$200, subject to annual inflation adjustments. The cap is the maximum credit price in a “credit clearance market” - a provision of the program that aims to match LCFS credit holders with regulated entities who have insufficient credits to meet their obligation at the end of the compliance period (i.e., a calendar year). Obligations on remaining deficits after the end of the compliance period can be deferred up to five years with a 5 percent annual interest penalty.



Source: California Air Resources Board¹

Throughout the 10+ years that the LCFS has been implemented, the regulation has gone through four rulemaking processes that have strengthened the program, including the re-adoption of the LCFS in 2015 and 2018.² Currently, CARB staff are in the early stages of a new rulemaking process to amend the LCFS and are aiming to implement the updated regulation on January 1, 2024.

¹ LCFS Data Dashboard, <https://ww2.arb.ca.gov/resources/documents/lcfs-data-dashboard>

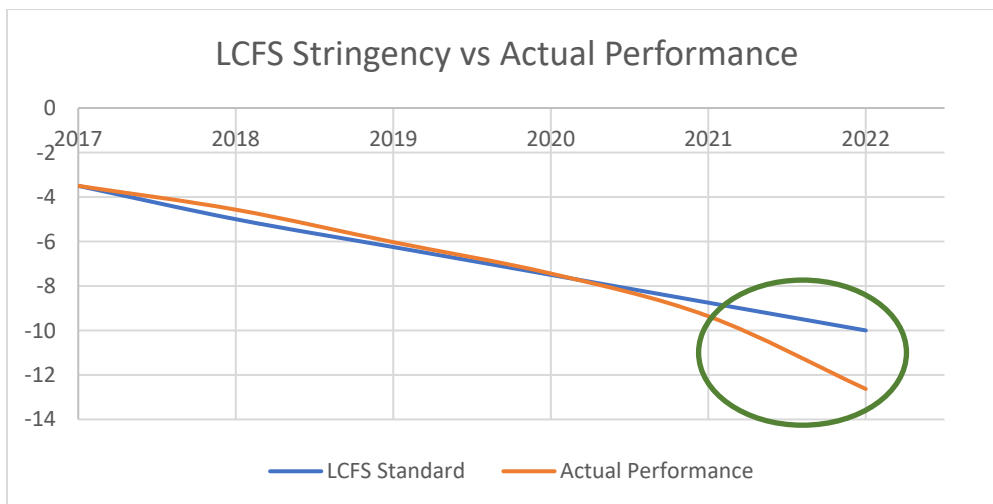
² <https://ww2.arb.ca.gov/our-work/programs/low-carbon-fuel-standard/lcfs-regulation>

NEED FOR AN ACCELERATION MECHANISM

As the LCFS was designed to spur innovation in alternative transportation fuels, it requires a mechanism that can help the program better match the pace of market change. Regulatory updates are typically cautious and infrequent in order to provide market certainty. As such, there is both room and the need to incorporate a mechanism, as part of the amendments to the LCFS, that auto-adjusts program stringency when there are clear signals that additional reduction opportunities are available. The establishment of the acceleration mechanism sends a clear signal to the market that investments in clean fuels will have greater certainty of being rewarded and better ensures that opportunities to realize reductions in GHG emissions are not foregone.

The acceleration mechanism is a refinement to the design of the LCFS and can be viewed as a complement to the proposed step down in program stringency. The acceleration mechanism is not intended to be a substitute for substantially increasing the stringency of the program in the current rulemaking. Recognizing that forecasting technological innovation and feedstock availability is difficult to do, the acceleration mechanism is intended to modestly adjust the stringency of the program when the market significantly outpaces the requirements. A well-designed feature that automatically adjusts to significant and sustained credit generation beyond the program's targets can enhance the certainty of the LCFS overall, thereby encouraging continued investments and innovation in clean fuels. When there is substantial and sustained overperformance of the program, innovation and investment in low- and zero-carbon fuels slows, the credit bank expands, and opportunities to further reduce GHG emissions are missed. Thus, the acceleration mechanism provides the market with greater certainty that if the program significantly builds a surplus of banked credits over a sustained period the stringency of the LCFS will automatically be adjusted (i.e., the CI target will be lowered) in a clear and predictable way based on publicly available data.

