

Red Sticker Regulatory Proposal Workshop

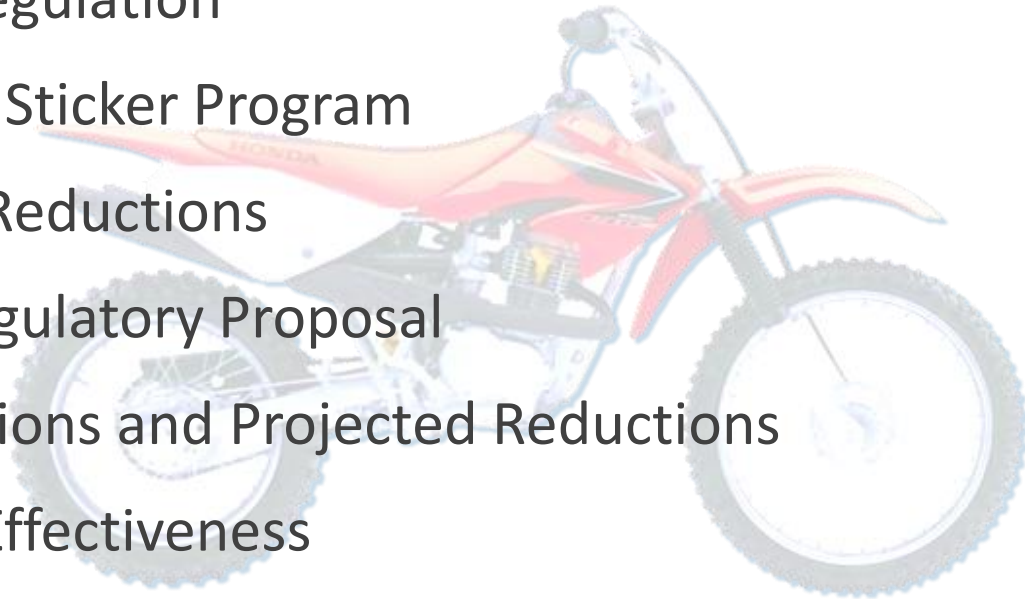
MAY 16, 2018 – EL MONTE

MAY 17, 2018 – SACRAMENTO



Outline

- Purpose of CARB Regulation
- Status of CARB Red Sticker Program
- Need for Emission Reductions
- Key Elements of Regulatory Proposal
- Uncontrolled Emissions and Projected Reductions
- Evaluation of Cost Effectiveness
- Rulemaking Timeline and Next Steps



Why Are We Here?

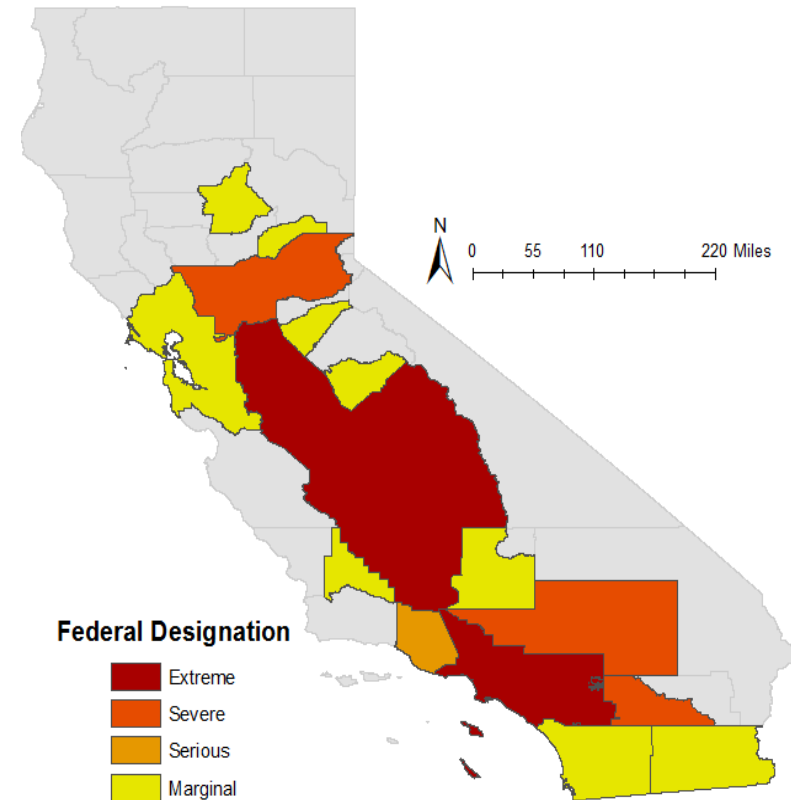
- California has the worst air quality in the nation
- CARB develops regulations to comply with the federal Clean Air Act requirements
- This regulation will help California obtain the emission reductions needed for ozone attainment
- CARB's proposed regulations for Red Sticker will help satisfy commitments set in California's State Implementation Plan



State Implementation Plan (SIP)

- SIP outlines plan for compliance
- SIP requires reductions from all categories, including mobile sources
- Examples of mobile sources regulated by CARB include cars, trucks, lawn mowers, off-road recreational vehicles, and boats

California 8-Hour Ozone Non-Attainment Areas
(2008 Standard)



OHRV Regulatory History



OFF-HIGHWAY
MOTORCYCLE (OHMC)



ALL-TERRAIN
VEHICLE (ATV)

1998: CARB creates
Red Sticker Program

2013: CARB adopts
evaporative standards;
Board directs staff to conduct
Red Sticker assessment

1994: CARB adopts 1st
exhaust standards

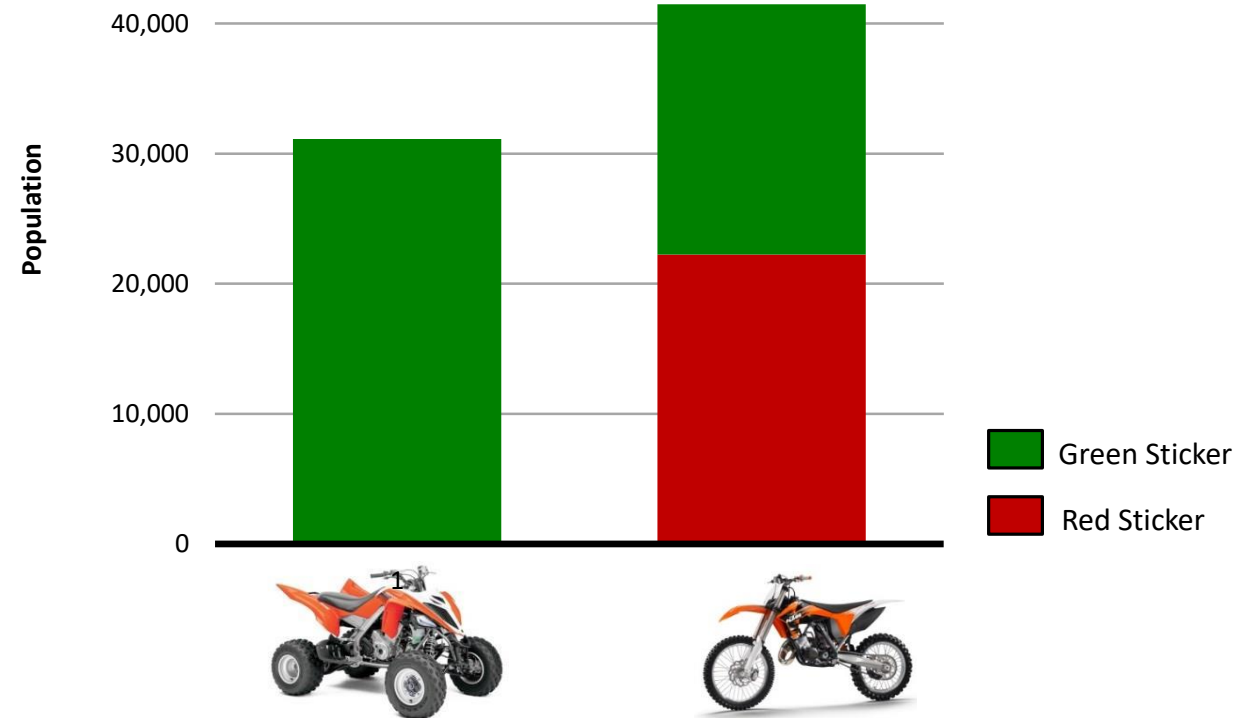
2006: U.S. EPA adopts
exhaust and evaporative
emissions standards
defines competition

