

## **Comments with respect to the “Public Hearing to Consider Proposed Amendments to the Small Off Road Engine Regulations: Transition to Zero Emissions”**

Aether Catalyst Solutions, Inc. is a developer of catalysts for automotive emissions abatement. We have recently investigated the application of our technology to the challenging environment of small motors and our work has led to the development of a catalyst capable of removing NO<sub>x</sub> from the exhaust gas stream of a range of small motor products.

Recent field tests with ride-on mowers used by a nearby municipality have shown that the unoptimized catalyst can reduce the NO<sub>x</sub> emissions from a Ferris Pro Cut S by a minimum of 50%.

Our catalyst can be installed in the muffler of many small motor products and thus lends itself to a simple aftermarket solution for the large inventory of existing SORE products owned by California residents. In the same way, the catalyst could easily be integrated into the existing supply chain by the OEMs.

Historically, with platinum group metals the only viable option for exhaust remediation, catalytic converters were too expensive for wide-spread use in SORE. The existing aftermarket products for SORE emissions reduction all suffer from this issue. Aether’s solution, a catalyst using no platinum group metals, is cost effective; typically offering an order of magnitude cost reduction.

Battery technology offers homeowners excellent alternatives to gasoline power for occasional use equipment. However, due to the weight and space requirements of extra batteries, this technology is still not practical for most commercial users. In the power generation segment, battery packs do not currently (nor will they soon) have the power density to replace a gasoline generator. Fuel cells present a clean option, but the technology is costly and requires users to store, and have access to, substantial amounts of hydrogen for fuel.

Aether believes that its technology aligns strongly with CARB’s proposed amendments to the SORE regulations in that the technology can significantly lower the NO<sub>x</sub> emissions of SORE products right now, in the most economically benign way. Although the technology will not achieve the proposed zero NMHC+NO<sub>x</sub> goal, it could offer, in the interim, a major, significant step forward from the current regulations and can address both new and existing products.

Many experts have said that tomorrow is too late to prevent climate change. Aether is committed to offering practical, economical solutions to today’s climate and air quality challenges, bridging the gap between today and a zero emissions future.

Respectfully,

Taylor Procyk

Chief Operating Officer

**Aether Catalyst Solutions, Inc.**