

## Straw proposal Electric mowers and blowers incentives

I believe that you may be the right person to speak to about this idea. Michael Stoddard mentioned in the EMT board meeting today that you were taking 'straw proposals' for new areas of support. There are several of us on the York Energy Steering Committee who are very interested in converting gas-powered lawn equipment to electric. How do we best advance this idea for rebates in EMT? Many areas of the country have gone the route of banning them, but I believe in incentives.

I pulled together some information about the out-sized carbon emissions of gas-powered leaf blowers and mowers. I have included a link to an article about the record growth of US power equipment shipments in recent years. I wonder if there is any entity in Maine which tracks the data for the state; the number of units of, and the emissions of, power equipment? It may pop out that we can achieve a very cost-effective and significant reduction in emissions by replacing gas-powered equipment. I was surprised to find a highly rated commercial electric blower selling for less than \$100.

Best,

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“But it’s the outsize level of polluting emissions that has led California to pass a bill that will by 2024 halt the sale of most gas-powered leaf blowers, lawn mowers, and other small off-road engines (aptly known as SOREs). The two-stroke engine employed by leaf blowers combines gas and oil to give the machine more power. This makes it light enough to carry, but two-strokes spit out as much as a third of this fuel mix as unburned aerosol.

Operating a commercial leaf blower for just one hour emits smog-forming pollution comparable to driving a new passenger car about 1,100 miles, roughly the distance from Los Angeles to Denver, more than 15 hours of driving. That fact comes from the California Air Resources Board (CARB),...”

[Lawn Maintenance and Climate Change — PSCI \(princeton.edu\)](#)

“Most lawn equipment is gasoline powered, typically being one of two types: two-stroke or four-stroke engines. To fuel this equipment, it takes about 800 million gallons of gasoline annually, with 17 million additional gallons spilled in the process. Two-stroke engines pose a unique environmental hazard because they do not have an independent lubricant system, so fuel and oil are mixed. Due to this, about 30 percent of the fuel does not combust completely, thus releasing toxic gases into the air. A 2014 study examined the VOC (combination of harmful gases) emissions of two stroke scooters, and it was found that the levels of emissions were 124 times higher from an idling scooter than from a car or truck. Four stroke engines are also used in some equipment, and while they are slightly more environmentally efficient, in total, they are also harmful. A four stroke lawnmower operating for one hour equates to a vehicle traveling for 500 miles.

According to a study done by Quiet Communities, this equipment was responsible for the release of 26.7 million tons of pollutants in 2011. Furthermore, in the same year, another study demonstrated that a consumer grade leaf blower releases more hydrocarbons than a pick up truck or a sedan. EPA data has found that gas-powered lawn mowers make up five percent of total air pollution in the United States,

amounting to even more in urban areas. A sobering warning issued by the California Air Resources Board in 2017 reported the following:

“By 2020, gas-powered leaf blowers, lawn mowers, and similar equipment in the state could produce more ozone pollution than all the millions of cars in California combined.”

Although this equipment is often overlooked as a significant source of pollutant, lawn equipment poses a clear environmental hazard, especially given how large the lawn care industry remains in America.”

[The War on Leaf Blowers: Why Some Communities Are Up in Arms Over the Loud Lawn Tools \(bobvila.com\)](#)

“Almost [2.2 billion gallons of fuel](#) are used on lawn care each year, which is the equivalent of powering millions of homes for a year. Gas-powered leaf blowers in particular have a negative effect on the environment because of their two-stroke engines. [Research has shown](#) these machines emit 23 times more carbon monoxide and nearly 300 times more non-methane hydrocarbons—toxic chemicals that contribute to ozone pollution—than a 2011 Ford F-150 SVT Raptor.”

