

## Commercial Battery-Powered Electric Lawn and Garden Equipment Calculator

### Background

Statewide contract FAC88: Lawns & Grounds, Equipment, Parts and Services includes environmentally preferable products under Category 13: Commercial Grade Battery-Powered Electric Lawn Equipment. As Massachusetts advances the use of clean, renewable sources for electricity generation, below are some potential benefits associated with battery-powered electric lawn and garden equipment compared to gasoline-powered equipment:

#### Environmental benefits:

- Helping the Commonwealth meet its environmental goals in climate change, clean air, and toxics use reduction
- Reduction in toxic exposure and criteria air pollutants (particulate matter, sulfur dioxide, carbon monoxide)

Reduction in greenhouse gas emissions

- Reduction in hazardous waste and potential spills
- Reduction in noise pollution and nuisance complaints
- Reduction in wildlife and habitat exposure to toxic emissions, excessive noise, and ground-sourced particulates

#### Health benefits:

- Reduction in worker exposures to toxic emissions, excessive noise, excessive vibrations, and ground-sourced particulates
- Reduction in public exposure to toxic emissions, excessive noise, and ground-sourced particulates

#### Cost benefits:

- Avoided fuel costs
- Lower maintenance costs
- The possibility for extended work hour options and holiday operation due to lower noise levels

Battery-powered electric equipment on FAC88 has a minimum 2-year warranty. This calculator provides economic and environmental models for eligible entities to better understand these environmentally preferable purchasing options and to calculate the potential costs and benefits.

### Calculator Instructions

To use the calculator (environmental and economic models) input applicable cost, equipment, and operational data in the **red text** for the battery-powered electric equipment (left side) and the gasoline equipment (right side). The graphs and data results will update automatically based on this user input. *This tool is provided to generate estimates only, the Commonwealth makes no guarantees about equipment savings or years of equipment performance.*

### More Information & Links

- FAC88 Contract User Guide <https://www.mass.gov/doc/fac88/download>
- Environmentally Preferable Products Program Website <http://www.mass.gov/epp>
- Leading by Example Program Website <https://www.mass.gov/leading-by-example-program>

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*This calculator was developed in collaboration with Quiet Communities*



