Notes/Assumptions: CO2 Emissions Comparison between High-Performance GAS/DIESEL Lawn Mowers vs. Mean Green ELECTRIC Mowers:

General: To generate a CO2 emissions comparison for a specific application/mower, the data can either be inputted into the Excel spreadsheet at https://www.ecoequipmentsupply.com/why-electric/, or e-mailed to EES and we'll input the data and send you the completed spreadsheet and graph.

"High-performance" lawn mowers are defined as those with engines having power ratings between 10 and 36 horsepower (hp). These mowers typically have mowing decks between 30 inches and 60 inches wide, and include zero-turn, walk-behind, and stand-on mowers models.

Mower Use: This analysis assumes mowers are used 6 hours per day, 5 days per week for 23 weeks.

Fuel Consumption: Fuel consumption rates are NOT published by lawn mower manufacturers and will vary depending on operating conditions. However, anecdotal accounts indicate that conventional mowers with power ratings between 24 and 36 hp consume an average of 1 to 1.5 gal/hr.

Mowing Speed and Area: 19,800 ft/hr x 5 ft (deck width) = 99,000 sq ft x 1 acre/43,560 sq ft = 2.27 acre/hr.

CO2 Emissions Associated with Gas/Diesel Fuel: According to EPA data, approximately 20 lb CO2 is emitted per gallon of gasoline burned and 22.4 lb CO2 is emitted per gallon of diesel fuel burned, or an average of 21 lb when gas and diesel mowers are considered together.

Electricity Consumption: A high-performance zero-turn lawn mower manufactured by Mean Green Products (CXR-52/60) consumes approximately 2.8 kW/hour when mowing at an average of 3.75 mph.

CO2 Emissions Associated with Electricity: VT Agency of Natural Resources (ANR) estimates an average of 0.26 lb CO2/kWh associated with VT electric sources, excluding the emissions related to electricity generated from burning sustainable harvested wood.

To generate a CO2 savings comparison for a specific application/mower, input your data into the Excel spreadsheet available at https://www.ecoequipmentsupply.com/why-electric/notes/

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