

Low Carbon Fuel Standard Workshop

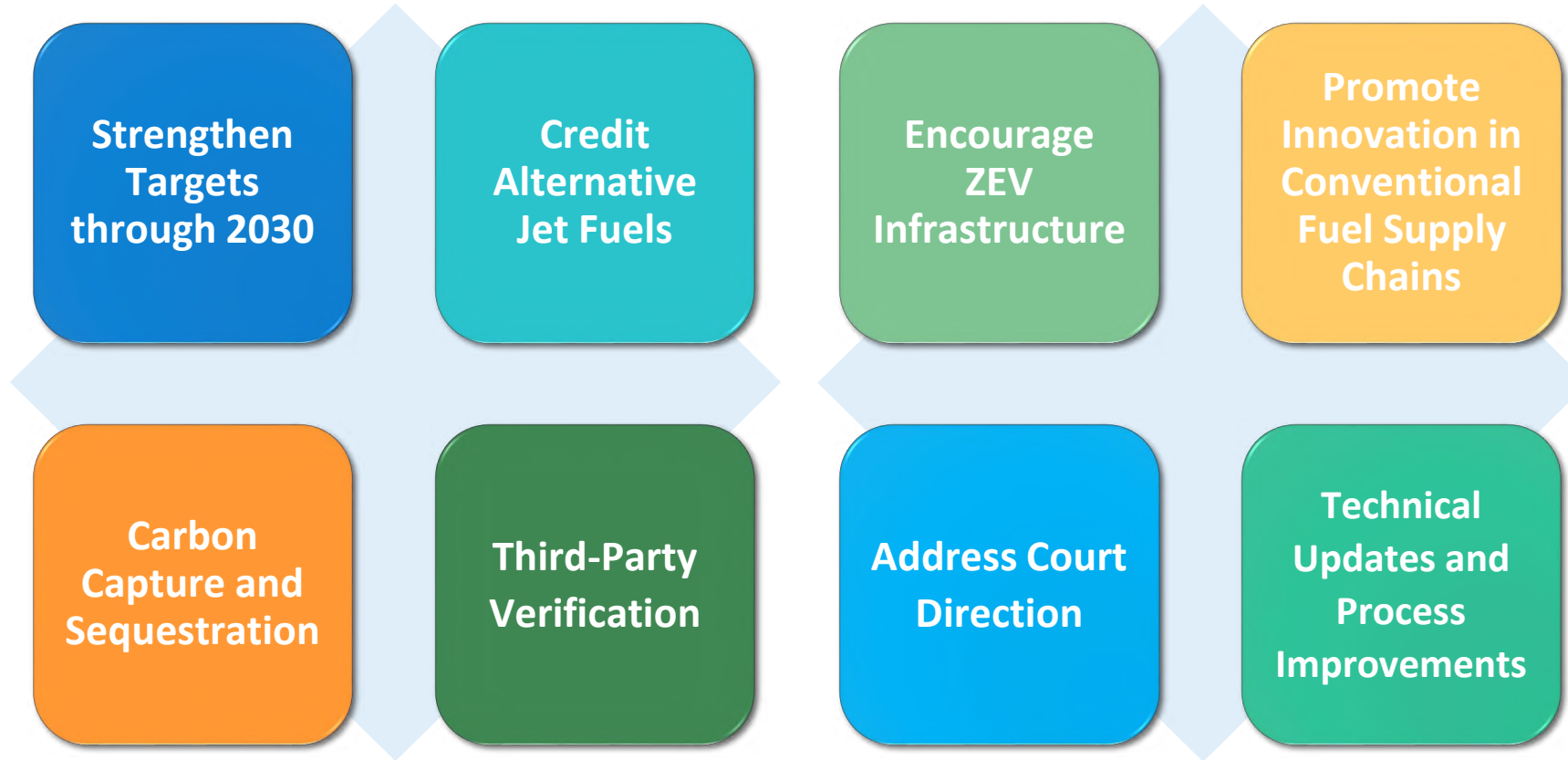


APRIL 5, 2019
SACRAMENTO, CA

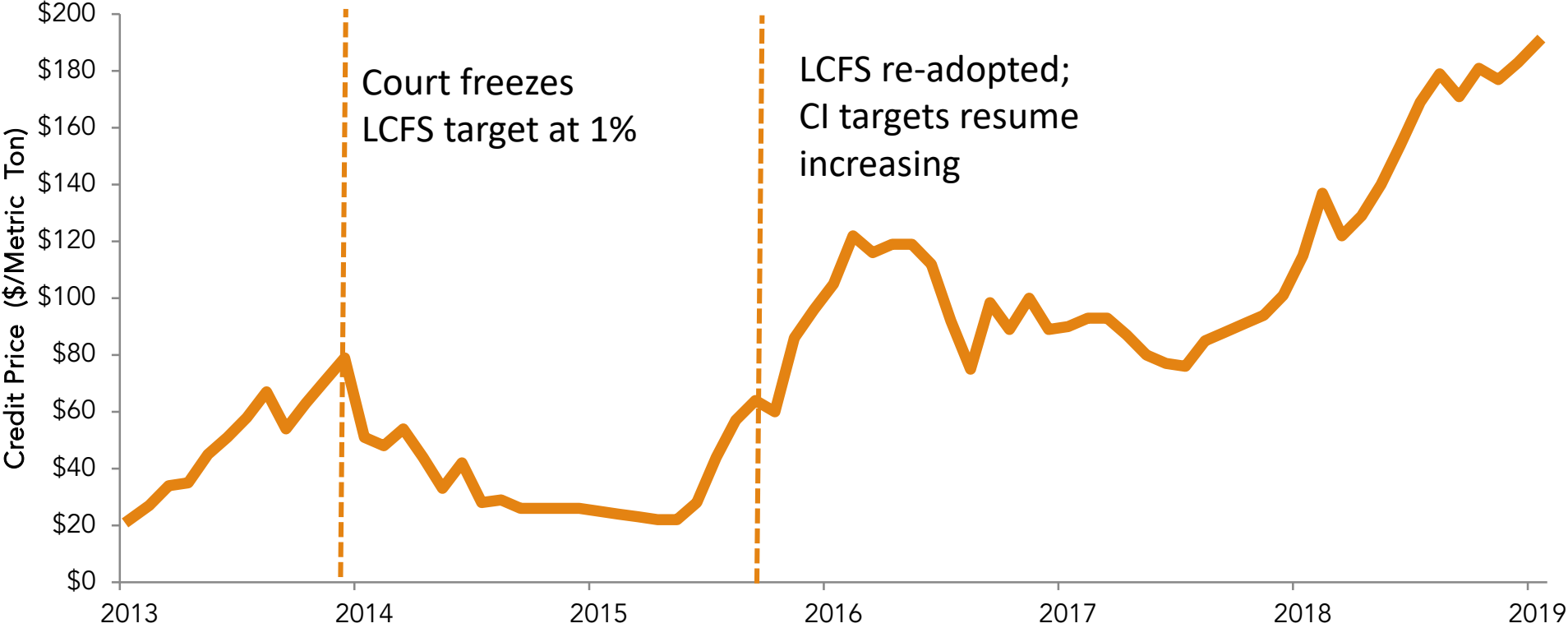
Workshop Agenda

- Status of LCFS
- Brief Overview of Current Cost Containment Provisions
- Staff Concept for Discussion

