

Advanced Clean Fleet Regulations

LOS ANGELES COUNTY INTEGRATED WASTE MANAGEMENT TASK FORCE



JUNE 16, 2022

Presentation Overview

- Background on ACF
 - ❖ Fleet Targets
 - ❖ Public Comments
- Pathway for Waste Haulers
 - ❖ RNG and SB 1383 Procurement Requirements



ACF Regulation Overview

Sections

- § 2013 State and Local Government Fleets
- § 2014 Drayage Trucks
- § 2015 High Priority and Federal Fleets ← Refuse Trucks
- § 2016 100 % ZEV Sales by 2040



Key Milestones

- May 18, 2022 Standardized Regulatory Impact Assessment (SRIA)
- Early September 2022 45 Day Rulemaking Package
- October 2022 Board Recommendation



Table 16. High Priority Fleet Vehicle Assumptions

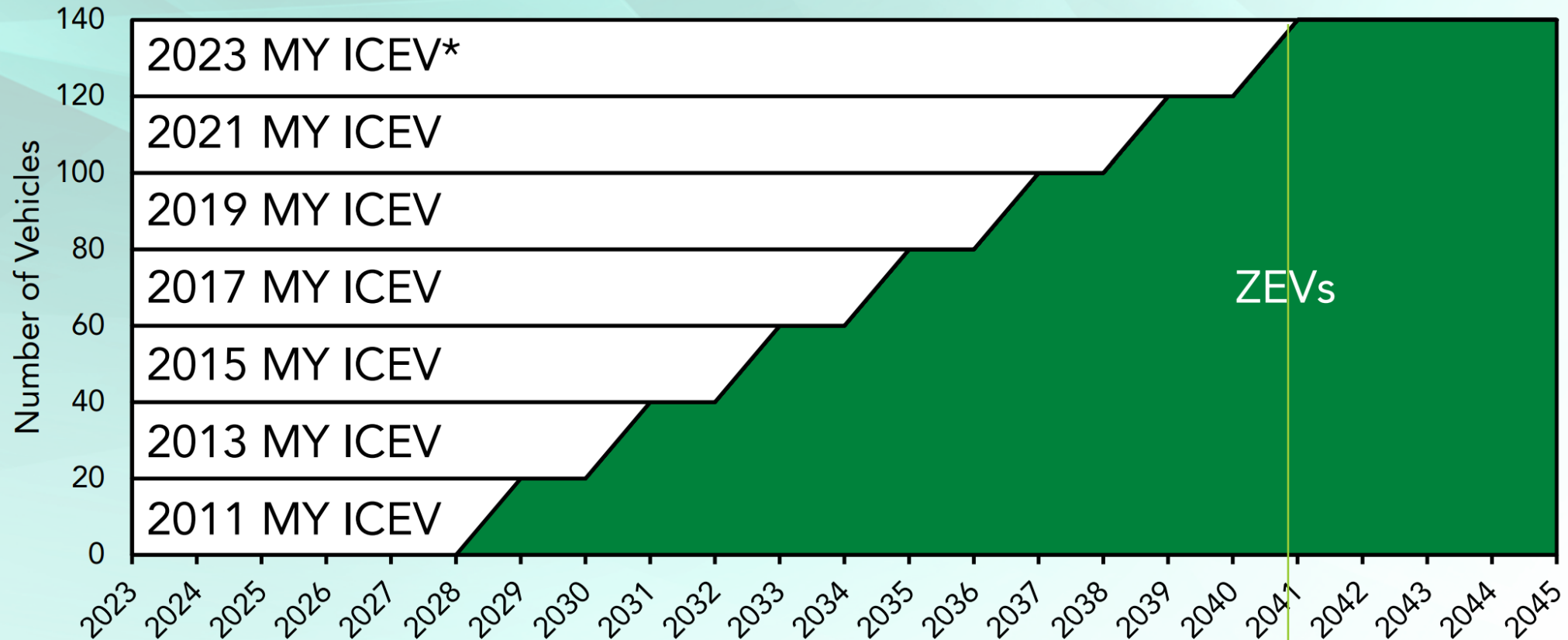
Vehicle Category	Representative Vehicle
Group 1 - Class 2b-3	Class 2b Cargo Van
Group 1 - Class 4-5	Class 5 Walk-in Van
Group 1 - Class 6-7	Class 6 Box Truck
Group 1 - Buses	Class 5 Cutaway Shuttle
Group 1 – Yard Tractor	Class 8 Yard Tractor
Group 2 – Class 2b-3	Class 2b Pickup
Group 2 – Class 4-5	Class 5 Service Truck
Group 2 – Class 6-7	Class 6 Bucket Truck
Group 2 – Class 8	Class 8 Dump Truck
Group 2 – SWCV	Class 8 Refuse Packer
Group 2 – Buses	Class 8 Motorcoach
Group 2 – Tractors	Class 8 Day Cab Tractor
Group 3 – Tractors	Class 8 Sleeper Cab Tractor
Group 3 – Specialty	Class 8 Bucket Truck