The chart below shows substantial overperformance of the program that starts in 2020 with the reduction in carbon intensity (expressed in terms of percent reduction relative to 2010) continuing to slope downward at a steep rate.



Data Source: California Air Resources Board³

³ LCFS Data Dashboard, Figure 1 <https://ww2.arb.ca.gov/resources/documents/lcfs-data-dashboard>



Principles that guide the development of an acceleration mechanism:

1. **Complementary** – An acceleration mechanism should fully support and complement the regulation, including plans to significantly increase stringency. The intention is for the acceleration mechanism to provide modest adjustments to the compliance targets when triggered.
2. **Simplicity** – The mechanism should strive to be easy to understand and anticipate when it is likely to be triggered.
3. **Transparency** – It is critical for rules and data that triggers the acceleration mechanism to be readily available to all stakeholders.
4. **Responsiveness** – The acceleration mechanism should only be triggered during periods of sustained and significant overperformance (i.e., CI reductions, credit generation, etc.) with the goal of providing additional GHG reductions.
5. **Lead Time** – Regulatory language and LCFS staff must provide ample lead time for planning whenever the acceleration mechanism is triggered.
6. **Resilient** – The mechanism is self-sufficient and can endure programmatic and market changes without significant adjustment.
7. **Certainty** – There must be clear rules and criteria in order to trigger the acceleration mechanism.
8. **Healthy Credit Bank** – A credit bank is an important backstop against increased stringency and short-term disruptions in credit generation. The acceleration mechanism should complement the role of an appropriately sized credit bank that supports planning for future increases in stringency and ramp-up periods for new, lower CI fuels coming to market.

KEY DESIGN QUESTIONS TO CONSIDER

At the outset of this project, AJW and other stakeholders posed many questions about how to approach the concept of an acceleration mechanism. Some of these questions yielded the principles above, and others pointed to the critical design considerations of a mechanism. These four key design questions guide the remainder of the recommendations and discussion. For each question that is considered, AJW has laid out the potential approaches that could be taken as well as the pros and cons of each option.

1. What is the basis for triggering the acceleration mechanism?
2. What duration of time should trigger the acceleration mechanism?
3. What is the magnitude of increased stringency?
4. What is the lead time for deficit and credit generators in the event the acceleration mechanism is triggered?

1. WHAT IS THE BASIS FOR TRIGGERING THE ACCELERATION MECHANISM?

DISCUSSION

There are many variations of metrics that could be used to trigger the acceleration mechanism. However, after considering the guiding principles, the list of candidates can be substantially slimmed down. The two most prominent categories for the basis of triggering the mechanism are credit-based or price-based. Factors that were considered for this question include: simplicity, ease of access to public data, overall goal of the LCFS, future deficit obligations (factoring that an appropriately sized credit bank is a feature of the program that supports smooth implementation of the program), and duration of program overperformance.

Within a credit-based trigger, there are many approaches that can be taken. Some of these approaches include, but are not limited to: the ratio of the cumulative credit bank to prior year deficits; the ratio of annualized credits to deficits; or cumulative banked credits that can support, for example, two years of compliance without any new low CI fuels being introduced into California. In order to capture a confluence of events that might impact credits, deficits, and the bank, it is possible that a combination of two tests should be applied. For example, analyzing credits over deficits would ensure that if credits start to grow more rapidly than deficits the mechanism is triggered, but only if the relative size of the credit bank exceeds a threshold that recognizes an appropriately sized credit bank is an important feature of the LCFS supporting effective implementation. A two-test approach would only trigger the acceleration mechanism if both tests reached the required threshold.