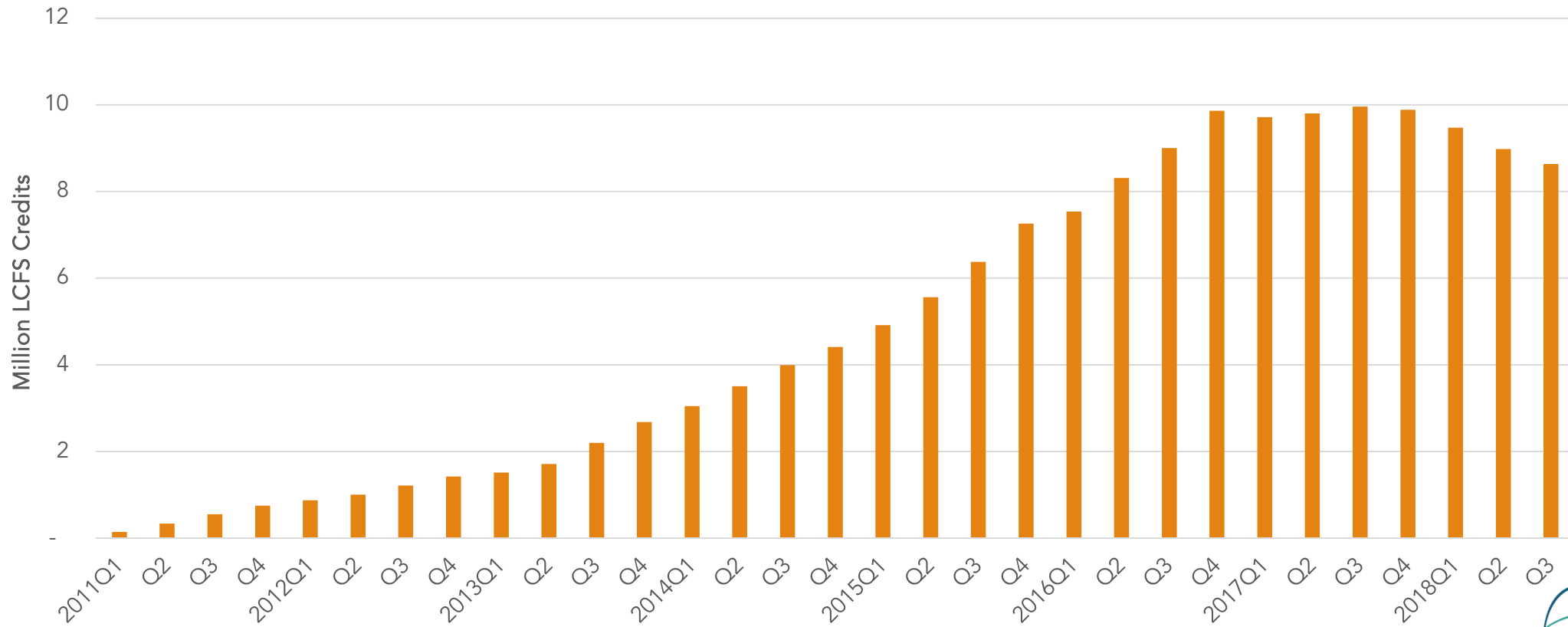
2018 Adopted Amendments



LCFS Credit Price Trends



Sizeable Outstanding LCFS Credit Bank



Board Resolution 18-34

“[T]he Board directs the Executive officer to monitor the cost containment provision of the Low Carbon Fuel Standard, including the Credit Clearance Market, and to propose technical adjustments through future rulemaking if needed to further strengthen the cost containment features of the program.”

Brief Overview of Current Cost Containment Provisions

Credit Clearance Market

See Handout

Credit Clearance Market Deficit Banking

- If the entity still has an unmet obligation after the CCM, or if a CCM is not held because credits are not pledged, then the remaining deficits are placed in an Accumulated Deficits account and the entity remains in compliance
- Accumulated Deficits accrue interest at a rate of 5 percent annually
- Accumulated Deficits must be repaid within 5 years

Reinforcing the Cost Containment Mechanism

- Some stakeholders have expressed concern that LCFS credit shortages might lead to higher compliance costs and adverse consumer impacts
- Staff believes existing mechanisms for deficit banking, CCM, and increased credit generation opportunities will be sufficient to manage compliance and costs
- Potential rulemaking would establish firm maximum for LCFS credit prices in all circumstances and bolster cost containment in the program

Potential Outcomes of a Price Cap

- Deters potential market manipulation
- Limits potential adverse impacts on consumers
- Reduces potential credit price volatility
- Marginal additional innovation could potentially be lost with weaker market signal
- Potentially reduce benefits to low carbon fuel producers

Staff Concept for Discussion

Staff Concept: Principles

- Strengthen cost containment features of the program
- Enable parties subject to CCM to fully retire all outstanding deficits annually
- Limit credit price volatility in the regular LCFS credit market
- Maintain the current stringency of the LCFS program in terms of estimated GHG reductions between 2020 and 2030

Staff Concept: Potential Price Cap in Daily Market

- Currently, the LCFS does not cap the price of credit transactions outside of the credit clearance market (CCM)
- Potential amendment would limit all credit transactions between entities to no more than the CCM maximum price (\$200 in 2016 \$ indexed for inflation)

Staff Concept: Advance Credits

- Currently, if insufficient credits are pledged to meet the total annual deficit obligation, deficit banking will occur
- Potential amendment will allow CARB to issue Advance Credits to meet the total annual deficit obligation