2017: Board directs staff to
sunset Red Sticker Program

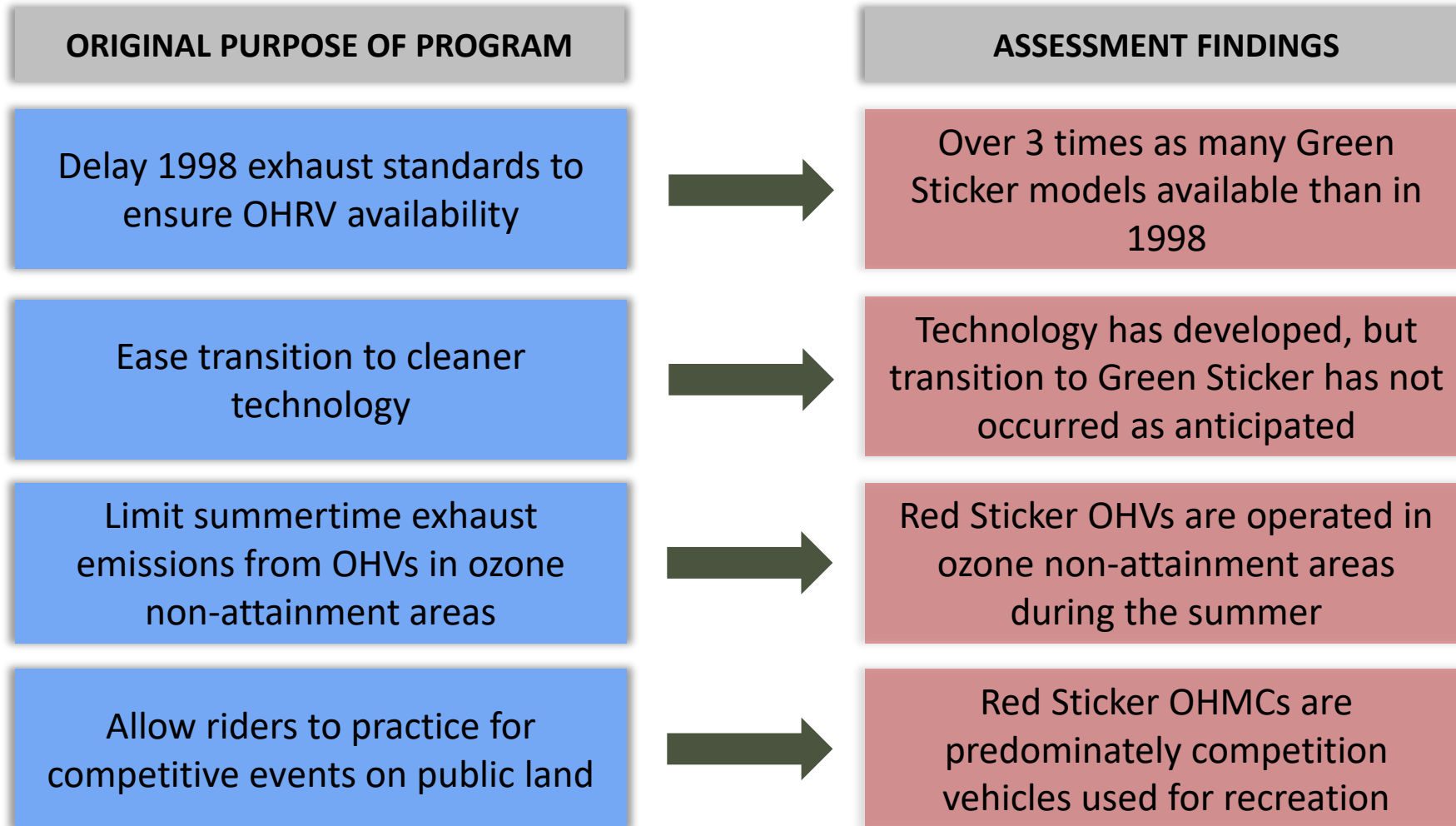
Almost All Red Stickers Are OHMCs

- CARB's regulation applies to all off-road motorcycles (OHMC) and all-terrain vehicles (ATV) that are certified according to section 2412(f) (Red Sticker)
- According to certification data for MY2012-2016, most Red Sticker vehicles are OHMCs
- The focus of the proposal is on OHMCs

Green and Red Sticker Registration Type (MY 2012-2016)