The biggest advantage of using a credit-based trigger is that it is transparent, as there is frequent public reporting of credit-related information on CARB’s LCFS webpage. Further, a credit-based trigger can be designed relatively simply. Additionally, a credit-based trigger is inherently less volatile than a price-based trigger and more closely aligns with CARB’s goal of reducing GHG emissions.

Approaches that could be taken in a price-based trigger include: a set price floor; using the weighted average price; or indexing to a percent below the Credit Clearance Mechanism. Based on conversations with several stakeholders, as well as review of comment letters from public workshops on potential amendments to the LCFS, a price-based trigger is the preferred option by many market participants (i.e., credit generators) over a credit-based approach. This preference, particularly held by stakeholders in the clean fuels space, is understood to be related to the fact that a price-based mechanism is more closely linked with the ability to attract and communicate with investors on financial terms and can represent a clearer signal to the market. However, a price-based approach may present more opportunities to manipulate the market, requiring additional protections that could further complicate the program. There is also the potential for setting the price too low: an overly low price may not trigger the mechanism at times when additional carbon reduction opportunities are available and could result in an ineffective acceleration mechanism.

Credit-Based		
Pros	Cons	Potential Approaches
<ul style="list-style-type: none"> • Transparent & simple for agency • Less volatile than price • More closely aligns with CARB goal of reducing CO2 	<ul style="list-style-type: none"> • Less transparent for market participants 	<ul style="list-style-type: none"> • Formula(s) that incorporate Bank, Credits, and Deficits • Cumulative Credit Bank + current credit production can cover the next 2 compliance years • Cumulative Credit Bank to deficits

Price-Based		
Pros	Cons	Potential Approaches (use settlement data in LRT)
<ul style="list-style-type: none"> • Easy to communicate to market participants and investors • Could generate more market investment • Market participant preference 	<ul style="list-style-type: none"> • Potential for setting price too low • More opportunities for manipulation 	<ul style="list-style-type: none"> • Price floor • Weighted average price • Indexed to % below Credit Clearance Mechanism

RECOMMENDATION

Based on AJW’s stakeholder conversations with clean fuel providers, auto manufacturers, utilities, environmental NGOs, and academia, assessment of principles, and calculations, AJW recommends a credit-based approach. We do not, however, have a singular recommendation for which calculation to utilize. After running some simple assessments and backcasting to see how various triggers might have behaved in the program, the leading three approaches we analyzed appeared very similar in their responsiveness and performance.

Passing at least two tests might be most appropriate to weigh both the credit bank in relation to the current deficit pool as well as the credit generation rate relative to current deficits, as each approach has a different goal. Assessing the credit bank in relation to deficits will demonstrate if the bank is healthy enough in comparison to the current compliance schedule to weather any credit generation disruptions. However, evaluating the credit generation rate against deficits will assess the current pace of market activity and whether innovation is outstripping the pace set by the program.

Below is a table showing how these triggers may have performed recently. AJW recommends additional modeling to sufficiently determine the best set of calculations CARB should utilize.

Backcasting Three Potential Trigger Approaches							
			2018	2019	2020	2021	2022
	Formula	Trigger					
Cumulative Credit Bank	(B)		8,918,202	8,439,052	8,343,187	9,568,451	15,069,408
Total Credits	(C)		11,310,472	14,934,921	15,364,400	20,186,741	26,712,553
Total Deficits	(D)		12,366,566	15,487,415	15,488,232	18,864,647	21,225,967
Trigger Approaches							
1) Credit Bank to Deficits	(B/D)	>0.70	0.721	0.545	0.539	0.507	0.710
2) Annualized Credits to Deficits	(C/D)	>1.0	0.91	0.96	0.99	1.07	1.26
3) Credit Bank Size		>12M credits	NO	NO	NO	NO	YES

2. WHAT DURATION OF TIME SHOULD TRIGGER THE ACCELERATION MECHANISM?

DISCUSSION

Various time horizons can be considered as the basis for triggering the accelerating mechanism. Factors to examine while addressing this question are the potential for market manipulation, lost opportunities for GHG reductions, ability of the market to plan for and anticipate the mechanism being triggered, and seasonality in fuel use. The minimum time horizon that should be considered is three quarters. Any lesser time would undercut the goal of certainty and could have potential distortions associated with the seasonality in fuel use. In contrast, any duration that is more than one year is not responsive enough to the market and will prolong a situation in which the mechanism should be triggered to support delivering additional reductions in GHG emissions.

