# COMMERCIAL BATTERY VS GAS LEAF BLOWERS

Model:	Stihl BRA 600	\$1,069.99 ea	RedMax EBZ8500	\$669.99
Battery		\$481.99 ea		Gas
Charger		\$192.99 ea		
Sound Rating		64 dba		113 dba
Air Volume		253 mph w/nozzle		220 mph
Air Flow		883 cfm		1,000 cfm
Blowing Force		34 newtons		47 newtons
Runtime		17 min (two batteries)		80-90 min
Weight		32 lbs		25.5 lbs
Charging Time		40 min / 55 min		refuel

<sup>\*</sup>Manufacturers use different testing standards and practices for their results. This makes comparisons confusing and potentially misleading. Based on <u>Blowing Force</u> (newtons) the data suggests a 33% efficiency loss. This could be conservative due to the power curve of battery and real-world performance.

When deciding between gas-powered and battery-powered leaf blowers, there are several factors to consider. Noise, power, convenience, environmental impact, and the type of work required. Both types have strengths and weaknesses that make them better suited for the end users.

### Gas Leaf Blowers:

Gas blowers have long been the industry standard for professionals and those with large properties. They offer superior power, longer runtime, and greater versatility for heavy-duty tasks like moving wet leaves, sticks, and debris over large areas. Their ability to run continuously, refuel quickly, and handle tough conditions makes them a favorite for commercial landscapers. However, gas blowers are loud, heavy, require regular maintenance, produce emissions, and can frustrate users with hard starts (pull cords, choke, etc.). They are increasingly facing restrictions in cities focused on noise and pollution reduction.

## **Battery Leaf Blowers:**

Battery-powered blowers have advanced significantly in recent years. For homeowners with small to mid-sized yards, they're often the better choice. They are quieter, lighter, easier to start, produce no emissions during operation, and require almost no maintenance. Modern lithium-ion batteries deliver adequate power for most residential needs, though runtime is limited by battery capacity. Swapping batteries or waiting for recharge can interrupt work on larger properties. While not yet matching gas in brute force, high-end battery models can rival some gas blowers for typical yard cleanup.

# DISCUSSION TOPICS:

Noise

Performance

Productivity / Efficiency

**Emissions** 

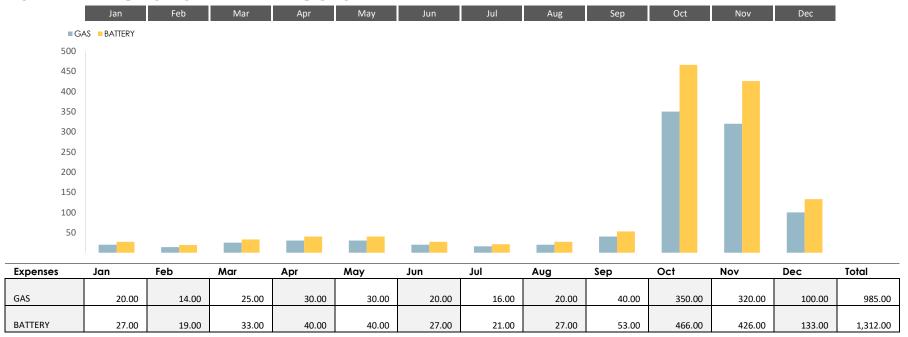
**Upfront Cost** 

Ongoing Cost (fuel, power, maintenance)

Weight / Vibration

Enforcement

# ESTIMATED GAS VS BATTERY HOURS



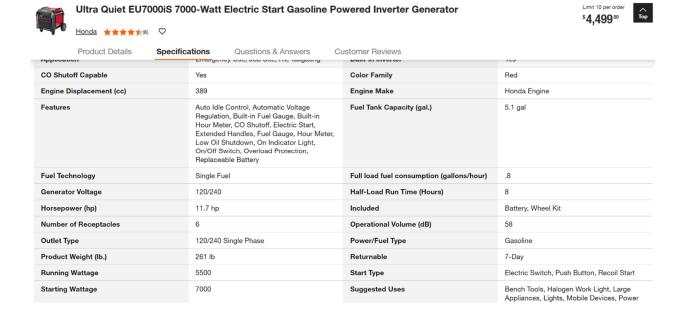
<sup>\*</sup>based on blowing force (newtons) the assumption is a 33% efficiency loss.

#### Scenario 1:

Assuming gas and battery blowers are equal in terms of performance. What is the cost difference? (based on 985 hours per year)

Gas Blower		\$699.99
Fuel 173 gallons (\$4.00g)	\$692.00	
Maintenance		\$150.00
	Total	\$1,541.99
Battery Blower		\$1,069.99
Batteries 8 each		\$3,855.92
Fast Chargers 6 each	\$1,157.94	
Gas Generator to Charge Batteries in the	\$4,499.00	
Fuel 784 gallons (\$4.00g)	\$3,136.00	
Generator Maintenance	\$150.00	

Total \$13,868.85



### Scenario 2:

Operational change for Battery Leaf Blower use. Field blowing tasks would be limited to 1 hour intervals plus 1 hour of charging time. Charging would be performed at the Public Works Facility or where power outlets are available.

Battery Blower	\$1,069.99
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Batteries 6 each (.337 kwh) \$2,891.94

Fast Chargers 6 each \$1,157.94

Electricity Cost (\$0.14 kwh) \$164.01

Total \$5,283.88