Intent Of The Red Sticker Program

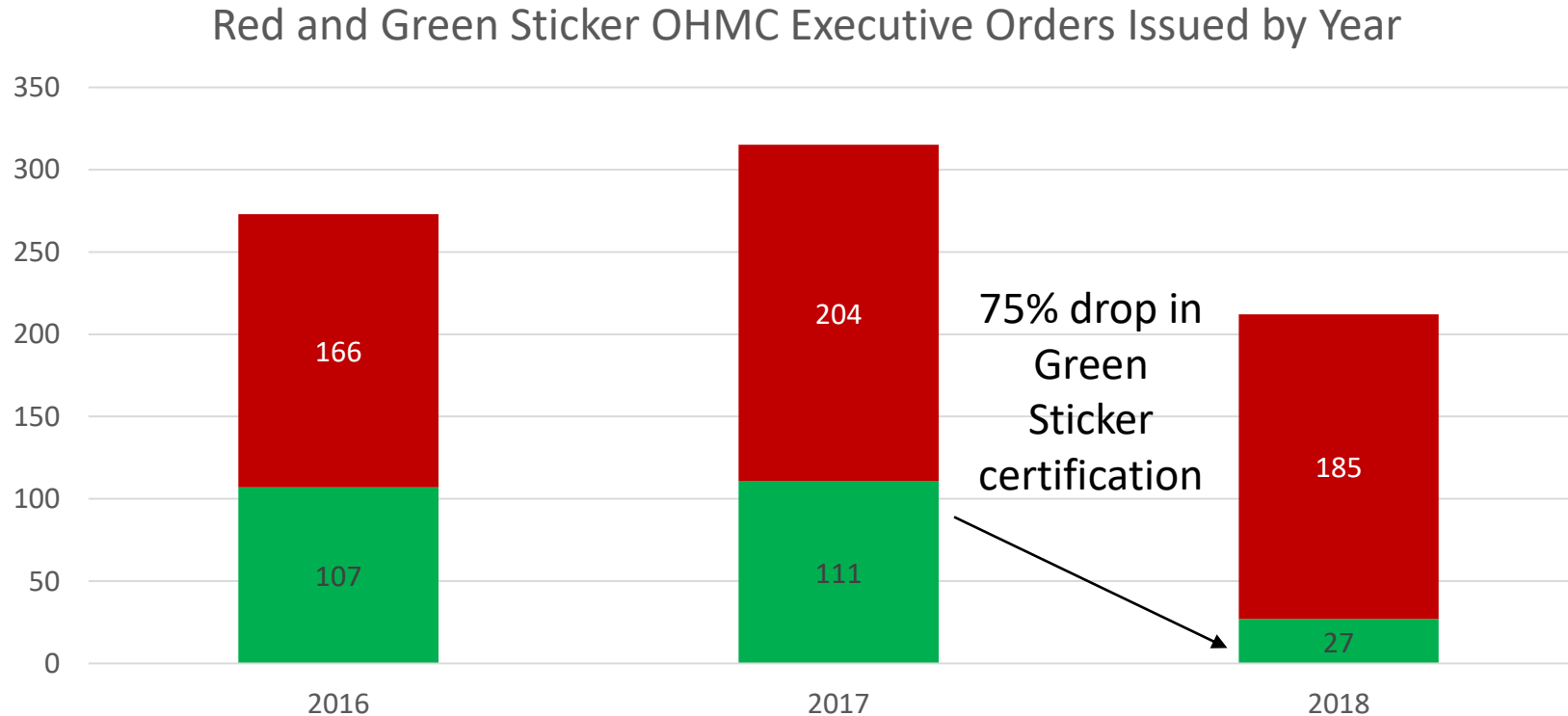


Status Of CARB Red Sticker Program

- Program was originally develop to be a temporary solution for manufacturers
 - Program still exists more than 20 years later
- Does not provide expected emissions benefits
 - Year round Red Sticker OHMC operation results in uncontrolled exhaust emissions
- Problematic for state agencies
 - Enforcement challenges
 - Registration difficulties
- Allows for manufacturers to avoid complying with MY2018 evaporative standards