A duration of one year, or four quarters, would be the simplest approach for both market participants and CARB. This option captures seasonality issues and minimizes opportunities for market manipulation. Assessing the duration of time on a fixed calendar year / annual basis would be simple and straight forward when compared to a rolling four quarter basis. A rolling four quarter approach quickly becomes too variable with inconsistent lead times for compliance change implementation dates, as well as additional calculations that need to account for different levels of stringency if all the four quarters are not in the same calendar year. A notable downside is that a calendar year assessment would result in a greater lag time before the compliance adjustment is implemented, resulting in lost opportunities to realize GHG reductions.

Four Quarters / One Year		
Pros	Cons	Potential Approaches
<ul style="list-style-type: none"> Simplest option for CARB and stakeholders Catches seasonality issues Minimizes manipulation 	<ul style="list-style-type: none"> Greater lag time before compliance adjustment (Ex: From Q1 2022 overperformance, 12–22-month delay before adjustment in Jan 2024) Lost opportunity to realize GHG reductions 	<ul style="list-style-type: none"> Calendar year (simple) Rolling 4-quarter

Other Options	
Three Quarters	More than One Year
<ul style="list-style-type: none"> Minimum that should be considered Less time that this would undercut the goal of certainty Issues with seasonality in fuel use 	<ul style="list-style-type: none"> Not responsive enough to the market

RECOMMENDATION

Balancing the factors described above, AJW recommends a duration of one calendar year/four quarters for triggering the acceleration mechanism. We discuss the merits of the two approaches (annual assessment and rolling four-quarter) within Question 4.

3. WHAT IS THE MAGNITUDE OF INCREASED STRINGENCY?

DISCUSSION

The magnitude of increased stringency is perhaps the most important component of the acceleration mechanism. The factors that should be considered in the design of the mechanism’s magnitude include: simplicity, size and presence of a potential step down in 2024, the final compliance target for 2030 and beyond, balancing the increase sufficiently to cause a reaction in the market, and whether the mechanism should make only modest adjustments or be more aggressive.

Small percentage adjustments in stringency, such as 0.5%, 1.0%, or a variable factor based on the magnitude of recent overcompliance, would allow the mechanism to make measured and incremental adjustments on the margins of the overall program. With the presence of a strong step down, these small adjustments are reasonable auto-adjustments for the program in the short-term. In the outer years of the program, however, these incremental modifications may become too proportionately small to affect change in the market. For example, a 0.5% jump in stringency at a 15% reduction target is relatively larger and more meaningful than the same jump at a 30% reduction target. To address this issue, the program would need to be amended to reflect greater jumps in magnitude during the outer years.

An alternative option would be to jump forward a compliance year. Rather than increasing the stringency by a small percentage when the mechanism is triggered, the program would move forward (e.g., skip) one year in the compliance schedule. There are optical and practical benefits to this approach (e.g., meeting programmatic targets a full year in advance; additional GHG reductions), and it is easy to explain and understand. Two factors to consider are whether the increase is continuous (meaning the increase ripples into future years) or if a “freeze” in the following year is needed (e.g., 2025 CI reduction targets bumps to the 2026 target, but the 2026 target remains as originally planned, meaning there are two years with the same required reduction in the CI). A freeze would send a one-time signal to allow for market reaction to the increased stringency prior to additional increases.

