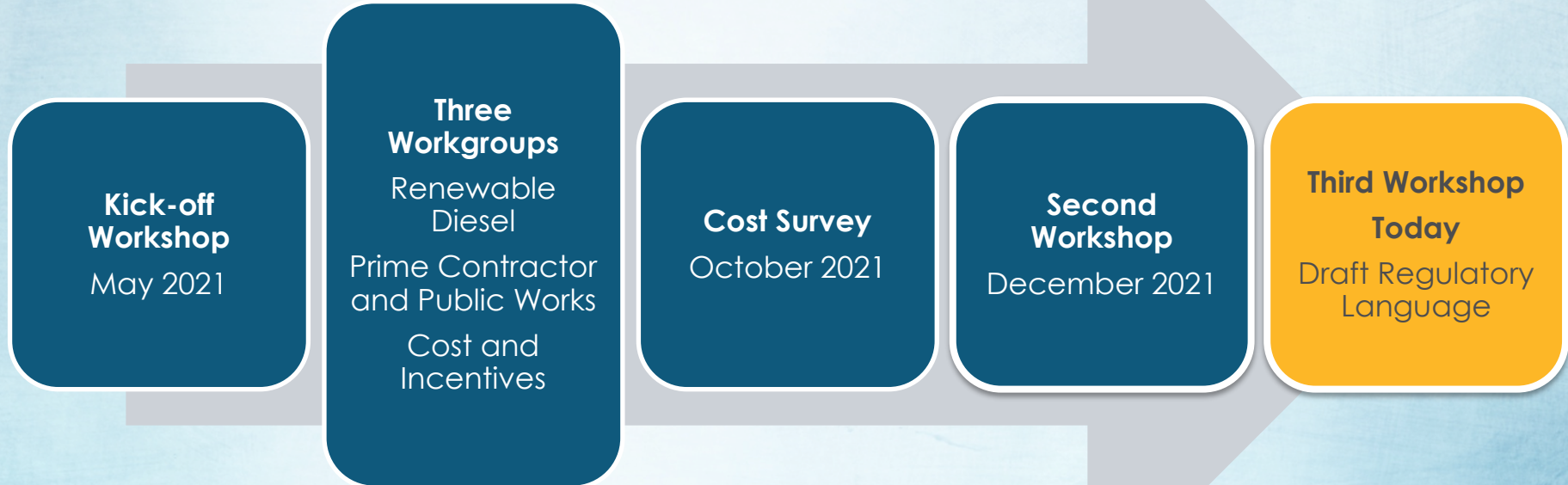




# Potential Amendments to the In-Use Off-Road Diesel-Fueled Fleets Regulation

Third Workshop  
May 16, 2022

# Public Meetings to Date



# General Concept

## Tier Phase Out

Fleet Size	Tier 0 Ban	Tier 1 Ban	Tier 2 Ban
Large	2024	2026	2028
Medium	2026	2028	2030
Small	2028	2030	2032

## Vehicle Adding Bans

Cannot Add	Year
Tier 3	On Adoption
Tier 4i	2024 L and M 2028 S
Non-CA Cert	2028

- Renewable Diesel required in all fleets starting January 1, 2024 with flexibility if unavailable
- Requirements for prime contractors and public works awarding bodies


# Feedback After December Workshop

Received feedback during the presentation and met with many individuals

Proposing modifications to December's concept based on this feedback

# Potential Modification: Tier Phase Out Terminology


Feedback: The term “operational backstop” was not clear.



Response: Changed term to “Tier Phase Out” for clarity. Did not change phase in years or performance requirements.

# Potential Modification: Tier 4 Interim Vehicle Adding

Feedback: The vehicle adding ban on Tier 4 interim could overly disrupt the resale of used Tier 4 interims.



Response: Allow ultra-small fleets (500 hp or less) to add Tier 4 interims through January 1, 2035.

# Potential Modification: Definitions Clarity

Feedback: The definitions for prime contractor and public works awarding body was not clear.



Response: Updated definitions.

# Prime Contractor and Public Works Awarding Body Definitions

**(67) “Prime Contractor”** means the entity that holds the contract for a project, contracting directly with the awarding authority or the owner of the project to oversee all or part of the project in which vehicles subject to this regulation are used.

**(69) “Public Works Awarding Body”** means any public agency (state, county, city, school board, water district, etc.), or official thereof, that awards or enters into a contract for public works for the erection, construction, alteration, repair, or improvement of any public structure, building, road, or other public lands or improvement of any kind.



# Potential Modification: Prime Contractor Requirements

Feedback: The prime contractor requirements in the December concept were too onerous.



Response: Prime contractor requirements have been adjusted.

# Prime Contractor: Fleet Level Verification

- a. Prior to hiring a fleet subject to this regulation, a prime contractor must obtain a copy of the fleet's Certificate of Reported Compliance, as described in section 2449(n), and can only hire compliant fleets and can only allow compliant fleets on the jobsite.
- b. The prime contractor must collect new Certificates of Reported Compliance, as defined in section 2449(n), for all fleets subject to this regulation that are doing work on a project for the prime contractor on June 1 of each year for the duration of each project for which the fleet is doing work.
- c. The prime contractor must retain all records they collect under this regulation in accordance with section 2449(i)(1), either electronically or in hard copy, for a minimum of three years after project completion.