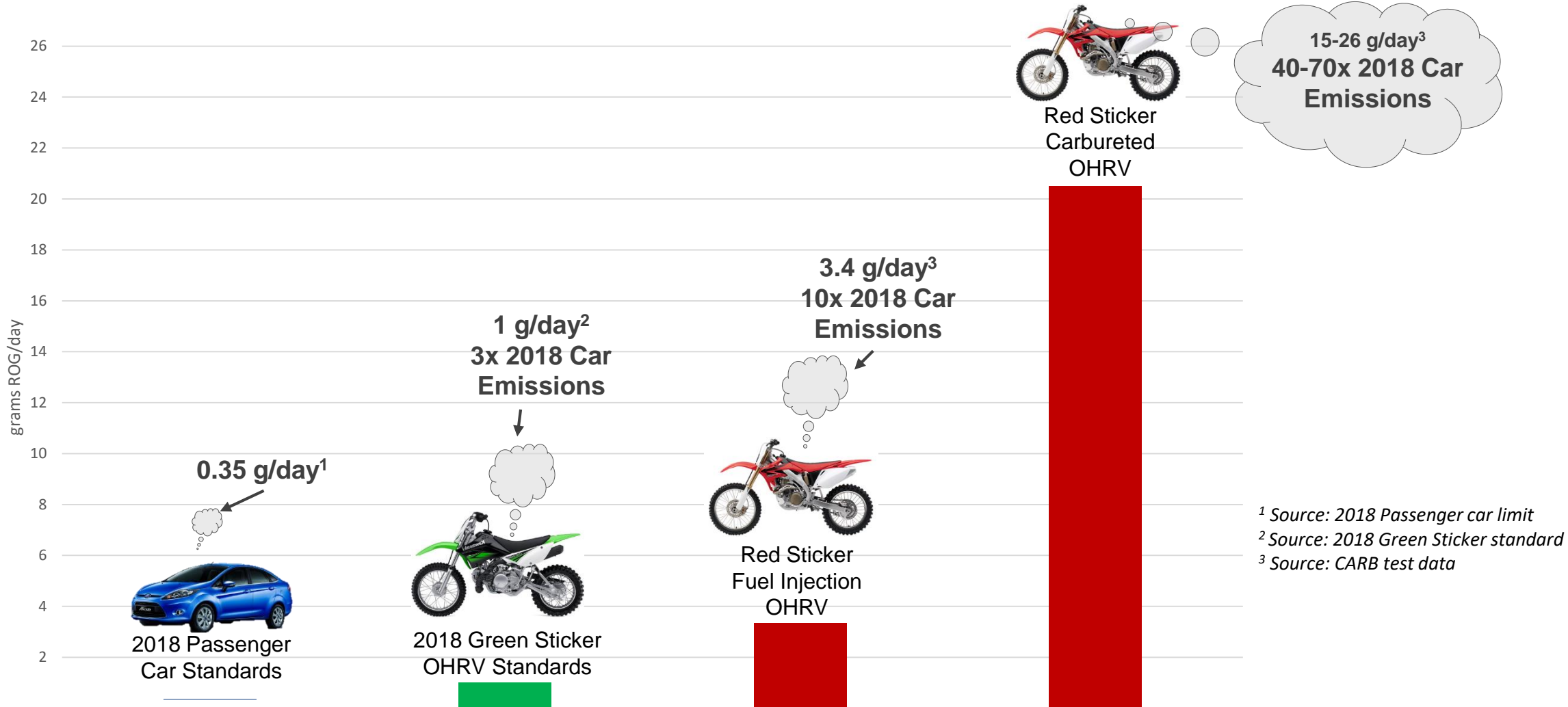


Drop In Green Sticker Certifications For MY2018



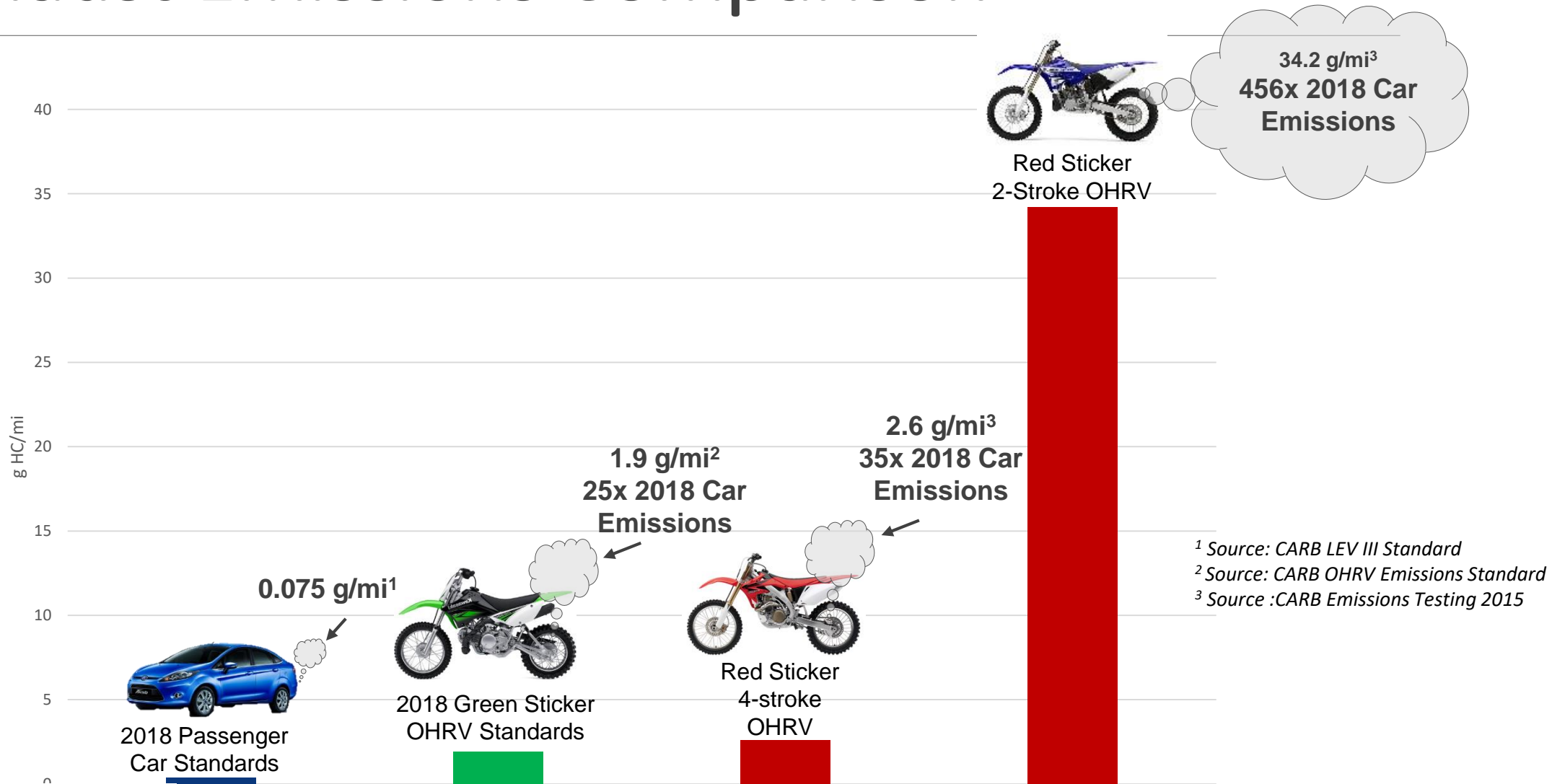
- Implementation year for 2013 evaporative rulemaking more than 75% drop in Green Sticker certification
 - Noted decrease in Green Sticker certification
 - Green Sticker models moved to Red Sticker certification
 - No OHMCs have been certified for evaporative compliance

Evaporative Emissions Comparison



¹ Source: 2018 Passenger car limit
² Source: 2018 Green Sticker standard
³ Source: CARB test data

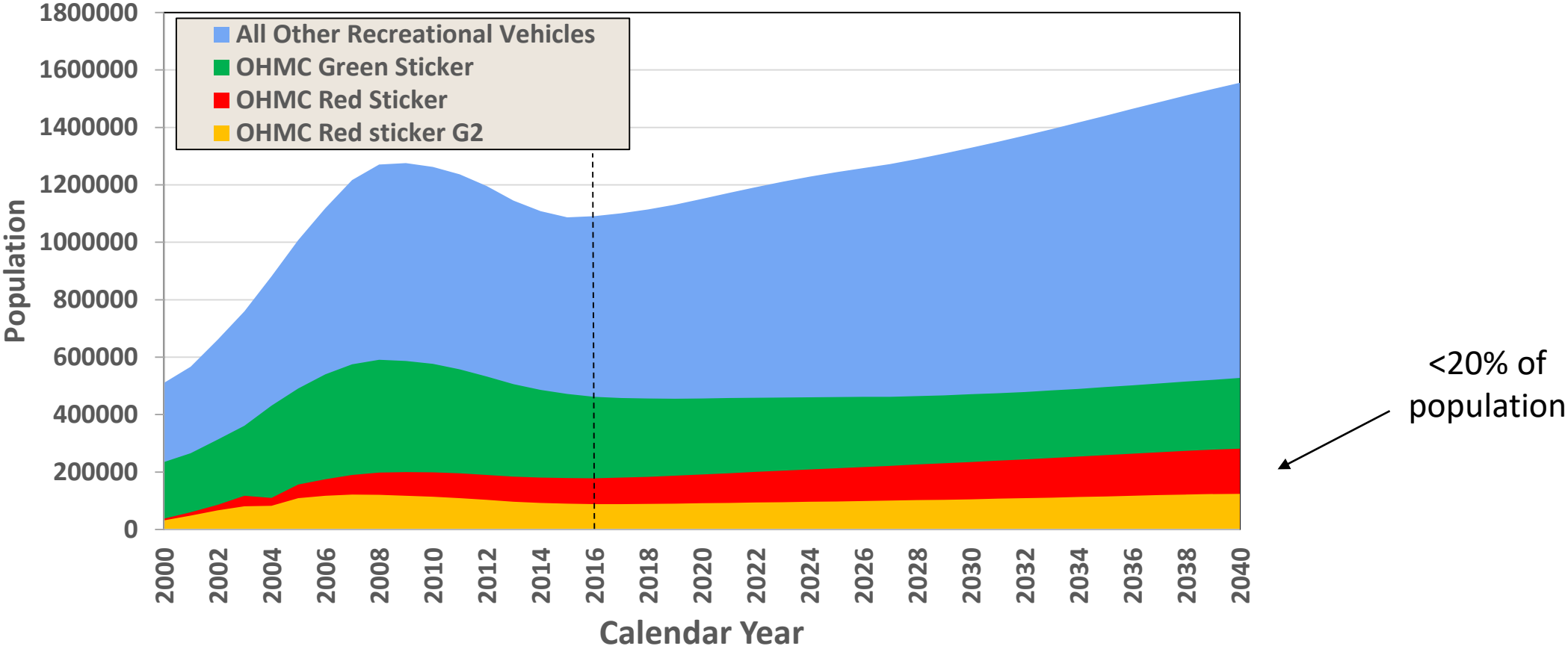
Exhaust Emissions Comparison



¹ Source: CARB LEV III Standard
² Source: CARB OHRV Emissions Standard
³ Source :CARB Emissions Testing 2015

