

1 Whitlee Court, Greenville, SC 29607 Phone (864) 438-0000 Fax (864) 281-1894 www.proterra.com

September 30, 2014

California Air Resources Board 1001 | Street Sacramento, CA 95814

Subject: Medium- and Heavy-Duty Battery Electric Technology Assessment

Dear Technology and Fuels Assessment Staff:

We appreciate the opportunity to provide comments on the Medium- and Heavy-Duty Battery Electric Vehicles Technology Assessment Workshop. We commend the California Air Resources Board (ARB) for developing technology and fuels assessments to evaluate the development and help accelerate the deployment of commercially viable, immediately scalable, zero-emission public transit buses.

Proterra Inc is the leading provider of zero-emission, battery all-electric transit solutions. Our buses are in service in northern and southern California and throughout the country. The Proterra CATALYST[™] achieves 22+ miles per gallon diesel equivalent performance, 500%+ better than diesel and CNG buses. In addition, this advanced technology avoids mobile smog-causing emissions, reducing carbon emissions by 70% or more compared to CNG or diesel buses. Zero-emission transit buses further provide the opportunity for all Californian's to ride an electric vehicle and realize the superior associated health and quality of life benefits.

Comments:

- 1. Transit buses have consistently been the forerunners in advancing heavy-duty transportation technology and transferring lower-emission technology throughout the heavy-duty, class 8 sectors.
- 2. Transit agencies throughout the country are embracing Proterra's zero-emission buses and fast-charge technology, a commercially available, cost-saving transit solution for California and beyond. To date, Proterra buses have logged nearly 600,000 miles of revenue service in cities across the United States. Among the company's current customers are San Joaquin RTD in Stockton, Calif., VIA Metropolitan in San Antonio, Texas; WRTA in Worcester, Mass.; TARC in Louisville, Ky.; Nashville MTA in Nashville, Tenn.; Star Metro in Tallahassee, Fla.; Foothill Transit in Pomona, Calif.; and CATBus in Seneca, S.C. Additionally, Proterra recently sold two buses to King County Metro in Seattle.
- 3. There is an opportunity now to accelerate the electrification of the entire transit industry, including the goods movement in and around the ports and congested goods movements corridors throughout California. By combining performance, efficiency and design, Proterra buses offer the lowest cost per passenger mile of any transit technology diesel, hybrid or CNG. In addition to lasting cost savings and other benefits for transit operators and riders, Proterra's fast-charge



technology offers immediate and lasting air quality and health benefits today, with near-term transferability to eliminate emissions and associated exposures to disadvantaged communities from the concentrated short-haul goods movement in and around the ports.

- 4. As a follow up to the Medium- and Heavy-Duty Battery Electric Vehicles Technology Assessment slides presented at the workshop, we have a few clarifications and suggested corrections. On slides 35, 36, and 43, we suggest including "functionally unlimited" under "range miles" because Proterra's fast-charge, zero-emission transit buses offer functionally unlimited range in the vast majority of transit routes due to their ability to continuously charge within their routes in under 7 minutes by utilizing automated roof top charging at regularly scheduled stops. If an incremental segment range is required, we propose a range of 30-50 miles. In addition, on slides 35, 36, and 43, we would like to correct Proterra's "battery size KW-hr" from 100 to 104.
- 5. Transit agency early adopters have demonstrated the technology readiness of battery all-electric solutions on urban as well as mixed suburban routes. And we are seeing some of these same adopters replace entire fleets and/or routes with Proterra buses. Larger scaled pilot deployments now would demonstrate the economic, performance and lasting environmental benefits of deploying commercially available, cost-saving, desirable battery electric buses with functionally unlimited range.

We thank you for the opportunity to provide comments on the Medium- and Heavy-Duty Battery Electric Vehicles Technology Assessment Workshop and appreciate the efforts of the Air Resources Board to immediately reduce mobile source criteria pollutants, greenhouse gas emissions and toxic exposures in communities throughout California.

Sincerek c McCarthy

VP Government Relations & General Counsel emccarthy@proterra.com