A continuous increase would enable all future years to automatically jump forward, which sends a strong year-over-year signal. It may be advantageous to limit the number of times the mechanism could be triggered repeatedly before the Board should intervene. For example, if the mechanism is triggered three consecutive times, CARB may want to consider Board approval before the third jump in stringency is implemented to ensure that it is the correct course of action. It is important to note that the nature of a compliance schedule jump with a continuous increase may grow to multiple percentage points.

Percentage		
Pros	Cons	Potential Approaches
<ul style="list-style-type: none"> With the presence of a step down, a small adjustment in the short-term is reasonable 	<ul style="list-style-type: none"> After 2030, may be too proportionally small to affect change 	<ul style="list-style-type: none"> 0.5% 1.0% Blended / variable

Compliance Year Jump		
Pros	Cons	Potential Approaches
<ul style="list-style-type: none"> Optically preferable Simple 	<ul style="list-style-type: none"> Leads to a large jump, especially in outer years of program 	<ul style="list-style-type: none"> Continuous increase with limits Freeze



RECOMMENDATION

Based on our analysis, AJW recommends the continuous compliance schedule jump with clear backstops where the Board may consider adjustments to the program in the event the accelerator is triggered more than two consecutive years, for example. The continuous increase option will allow CARB to maintain aggressive reduction targets in the program, but provides a backstop in case it needs to be reevaluated. Additional modeling in this space will prove useful for CARB to finalize its proposal.

4. WHAT IS THE LEAD TIME FOR DEFICIT AND CREDIT GENERATORS IN THE EVENT THE ACCELERATION MECHANISM IS TRIGGERED?

DISCUSSION

Providing sufficient time for stakeholders to plan for an additional increase in program stringency will be critical to the success of the acceleration mechanism. One option would be to assess the previous four quarters on a rolling quarterly basis. This route would allow for faster responsiveness to an outsized credit bank and attempts to minimize market manipulation. However, assessing on a rolling quarterly basis leads to variable notification lead times for obligated parties and variable responsiveness depending on the quarter that the mechanism gets triggered. The table below identifies this variability.

Lead Times Under Rolling Quarterly Assessment					
Quarter	Data Available	Trigger Decision	Advance Notice Prior to Change	Compliance Target Change Date	Lag time since quarter ends until benchmark change
Q1	July 31	Aug 31	4 months	Jan 1	9 months
Q2	Oct 31	Nov 30	1 months	Jan 1	6 months
Q3	Jan 31	Feb 28	10 months	Jan 1	1 year 3 months
Q4	Apr 30	May 31	7 months	Jan 1	12 months

An annual assessment proves simpler; it would adhere to the annual benchmark change and gives consistent market notice. This option could easily be wrapped into the same announcement schedule that the Credit Clearance Mechanism (CCM) follows, where the Executive Officer announces by May 15 that the mechanism was triggered based on prior year data. With a January 1 benchmark adjustment, this provides market participants with over seven months of official notice, however most market participants will likely be aware of the coming notice if the acceleration mechanism is transparent, simple, and certain. While an annual Q2 assessment would result in a slower responsiveness to issues that originally arose in the prior year Q1 or Q2, this downside is offset by the need for simplicity, consistency, and an acceleration mechanism that is not overly reactive.

Annual 4 Quarter Assessment		
Pros	Cons	Approach
<ul style="list-style-type: none"> Simple Builds on CCM framework Updates would adhere to annual compliance curve schedule changes 	<ul style="list-style-type: none"> Slow responsiveness to issues from Q1 or Q2 	<ul style="list-style-type: none"> Follow CCM schedule: EO announces that the mechanism was triggered by May 15. Implement on Jan 1 of following year.

Rolling 4 Quarter Assessment		
Pros	Cons	Approach
<ul style="list-style-type: none"> Allows for faster responsiveness Attempts to minimize manipulation 	<ul style="list-style-type: none"> Variable lead time Variable responsiveness 	<ul style="list-style-type: none"> On a quarterly basis, assess 4 quarters back

RECOMMENDATION

Balancing these pros and cons, AJW recommends the annual assessment after the complete prior year’s data is submitted on March 31. This would yield a May 15 announcement and Jan 1 benchmark adjustment in the following year.