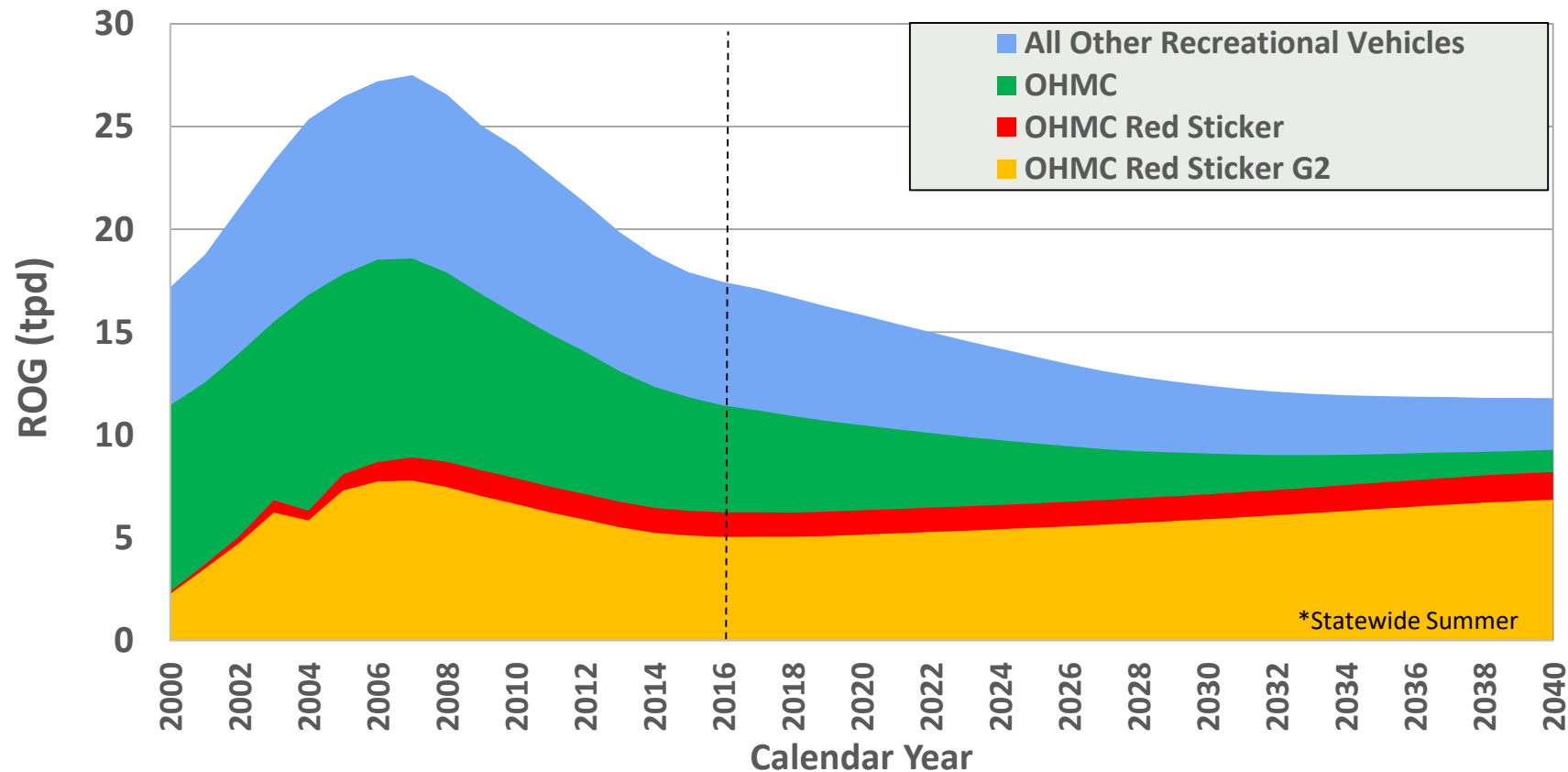
Population Of OHRVs

Current Population of Recreational Vehicles



Statewide Summer ROG Emissions

Updated Distribution of ROG (tpd) from Recreational Vehicles*



CARB Priorities For A Regulatory Proposal

1. Reduce emissions
 - Eliminate future sales of uncontrolled vehicles
 - Realize expected benefits of 2013 evaporative rule
 - Set stage for future emission reductions
2. Eliminate inconsistency with federal rules
3. Reduce enforcement burden of existing Red Sticker Program
4. Minimizing impact to vehicle availability
5. Accelerate development and adoption of zero-emissions OHRV

Key Elements Of Regulatory Proposal

Step I: Sunset Red Sticker Program

- ✓ Establish date to end the sale of Red Sticker OHRVs
- ✓ Transition to Green Sticker controls

Step II: Clarify Racing Exemption

- ✓ Define competition
- ✓ Protect exemption for true racing purposes

Step III: Evaluate New Emissions Standards

- ✓ Transition to cleaner engine technologies
- ✓ Incentivize zero emission technologies

Sunset Red Sticker Program

- Eliminate Red Sticker sales – MY2022
- Establish two emissions categories for off-highway motorcycles, cap percentage of Category 2 and reduce over time

	Exhaust	Evaporative	Comments
Category 1 (CARB)	1.2 g/km HC	1 g/day TOG	<ul style="list-style-type: none"> • No change
Category 2 (U.S. EPA)	2.0 g/km HC + NOx	Hose/tank perm	<ul style="list-style-type: none"> • Fleet averaging is allowed • Most Red Sticker 4-strokes can meet this

- Both categories are CARB certified, no usage restrictions



Sunset Red Sticker Program (Cont.)

