

Testimony in support of HB2700 from EVEVA to the House Committee On Climate, Energy, and Environment Hearing date: 2/20/2023 3:00 PM

The Emerald Valley Electric Vehicle Association (EVEVA), a volunteer organization of citizen EV owners and promoters of electric vehicle adoption, supports HB 2700, to add farm tractors to the Oregon Clean Vehicle Rebate program. The organization was founded in 2019 and is based in Eugene, with a wider membership base in western Oregon. We support all legislation that will accelerate the transition from fossil-fuel-powered vehicles to 100% electric-powered vehicles, including privately owned personal vehicles, publically owned vehicles, public transportation, and all types of vehicles used in the farming, commercial, and industrial sectors.

Some farmers in Oregon had the opportunity in 2021 to try out electric tractors made by Solectrac, a California company, on their farms. FORTH, Sustainable Northwest, OSU, and other partners piloted a program to bring three e-tractors to farms in southern and central Oregon and test them out in a variety of farm operations. In 2022 they added two more e-tractors, bringing them to farms in the Portland metro region, one of which was shared with BIPOC-owned farms. In May 2022, Oregon State University's NEWAg Laboratory published a paper based on the study performed in Wasco County, which compared the cost of operation of a 30 HP Solectrac Compact Electric Tractor (CET) and a 32 HP John Deere 2032R diesel tractor. The paper, titled "Total Cost of Ownership of a Compact Battery Electric Agricultural Tractor," written by Kyle W. Proctor of OSU, provides a detailed cost analysis of operating both tractors under three different operating conditions. The operating costs were based on a standard cost of diesel fuel at the time and utility rates at several different Oregon electric utilities. The study noted that diesel fuel prices rose significantly after the analysis began based on lower prices. The study also analyzes the emissions produced by both tractors under those three operating conditions.

The outcomes of the study were as expected: the electric tractor's emissions were significantly lower, even when accounting for electric energy sources with emissions associated with its production. While the Solectrac electric tractor's purchase price was about \$3,000 higher than the John Deere diesel, the study concluded that "this cost difference is small enough that incentives (from the government or other sources) could persuade producers to choose eTractors over IC tractors, incentivizing actions that combat climate change, while also providing many significant benefits to the producers and their communities."

The study also found that e-tractors become more cost effective as operating hours increase, due to lower maintenance costs and less variability in electric power costs, so that the projected cost of operation over the life of the tractor was lower for the Solectrac.

Electric tractors will have the same advantages over a diesel tractor as electric cars have over a gasoline or diesel-powered car. They are quieter and don't produce fumes or emissions. With fewer operating parts, they are simpler to maintain and will require less repair over the life of the tractor. In their typical uses, such as plowing a field while pulling a mower, an electric tractor has the advantage of being able to move at a slower pace than a diesel tractor, even in a mid-range gear. They also start instantly and move quickly, as needed. No on-site storage of a flammable fuel is needed, only an electric outlet for charging the battery.

Even though a rebate of \$2,500 to \$7,500 (if both the standard Clean Vehicle Rebate and the Charge Ahead Rebate were offered) would not significantly reduce the price of a 100 HP or larger electric tractor, it would be a good incentive to the hundreds of Oregon farmers who use smaller 25 HP to 70 HP tractors.

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on behalf of the Emerald Valley Electric Vehicle Association