Table A: ZEV Fleet Milestones by Milestone Group and Year

Percentage of vehicles that must be ZEVs	10%	25%	50%	75%	100%
Milestone Group 1: Box trucks, vans, buses with two axles, yard tractors, light-duty package delivery vehicles	2025	2028	2031	2033	2035 and beyond
Milestone Group 2: Work trucks, day cab tractors, buses with three axles	2027	2030	2033	2036	2039 and beyond
Milestone Group 3: Sleeper cab tractors and specialty vehicles	2030	2033	2036	2039	2042 and beyond

§ 2015
High Priority and Federal Fleets
Group 2 -SWCV

Model Year Schedule Example

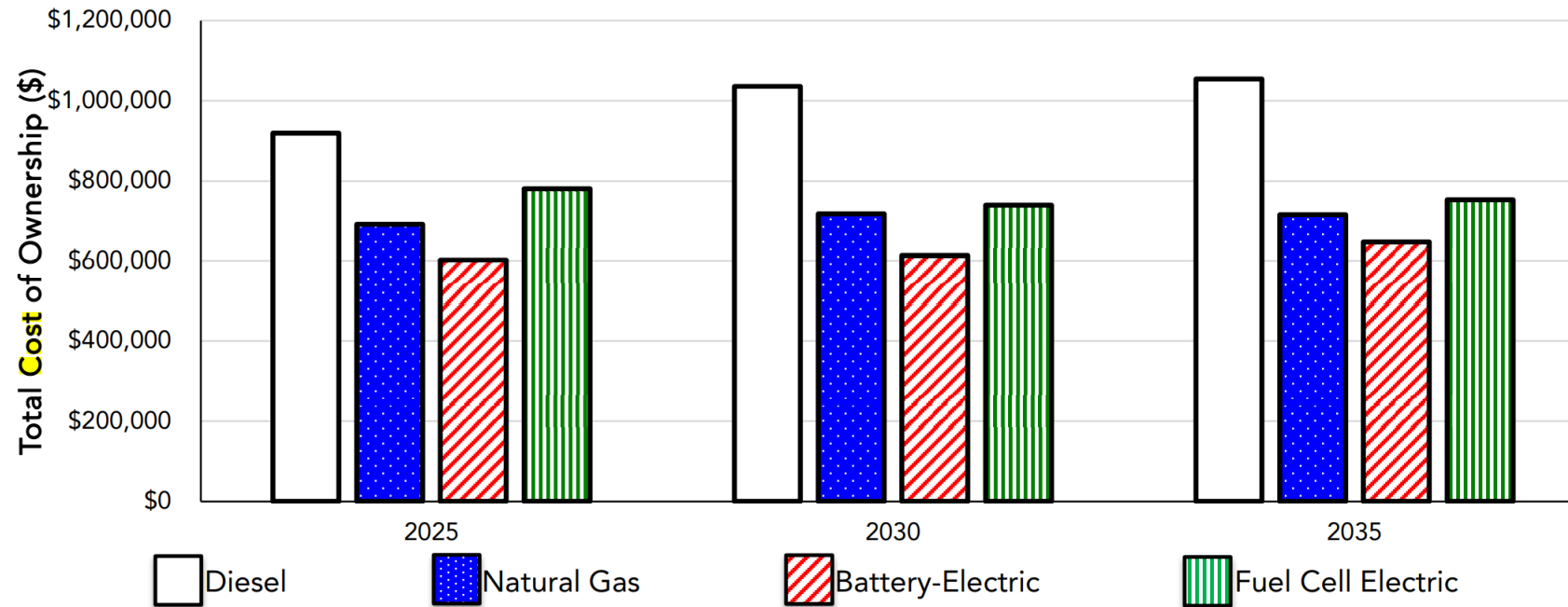


Assume fleet holds vehicles until the end of their useful life at 18 years

*ICEV is an internal combustion engine vehicle

True Cost of Ownership

CARB Analysis – Class 8 Refuse Packer TCO



Informal Comments

SB-1383 (Lara, 2016)
Short-lived climate
pollutants: methane
emissions: dairy and
livestock: organic
waste: landfills.

SB-1383 (Lara, 2016)
CalRecycle Regulations



SB 350 (De León,
2015) Clean Energy
and Pollution
Reduction Act of
2015

AB 841 (Ting, 2020) Energy:
transportation electrification:
energy efficiency programs:
School Energy Efficiency
Stimulus Program

Availability, Duty Cycles, and One-to-one Replacement

Heavy-Duty Vehicles

Manufacturer	Model	Weight Class	Availability	Battery (kWh)	Range (mi)
BYD	8R	Class 7-8 Rigid	2021		75
Daimler	Freightliner eM2	Class 7-8 Rigid	2021	325	230