SUMMARY OF RECOMMENDATIONS

The figure below illustrates the summary of recommendations from AJW.



After evaluating the utility and approaches of an acceleration mechanism, AJW continues to believe that an acceleration mechanism can be designed in accordance with the listed principles, and it will benefit the program and the state’s decarbonization goals. In addition to the recommended design approaches that AJW laid out in this paper, there are many other approaches which warrant consideration. However, in our assessment the principal design questions yield a few leading structures, with fewer details in flux. Decisions on these details will rely on the final 2030 compliance targets, the magnitude of the step down, as well as modeling of the different avenues that can be taken.

AJW looks forward to continuing to support CARB’s work to design and implement an acceleration mechanism.

APPENDIX A

THE ROLE OF THE LCFS CREDIT BANK

1. **Whole Market Buffer** – It serves as a buffer in case credit generation falls significantly below the credit generation of the prior year(s), meaning compliance is largely dependent on the existence of the bank.
2. **Stringency Tightening Buffer** – It serves to provide market liquidity to manage temporary supply challenges if/when credit generation increases do not keep exact pace with stringency tightening in the near- to medium- term.
3. **Long-Term Compliance Management Tool** – It enables market participants to accumulate and hold any volume of credits they might deem helpful for any length of compliance time horizon.

WHOLE MARKET BUFFER AKA DISASTER INSURANCE

RATIONALE

As household budgets grow, we are wise to keep larger sums of cash in reserve to cover car payments or mortgages in case of job loss. The same principle should apply here – as deficit generation grows, credit reserves should be allowed to grow proportionately with total deficits.

HOW IT SHOULD OPERATE

The bank should be allowed to grow in proportion to total annual deficits generated (e.g., set the bank cap at 30% of prior annual deficits)

PROS

This approach enables regulated parties to plan for any unforeseen crisis that resulted in large shut-downs of credit generating operations – but did not affect deficit generation (COVID reduced both in tandem)

CONS

This could result in a large and growing volume of credits – unneeded for compliance except in extraordinary circumstances – that might drag credit prices down and hamper/slow investment in new credit generating activities.

STRINGENCY TIGHTENING BUFFER

RATIONALE

Credit generation comes from a diverse, heterogeneous set of sources and is unlikely to fall prey to sudden collapse. Credit generators work continuously to expand in anticipation of growing demand – ensuring a pipeline of new credit generating activities regularly coming to market. Therefore, the bank’s primary function should be to smooth short-term mismatches between growth rates of credit generation and credit demand.

HOW IT SHOULD OPERATE

The bank should be capped at a number representing the need for additional credits (e.g., above the prior year's credit generation) needed to satisfy medium time-horizon (e.g., 24 months) program stringency tightening.

PROS

This would keep credit supply and demand within a reasonable and predictable balance, sending a clear market signal to credit generators that supplies will need to grow steadily to match demand while allowing for market fluctuations within parameters.

CONS

This would leave the LCFS program and market participants exposed to black swan events that result in sudden, large drops in the rate of credit generation.

LONG-TERM COMPLIANCE MANAGEMENT TOOL

RATIONALE

As with corporate or personal wealth management, individual decisions should not be hampered by government rules. To the extent that an LCFS market participant would like to accumulate a long-term supply of LCFS credits in reserve, they should be allowed to do so in any volume.

HOW IT SHOULD OPERATE

No limit would be set on the credit bank.

PROS

Aggressive accumulation – if they occurred – of credits not needed for near- or medium-term compliance would create a credit demand that outpaces the regulation and would result in faster GHG emission reductions.

CONS

If a party or parties that had been aggressively accumulating surplus credits stopped buying or started selling aggressively, it would result in market turmoil. The concern that large surplus demand buyers could quickly become sellers would raise significant confidence concerns for investors in new credit generation projects.