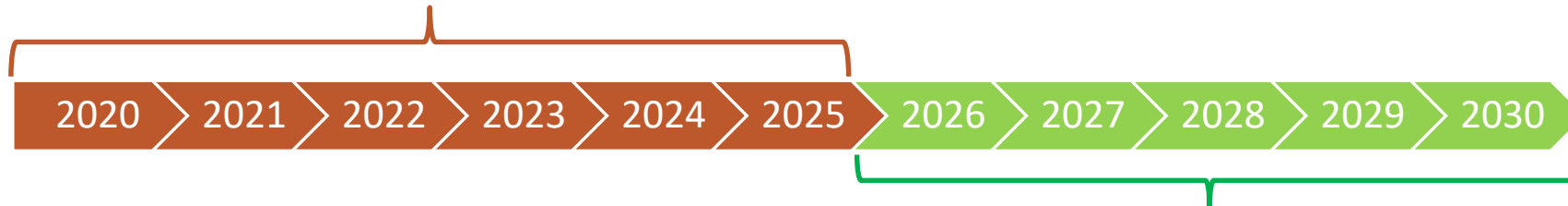
Staff Concept: Advance Credits

- Advance Credits are proposed to be LCFS credits that will be awarded in a current year and repaid by reducing future credit awards from base non-metered residential electricity
- Recipients of Advance Credits will be required to offer those credits in the current year's CCM

Staff Concept: Advance Credits

- Credits would be advanced from the period of 2026 – 2030 to meet any unmet annual deficit obligation for the period of 2020 – 2025

Advanced credits may be generated



Advanced credits are repaid

- The number of credits that may be advanced would be limited to a maximum amount of 10 million credits, cumulatively

Staff Concept: Advance Credits

- Advance Credits will be repaid by reducing future utilities' base residential credit generation for electricity using the following schedule:

Year	% of total advance credits to be repaid
2026	5%
2027	10%
2028	20%
2029	30%
2030	35%

- Each utility's future base electricity credits will be reduced by the same percentage