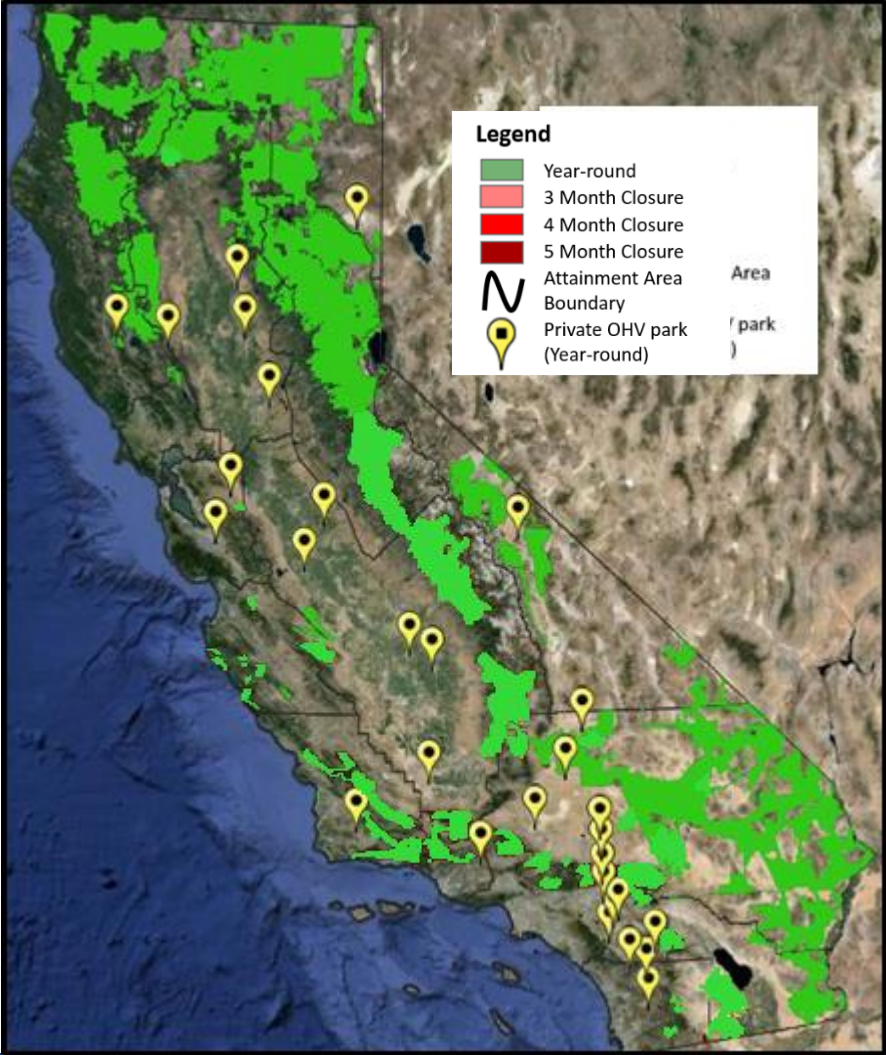
- Cap the percentage of Category 2 OHMCs that can be sold - reduce percentage over time, transition to Category 1

Model Year	Maximum Percentage of Category 2 off-road motorcycles that may be sold
2022	55%
2023	45%
2024	35%
2025	25%
2026	15%
2027	5%
2028	0%

- ZEM sales provide incentives in percentage and fleet average

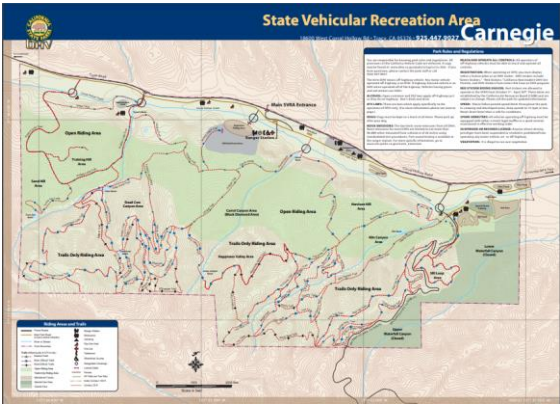
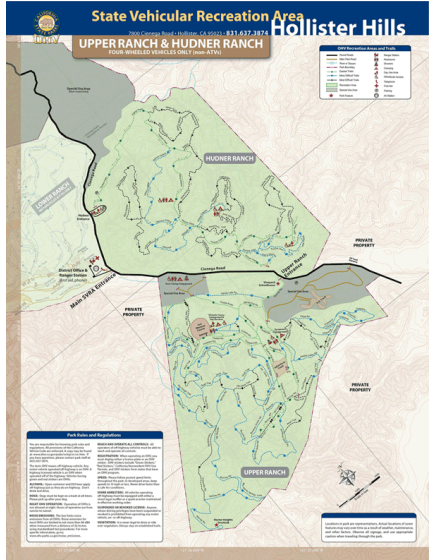
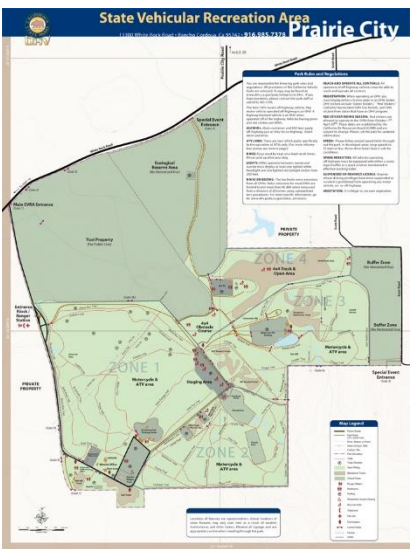
Lifting Red Sticker Riding Restrictions

- Starting on January 1, 2025:
 - No seasonal restrictions for Red Sticker vehicles
 - All the restricted riding areas will now allow for year-round riding
 - Existing Red Sticker bikes will be grandfathered in
 - Registration sticker may be either green or red, no difference in access or registration



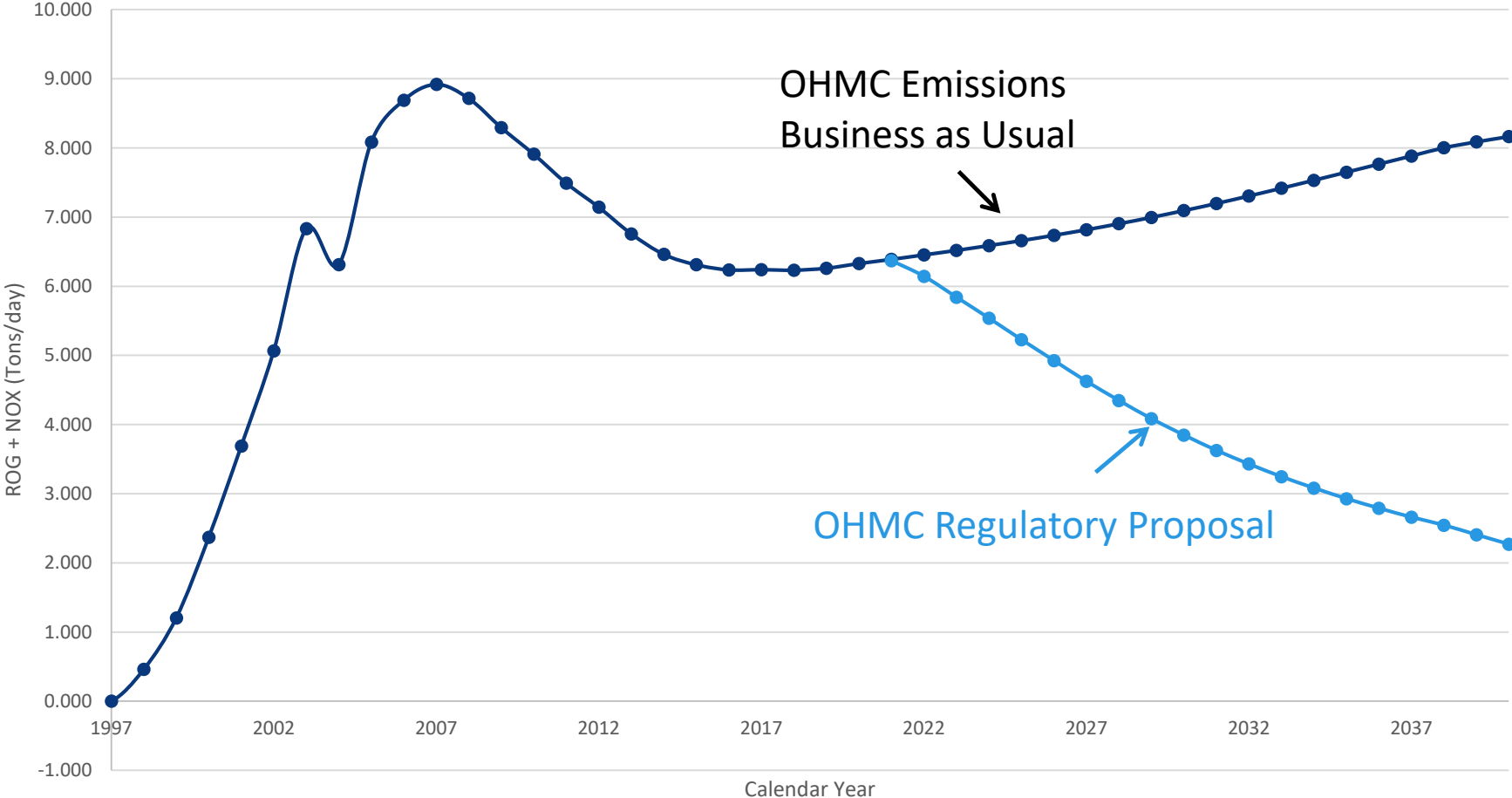
What About Competition OHMCs?