# Prime Contractor: Noncompliant Fleets

- a. The prime contractor must report to CARB, in a format determined by CARB, any fleet subject to this regulation that the prime contractor discovers does not have a Certificate of Reported Compliance as defined in section 2449(n). The report must include, at a minimum, the fleet name, email, address, and phone number; DOORS ID; and the location of the job site.
- b. If non-compliant vehicles are observed by the prime contractor, such vehicles must be reported to CARB, in a format determined by CARB, including, at a minimum, the responsible party's name and business name; vehicle information, such as make and model; and the location of the job site.

# Prime Contractor: Signage at Jobsite

- f. The prime contractor must prominently display in lettering larger than size 14-point type, in a place where work is to be performed and at each jobsite, information regarding the applicability of this regulation and the telephone number and web address of CARB's off-road programs.

# Potential Modification: Public Works Awarding Bodies


Feedback: The public works awarding body requirement to update reporting within 5 days of any changes was onerous.



Response: Removed this requirement so changes to public works projects do not need to be reported to CARB.

# Potential Modification: Renewable Diesel Availability

Feedback: Concerns with the availability of renewable diesel.




Response: Updated the language that describes the process for renewable diesel unavailability.

# Renewable Diesel Flexibility Language

(3) If renewable diesel is unavailable to a portion of a fleet through its normal refueling methods, those vehicles for which renewable diesel is unavailable are not required to comply with Section 2449.1e(1). If at any point a fleet asserts its inability to comply with section 2449.1(e)(1) due to this unavailability, the fleet must have documentation showing the unavailability of renewable diesel and their attempts to obtain renewable diesel. This documentation may include communications from fuel providers, contract bids, or maps of fueling stations near a job site. A fleet's normal fueling methods shall include such factors as job site, storage site or retail station refueling. Refueling methods shall not refer to a specific distributor or brand of fuel. Fleets must make reasonable attempts to obtain renewable diesel, at a minimum, on a quarterly basis or when vehicles move to a new job site.

# Potential Modification: Rental Fleets and Renewable Diesel

Feedback: Concerns with how the renewable diesel requirement would overlay with rental fleets.



Response: Added a provision describing rental fleet's obligation relative to the renewable diesel requirement.



# Rental Fleets and Renewable Diesel

(4) Fleets that solely rent vehicles to other entities must include language in their rental contract that the recipient of the rented vehicle must comply with the renewable diesel requirements in section 2449.1(e). Such fleets that include such language in their rental contracts will not be held liable if a rented vehicle under their ownership is not compliant with section 2449.1(e) as a result of the renter's actions, but the fleet must report to CARB the entity that rented the vehicle and did not comply with section 2449.1(e).

# Other: Emission Control Labels

**(2) Emission Control Label** – If a fleet observes that the emission control label is no longer visible or readable for any reason, the fleet must contact the manufacturer within 10 days and request a replacement emission control label be sent to the fleet. Once the replacement label is received, the fleet must then affix the label to a location in accordance with title 13, CCR, section 2424(c)(1)(B), (c)(2), or (c)(3), as applicable, and such that the label is readily visible as defined in title 13, CCR, section 2424(e).

# Other: Two Engine Vehicles Clarity

vehicle. For purposes of the tier phase out provisions in section 2449.1(c), if a two-engine vehicle is subject to this regulation, under section 2449(b), the vehicle cannot be allowed to operate if either of the vehicle's engines are subject to the tier phase out schedule outlined in section 2449.1(c).

# Question and Answer Period

# Potential “Compliance Flexibility for Fleet Wide Transition to Zero-Emissions (ZE)”

## Concept

- Allow a pathway if fleets would rather invest in system wide/fleet wide transition to ZE rather than purchase T4f

## Potential Requirements

- Fleets would submit a ZE transition plan and the regulation would define the necessary components of the plan
- CARB would define clear metrics for review/approval of the plan
- If approved, the fleet would not need to meet the tier phase out timeline, but there would be a backstop phase out to ensure turnover if the fleet does not complete the plan

# Questions for Stakeholders



What should the minimum requirements for a fleetwide transitional change be?

What components should be included in the plan?

What metrics should be used for CARB's review of the plan?

What timeline and milestones should be expected?