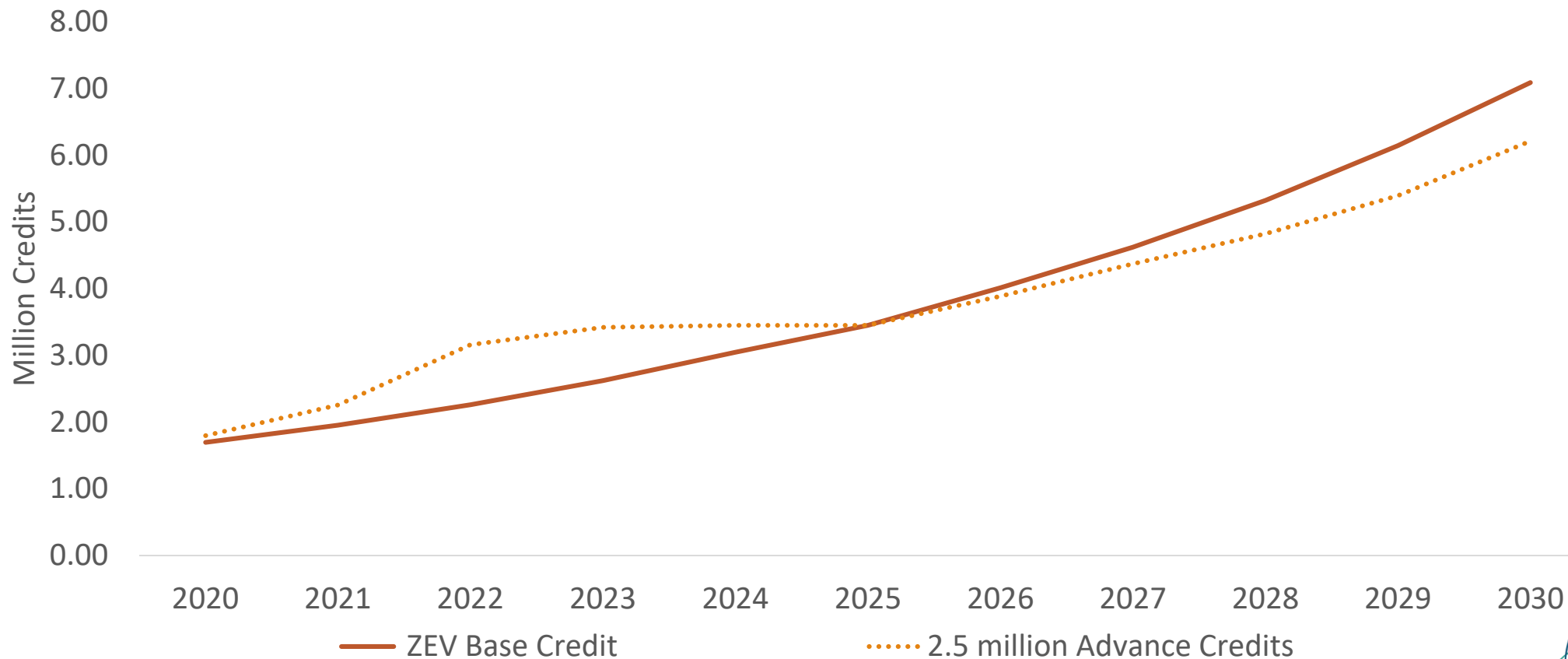
Staff Concept: Advance Credits

- Unlikely to be accessed, but available if needed
- Credit value to be focused on benefiting disadvantaged communities
- Fuel reporting entities participating in two consecutive CCMs will be required to provide a report to CARB
 - Detailed plans to meet annual obligation in the future
 - Reports would be publicly posted for transparency