[Door Hanger4.jpeg \(wordpress.com\)](#)

[July 2, 2018 Testimony of Jamie Banks — Quiet Clean D.C. \(quietcleandc.com\)](#) “Big-campus universities including Harvard, Yale, Florida State, NC State, Cal State, and University of Texas, Austin are transitioning from gas to battery-powered equipment. In 2016, South Pasadena, CA became the first city in the nation to maintain all municipal lands and some routine work on its golf courses, year round with battery-powered equipment. The town of Southampton, NY is doing the same. More than 140 companies, some of which you’ll hear from today, are now operating with battery-powered equipment and manual tools at competitive prices. The National Association of Landscape Professionals named battery-powered equipment among its top trends for 2018, stating that “Many lawn mowers, leaf blowers, and similar equipment feature low or no emissions, are battery-powered, and are quieter.”

[Landscape Construction Equipment Goes Electric - The Edge from the National Association of Landscape Professionals](#)

“Landscape professionals considering adding electric construction equipment to their fleet now may find themselves with an advantage over their peers as customers begin demanding more environmentally friendly and quieter operations,” Thaker says.

Odegaard understands that many are going to be skeptical until they test the equipment for themselves.

“The power that you can get from electric today is nothing like it was even 10 years ago,” Odegaard says. “It’s unbeatable. That’s one of the things with T7X I think that surprises a lot of people is that they think electric and they think weak.”

[July 2, 2018 Testimony of Nancy Sainburg — Quiet Clean D.C. \(quietcleandc.com\)](#) **Sainburg:** Thank

you. Good afternoon, my name is Nancy Sainburg, and I'm the owner of the Enchanted Garden, a landscaping company located here in DC. We've been in business for over 30 years, and a majority of our business is in DC. We provide services to clients with properties as small as townhouses, and as large as several acres. Both commercial and residential properties.

You may hear some testimony today that it is not possible for landscape professionals to do our job without gas-powered blowers. But I can tell you from my own experience that that is completely untrue. We've been using only battery-operated blowers for the past two years, and have had no trouble keeping up with the work in a timely manner. We've had no complaints from clients that our services are taking more time, and have heard nothing but compliments on low noise levels from the battery blowers.

[Record Growth in U.S. Outdoor Power Equipment Shipments in 2020 \(opei.org\)](https://www.opei.org/record-growth-in-u.s.-outdoor-power-equipment-shipments-in-2020)

Overall, the industry saw shipments of outdoor power equipment increase by more than 5 million units – a jump of 16 percent from last year – and those levels are expected to remain elevated in 2021.

This year has seen expansion of both gas and battery/electric equipment, with all electric and battery powered segments tracked by OPEI posting double-digit growth. “The industry continues to expand its power offerings for commercial contractors and homeowners,” Kiser said. “Whether its gasoline, propane, or battery/electric power, OPE manufacturers have the equipment and the power source to get the job done.”

- Consumer lawn mower shipments grew more than 15 percent in 2020, with 7.7 million units shipped.
- Commercial lawn mower shipments are down about 5 percent in 2020 compared to 2019, with more than 308,000 shipped, but are expected to grow by more than 5 percent in 2021.
- Handheld power equipment shipments grew by more than 17 percent in 2020, with 29.3 million units shipped.

## 1. Best Commercial Leaf Blower Vacuum—Toro Ultra Electric Blower Vac Commercial Leaf Vacuum Mulcher



This ultra-electric blower vac [from Toro](#) is a steal at under US\$100. The vacuum function and leaf shredder make this commercial leaf vacuum mulcher the right leaf vacuum for medium to large yards with a lot of heavy debris.

This electric blower has a variable-speed throttle, an oscillating nozzle kit, and excellent suction power to make cleaning leaves a breeze.

“Absolute powerhouse,” raved one reviewer. “My gas-powered leaf blower/vacuum broke, so I thought I would try an electric one. This one beats the gas one hands down. Very powerful. It is heavy but solid.”

### Specifications

**Amp:** 12-amp

**Speed:** up to 250mph, variable

**Item weight:** 8.9 pounds

**Power source:** corded electric

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