Dennis Eagle	eCollect	Class 7-8 Rigid	2021	300	
Enride	Pod	Class 7-8 Rigid	2022/2023		112
Kenworth	K370E	Class 7-8 Rigid	2021	282	100, 200
Lion Electric	Lion8 Tandem	Class 7-8 Rigid	2021	336	170
Lion Electric	Lion8 Refuse	Class 7-8 Rigid	2021	336	130
Lion Electric	Lion8 Bucket	Class 7-8 Rigid	2021	336	
Nikola	Refuse	Class 7-8 Rigid	2023		150
Peterbilt	520EV (Refuse)	Class 7-8 Rigid	2021	308-420	60-90
SEA Electric	Ford F-750	Class 7-8 Rigid	2021	138	170
SEA Electric	Isuzu FTR	Class 7-8 Rigid	2021	138	200
SEA Electric	Refuse	Class 7-8 Rigid	2021	138, 220	
Volvo	VNR Electric Straight Truck	Class 7-8 Rigid	2021	264	150
Volvo Group	Mack Trucks LR Electric	Class 7-8 Rigid	2021		
BYD	8TT	Class 7-8 Tractor	2021	409	175
Daimler	Freightliner eCascadia	Class 7-8 Tractor	2022	550	250
Hino	XL Series	Class 7-8 Tractor	2022		

Electric Vehicle Market Status
- Update

April 2021



Stranded Assets



Useful Life of a Truck vs Fueling Infrastructure

Electric Grid and Infrastructure Reliability



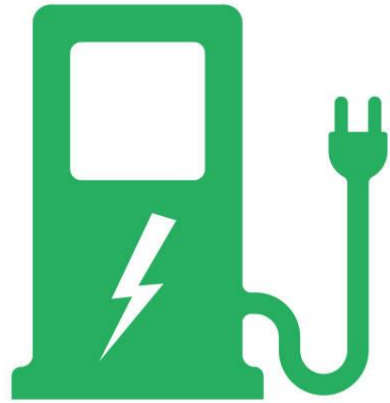
Public Safety Power Shut-offs

Draft ACF Regulations Near-term Strategy



Until 2035, fleet operators may purchase an NZEV **if** no ZEV is available

SB 1383 (Lara, 2016) Procurement Requirement



A Pathway for SB 1383-compliant RNG fuel for Waste Hauling Fleets

Questions?



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