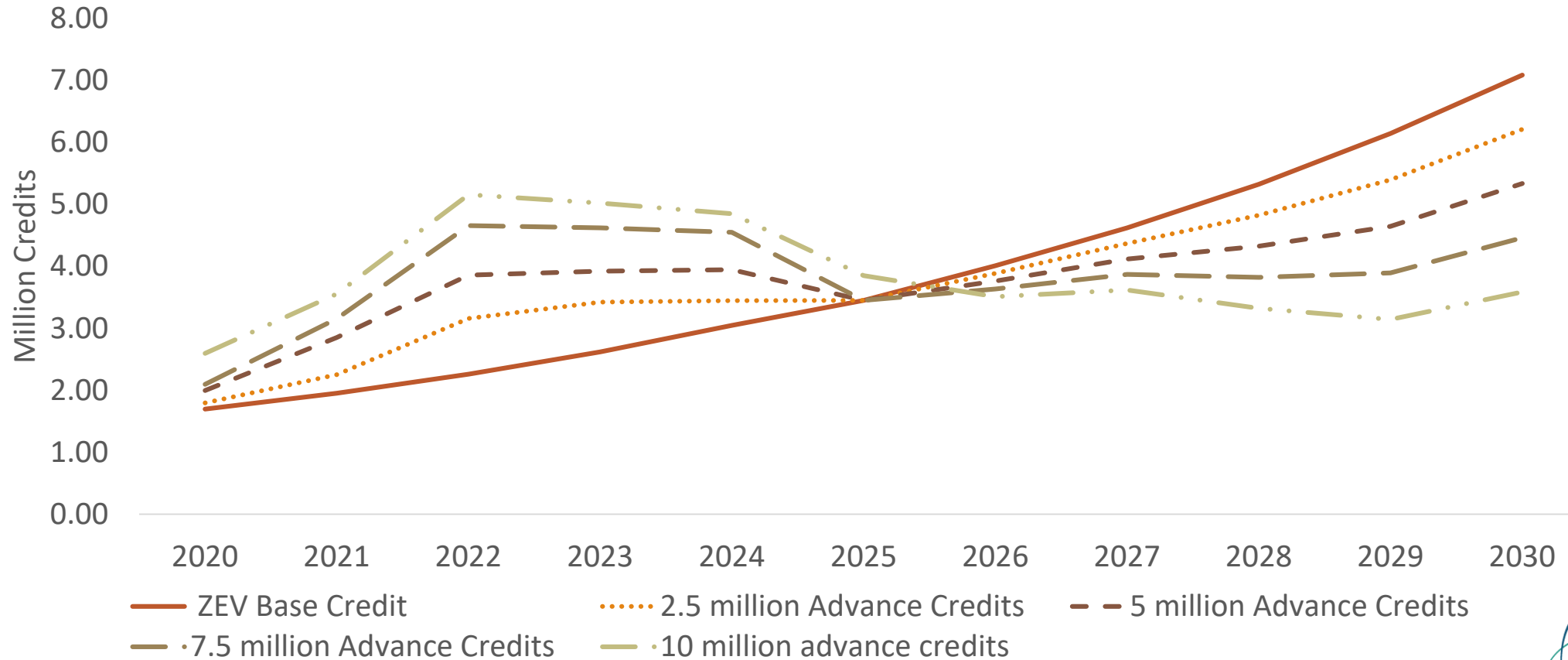
Illustrative Scenario

- Demonstrate credit generation from the non-metered residential electricity sector with and without Advance Credits
- Advance credits ranging from 2.5 to 10 million
- Scenario 1 assumes 3 million EVs by 2030 and Scenario 2 assumes 5 million EVs by 2030

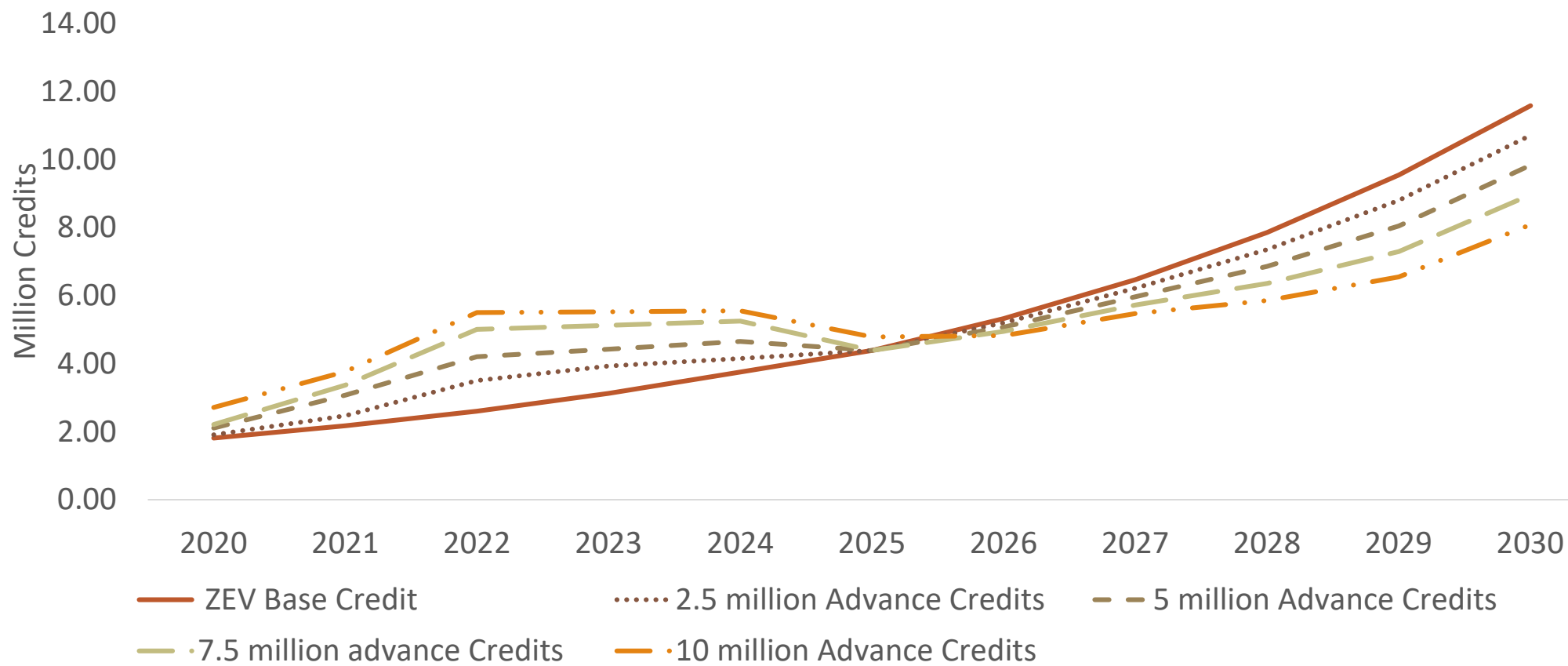
Illustrative Scenario 1



Illustrative Scenario 1



Illustrative Scenario 2



Discussion and Questions

Thank You

Please submit feedback by April 22 @

LCFSworkshop@arb.ca.gov

