

PARKS ELECTRIC LEAF BLOWER PILOT PROGRAM



CLIMATE ACTION PLAN Transportation Action 1.6 | Electric Lawn & Construction Equipment

Encourage the use of electric gardening equipment through educational campaigns, rebates, and incentives. Implement a ban on gas-powered leaf blowers.

Action TR1.6 was identified as an Early Action for implementation by Council in May 2023. \$9k in ARPA funds were allocated in 23-24 to begin a pilot program to test electric alternatives to gas blowers for all City operations.

STAFF COMMENTS & CONCERNS

- -Nice for certain tasks (trail blowing doesn't blow the gravel as much)
- -Limited range of motion for the blower arm
- -Quieter
- -Ego equipment died in ~1 year and could not be recycled
- -Storage? Where are we going to charge all the batteries?
- -If all day blowing each person needs at least 5 batteries? Is that sustainable?
- -Not as powerful as gas powered so do we have the extra time to allocate to that disadvantage?



REGIONAL APPROACHES SEATTLE

- Resolution 32064. Passed in September 2022
- City departments and contractors cease use of gaspowered equipment by January 2025 ("or later if necessary")
- Businesses and Residents cease use by 2027

KIRKLAND

- Resolution R-5585. Passed in April 2023
- Cease use of gas-powered equipment in Kirkland by December 31, 2025 (may be changed based on "new information, learnings, and opportunities" as determined by City Manager)

CURRENT EQUIPMENT INVENTORY

Manufacturer	Model	Туре	Power	Quantity	Max Air Velocity (mph)	Blowing Force (N)	Weight (lbs)	Advertised Runtime (minutes)	Sound Pressure Rating (db(A))	Total Cost
Husqvarna	550iBTX	Backpack	Electric	1	146.64 (boost), 120.79	21 (boost), 14	34.6	NA	61	\$1,829.99
Stihl	BGA 300	Backpack	Electric	1	192	26	37.9	140	59	\$1979.84
Ego Power	+600cfm	Backpack	Electric	2*	145		18.81	15 (boost), 22 (high), 120 (low)	~50	\$560.00
Stihl	BGA57	Handheld	Electric	3	123	9	7.8	25	59	\$199.99
Echo	eForce DPB- 2500	Handheld	Electric	1	158	17	9.5	18 (turbo), 30 (high), 180 (low)		
Kress	KC500.9	Backpack	Electric	1	190	35	32.2	30	62	\$1900.00
Stihl	BR 600	Backpack	Gas	12-14	238	32	21.6	60	75	\$549.00
Billygoat	F1302SP	Self propelled	Gas	1	200		152			\$2775.00

Typical Sound Levels (dBA)

140 - Threshold of Pain
130 - Jet Taking Off (200 ft. away)
120 - Operating Heavy Equipment
110 - Night Club (w/ music)
100 - Construction Site
90 - Boiler Room
80 - Freight Train (100 ft. away)
70 - Classroom Chatter
60 - Conversation (3 ft. away)
50 - Urban Residence
40 - Soft Whisper (5 ft. away)
30 - North Rim of Grand Canyon
20 - Silent Study Room
10
0 - Threshold of Hearing (1000 Hz)

OSHA's permissible exposure limit (PEL) is an 8-hour total weighted average noise level of 90 dBA.1 Time of exposure is reduced by half for each 5 dBA increase

QUICK STATS

Compared to gas, electric backpacks have been found to be:

3.5x more expensive

1.7x heavier

27% less powerful

Electric backpacks last ~40 minutes on full charge