# Update: Potential Statewide Emissions Reductions

Potential Amendment Provision	NOx/PM Reduction in tpd (2025)	NOx/PM Reduction in tpd (2031)	NOx/PM Reduction in tpd (2037)
Tier Phase Out and Vehicle Adding	3.9 / 0.2	4.8 / 0.3	2.2 / 0.1
Low-Use Changes (T0 backstop in 2036)	0	0	1.4 / 0.1
Renewable Diesel Requirement	2.6 / 0.5	1.3 / 0.2	0.5 / 0.1

# Cost Analysis Update

- Incorporated industry cost numbers provided in 2018 and converted to 2020 dollars
- Used compliance pathway results from survey, presented at December workshop
- Included costs associated with Tier 4 final engines:
  - DPF cleaning
  - Diesel exhaust fluid
- Administrative costs associated with new prime contractor and public works awarding bodies



# Cost Update: Equipment Cost Estimates

Engine hp	Average New Tier 4 final cost	Used Tier 4 final cost
25-49 hp	\$55,978	\$16,828
50-74 hp	\$87,008	\$32,823
75-99 hp	\$118,973	\$37,788
100-174 hp	\$175,583	\$62,173
175-299 hp	\$320,343	\$128,175
300-599 hp	\$738,519	\$124,538
600-749 hp	\$1,232,760	\$168,222
750-9999 hp	\$1,675,618	\$869,249

# Summary of Annualized Costs for the Standardized Regulatory Impact Assessment (SRIA)

## Preliminary Total 2023-2038

Estimated total cost:  
\$1.9 billion

## Preliminary Cost-Effectiveness

Cost per weighted ton\*:  
\$22,400/ton

\*Reductions in NOx + ROG + 20 x PM divided by cost

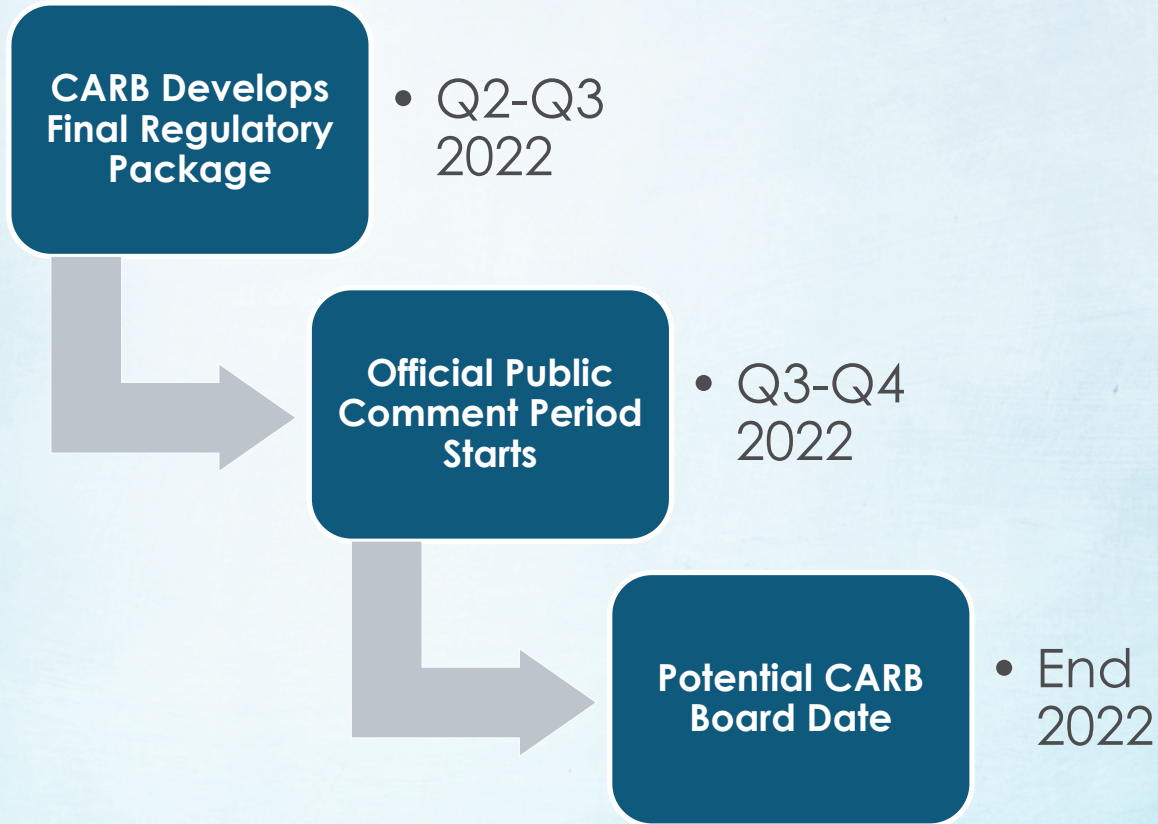
Year	Total Amortized Costs (rounded values)
2023	\$400,000,000
2024	\$389,000,000
2025	\$515,000,000
2026	\$476,000,000
2027	\$687,000,000
2028	\$218,000,000
2029	\$264,000,000
2030	\$76,000,000
2031	\$109,000,000
2032	-\$159,000,000
2033	-\$138,000,000
2034	-\$202,000,000
2035	-\$179,000,000
2036	-\$206,000,000
2037	-\$178,000,000
2038	-\$153,000,000

# Summary of SRIA Health Benefits

Total potential health benefits from 2024 to 2038 due to the implementation of the currently proposed amendments

Health Metrics	Benefit
Premature Death	574 fewer
Hospitalization for cardiovascular illnesses	83 fewer
Hospitalization for respiratory illness	99 fewer
Emergency room visits for asthma	278 fewer
Total valuation of avoided adverse health outcomes	\$5.76 billion

# Next Steps



# Contacts

## Rulemaking

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