



MARIN ROWING ASSOCIATION

50 Drakes Landing Road
Greenbrae, CA 94904
(415) 461-1431

To: California Air Resources Board (CARB)
1001 I Street
Sacramento, CA 95814
helpline@arb.ca.gov

Re: Expanding programs to Include supporting the replacement of any 25hp or greater gas powered marine propulsion with an electric equivalent

To Whom It May Concern;

I am a Board Member of the Marin Rowing Association in Marin County (<https://www.marinrowing.org/>) where we have eight (8) gas powered outboard engines, 25hp to 50hp, to propel our coaching launches. We are the first organization in California to purchase and receive a 100% electric alternative for our first launch. This electric alternative to our 25hp gas engine has superior performance and is nonpolluting. In fact, we charge it with solar. Soon, we will be replacing the other 7 launches with an electric alternative.

Similar to 2012 when electric vehicles began to replace gas cars, there will be tens of thousands (or more) recreational and non-recreational boat owners in California who will want to transition to 100% electric outboard motors now that the technology exists and is commercially available. An example of it can be seen at www.purewatercraft.com.

CARB has done a wonderful job supporting the electrification of large marine vehicles transitioning from gas or diesel to hybrid or full electric. Up until now, there was no viable electric equivalent to replace outboard marine engines 25hp or greater for recreational and non-recreational vessels. From CARB's site (<https://ww2.arb.ca.gov/our-work/topics/oceangoing-vessels-harbor-craft>):

“From massive cargo ships to smaller harbor craft such as ferries and tug boats, marine vessels impact California's air quality. Over the past 10 years, California has enacted regulations to limit the pollution generated from these vessels, helping improve air quality in port-adjacent communities as well as further inland.”

Just as CARB saw the value of providing incentives for these larger marine vessels to transition to electric once the technology became available, now is the time to expand programs to include replacing 25hp or greater gas outboard engines with electric. In fact, replacing each one of these gas outboard engines to electric has the equivalent impact of taking 125 gas burning cars off the road per year. Here are the calculations to show the ecological benefit:

<https://www.purewatercraft.com/2019/08/07/a-thousand-cars-off-the-road/>



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This is a formal request to expand CARB programs to include the dock wiring, purchase of electric alternatives (chargers and motors) and ongoing carbon benefit of replacing 25hp or greater gas outboard engines with 100% electric alternatives. Some of the programs to expand may include:

- LCFS program (<https://ww2.arb.ca.gov/our-work/programs/low-carbon-fuel-standard>)
- The Carl Moyer Program (<https://ww2.arb.ca.gov/guidelines-carl-moyer>)
- Volkswagen Environmental Mitigation Trust for California (<https://ww2.arb.ca.gov/our-work/programs/volkswagen-environmental-mitigation-trust-california>)
- Bay Area Air Quality Management District (<https://www.baaqmd.gov>)

There is also an opportunity to model a program similar to the Clean Vehicle Rebate Project (<https://cleanvehiclerebate.org/en>) to help transition away from these high polluting outboard engines as it did for EV adoption.

The board of MRA extends a huge thank you to CARB for continuing to push for cleaner air in California. Your consideration of this matter, which seems in line with CARB's mission, is greatly appreciated.

Please feel free to reach out to me directly should you have any questions or if you would like to take a ride on our electrified launch.

Sincerely,

John Younger
Board Member
Marin Rowing Association
johnkyounger@gmail.com