- Uncertified vehicles can still be sold
 - Closed course, competition only
- Public OHV areas with private tracks/racing events will still allow competition riding
 - Ex: Hollister Hills, Prairie City, Carnegie, etc.
- CARB will work with dealers and manufacturers to inform riders about use of competition vehicles



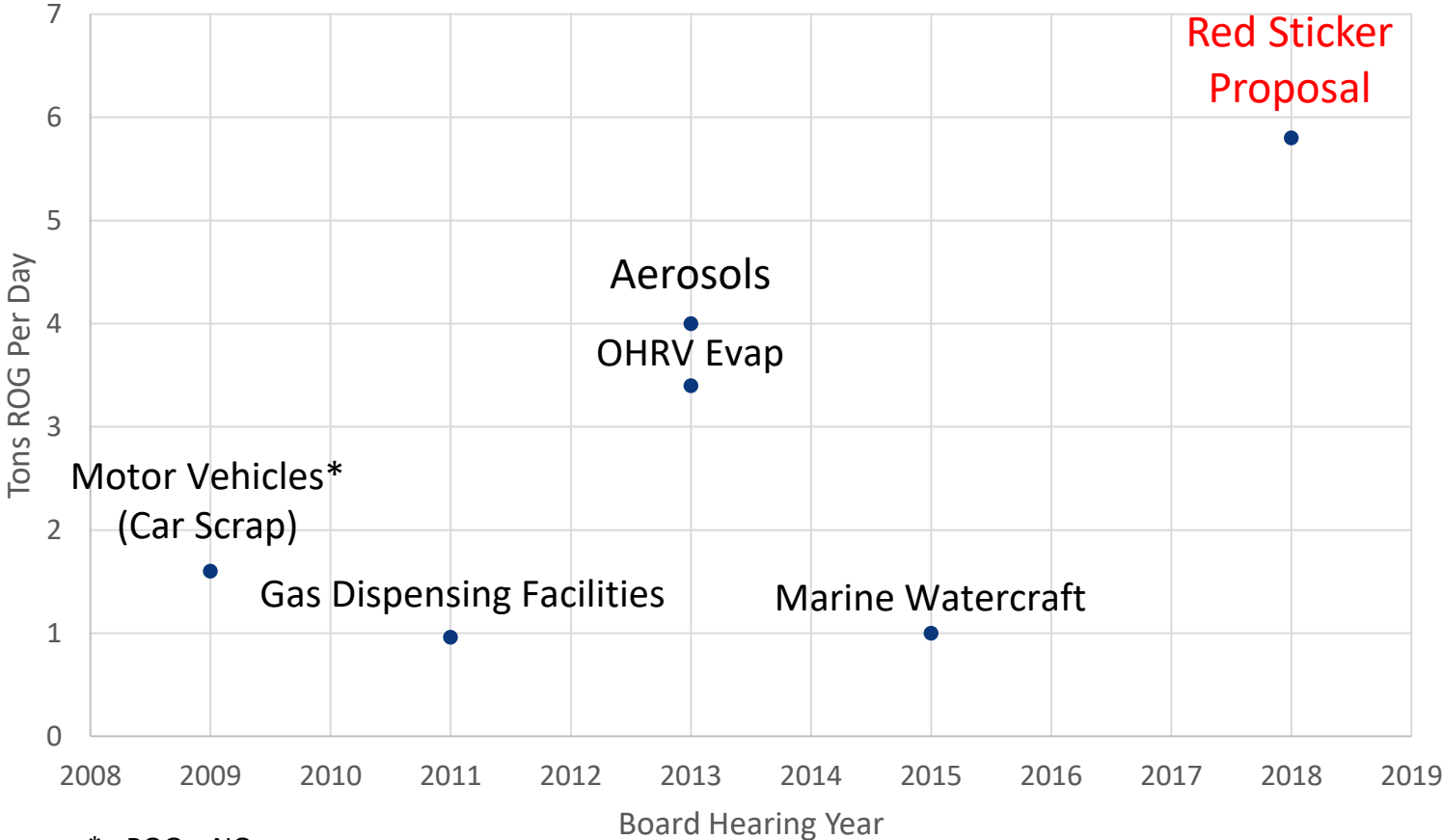
Emission Reductions From Proposal

Baseline vs. Regulatory Proposal



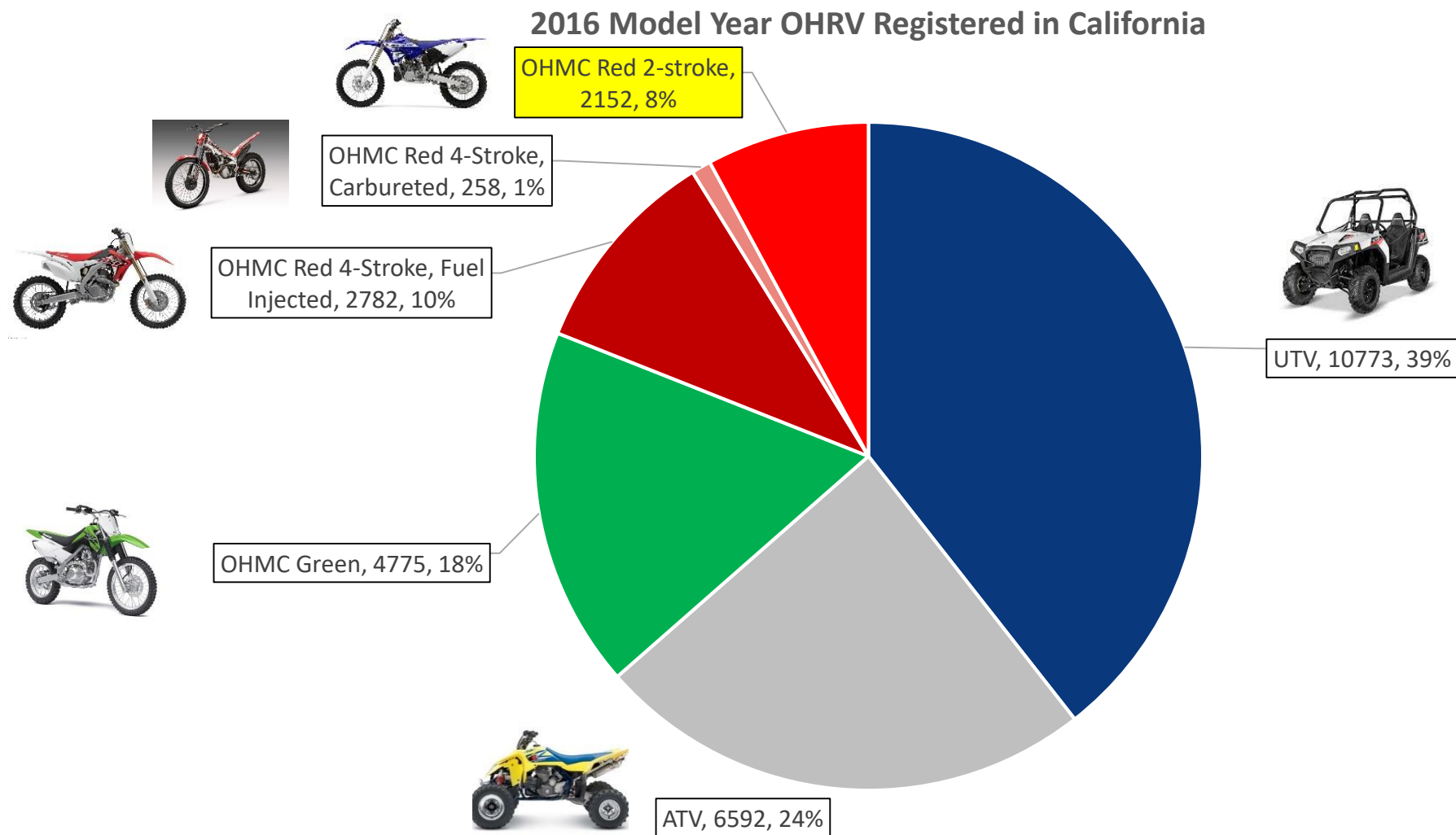
Emissions Reductions Are Significant

Emission Reductions from Recent Regulations



* - ROG + NOx

Industry-Wide: Model Availability Will Not Be Significantly Impacted



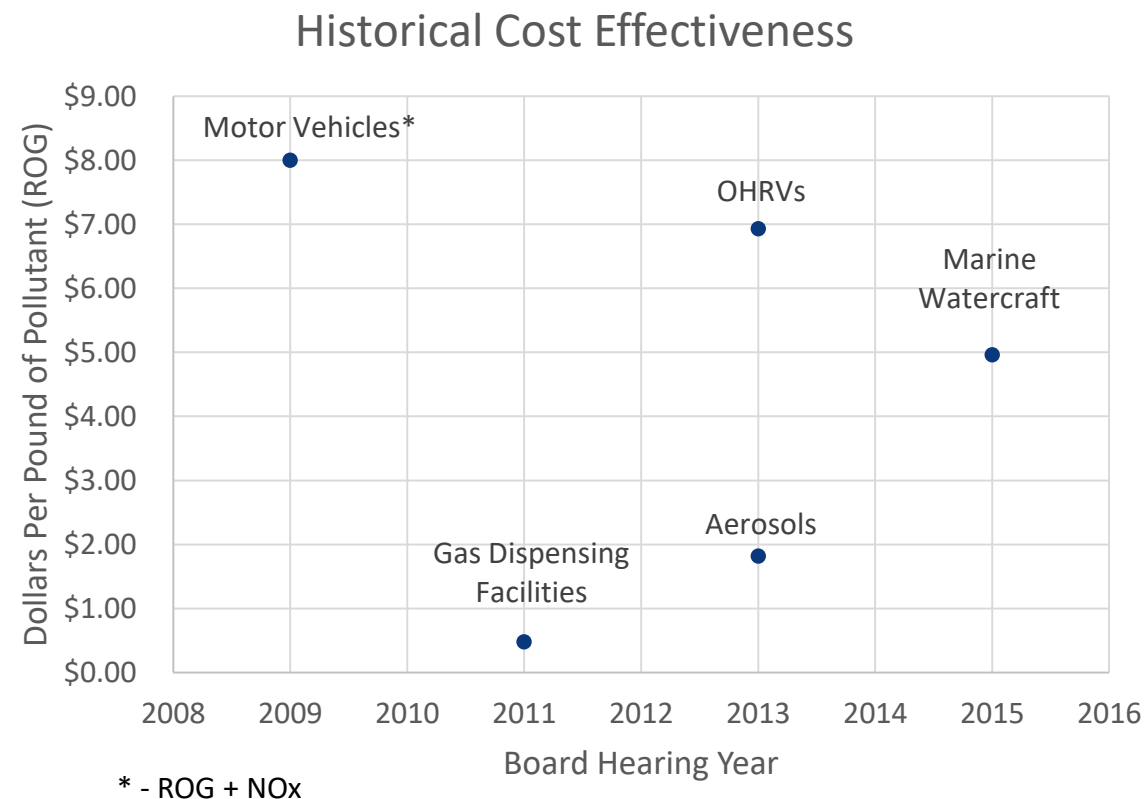
Additional Proposed Regulatory Changes

- Lower displacement consideration for evaporative requirements
 - Section 2416(b)
- Additional evaporative test fuel
 - TP-933
- Zero-emission definition/credits
 - Section 2411



Evaluation Of Cost Effectiveness

- Cost effectiveness is a key consideration when the Board decides to approve or reject the staff's proposal
- Cost effectiveness is a ratio of a OHMC's estimated increased retail cost divided by the projected lifetime emission reductions (\$/lb)
- Evaporative costs
 - Accounted for in 2013 Rulemaking
- Exhaust costs
 - Certification and testing costs to meet Category 1/2
 - CARB is seeking incremental costs from manufacturers to comply from Category 2 to Category 1



Rulemaking Timeline

- Receive and evaluate stakeholder comments – June 15, 2018
- Finalize proposal, staff report, and fiscal/economic analysis – July 2018
- Documents released for formal comment period – September 4, 2018
- Board Hearing – October 25, 2018



Clarify The Racing Exemption

- Develop single competition definition for all categories
- Protect exemption for true racing purposes
 - Provide clarity on exempted vehicle use
- Eliminate excess emissions associated with misuse
- Rulemaking by Enforcement Division – Early 2019



Evaluate Further Emission Reductions

- Evaluate the need for more stringent standards for OHRV
 - Conduct control technology assessment
 - Perform economic analysis/cost surveys
- Evaluate additional zero emissions vehicle incentives
- Encourage development of zero-emissions competition classes



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For more information and to sign up for our list serve, please visit:
<http://www.arb.ca.gov/msprog/offroad/orrec/redsticker.htm>

Questions And Comments

