



City of Dallas

Landscape Equipment Policy Follow-up

**Environment & Sustainability
Committee
November 7, 2022**

Carlos Evans, Director;
Susan Alvarez, Assistant Director
Office of Environmental Quality &
Sustainability
City of Dallas

Presentation Overview



- Background/
History
- EVC
Recommendations
- Options for
consideration
- Timeline moving
forward



Background/History



- **September 2021:** Chair requested policy recommendations from staff concerning gas-powered landscape
- **December 1, 2021:** OEQS briefed the ENVS Committee on Landscape Equipment
- **May 19, 2022:** OEQS/Parks briefed the Park Board on Landscape Equipment
- **June 8, 2022:** Environmental Health Committee recommended phasing out gas-powered landscape equipment
- **August 1, 2022:** OEQS briefed ENVS Committee on landscaping equipment policy
- **September 6, 2022:** EVC provided formal recommendations to ENVS Committee



Environmental Commission Recommendations



- Implement a phased, tiered implementation method:
- Conduct a market **survey** of landscape firms.
 - Fully **implement City-staff transition** to electric equipment.
 - Conduct **community engagement** prior to Council vote.
 - **1st** year implementation: large **landscaping companies**;
 - **2nd** year implementation: **medium-sized landscaping** companies; and
 - **3rd** year implementation: **small businesses** and **residents**.
- Establish an incentive fund for residents and small businesses
 - Partner with a manufacturer and/or distributor to identify a match for any considered rebate.



Considerations in Implementation:



- Budget for conversion/ incentives
- Market Study to identify scope
- City contract for Landscaping Services
- Physical availability of equipment
- Physical availability of charging equipment
- Equity aspects of continued use and of transition
- Regional action related to Severe Non-attainment for air quality (2027)
- Ability to engage stakeholder firms



Case Study: Washington, DC:



- Leaf Blower Regulation Amendment Act of 2019 bans gas-powered landscape equipment.
- Began evaluation of legislation in 2017.
- Leaf Blower Regulation Amendment Act of 2018, effective February 22, 2019; enforcement began July 1, 2022.
- All new equipment for landscaping must be zero emission.
- City set aside \$290K/ year to transition to zero emission equipment, provide online platform, and enforcement staff.

Case Study: Montgomery County, MD



- Considering [bill](#) to ban selling, then using gas-powered landscape equipment including leaf blowers.
- Began evaluation of legislation in 2021.
- Bill 18-22, requires the County to transition to no sales after 6 months following bill passing, and to ban use within a year afterword.
- All new equipment for landscaping must be zero emission by the target date.
- County budgeted \$1.5 million/year for 5 years to help transition to zero emission equipment.

\$50-\$200 Leaf Blower Rebates!

Choose from backpack or handheld models or one of each!



Backpack Model
LBX6000/BHX1001
(\$100 rebate)

Handheld Model
EGO LB6504
(\$50 rebate)

Turn in a gas power leaf blower per rebate--up to two per address/business in Montgomery County

[APPLY HERE](#)



DEPARTMENT OF
ENVIRONMENTAL
PROTECTION
MONTGOMERY COUNTY • MARYLAND



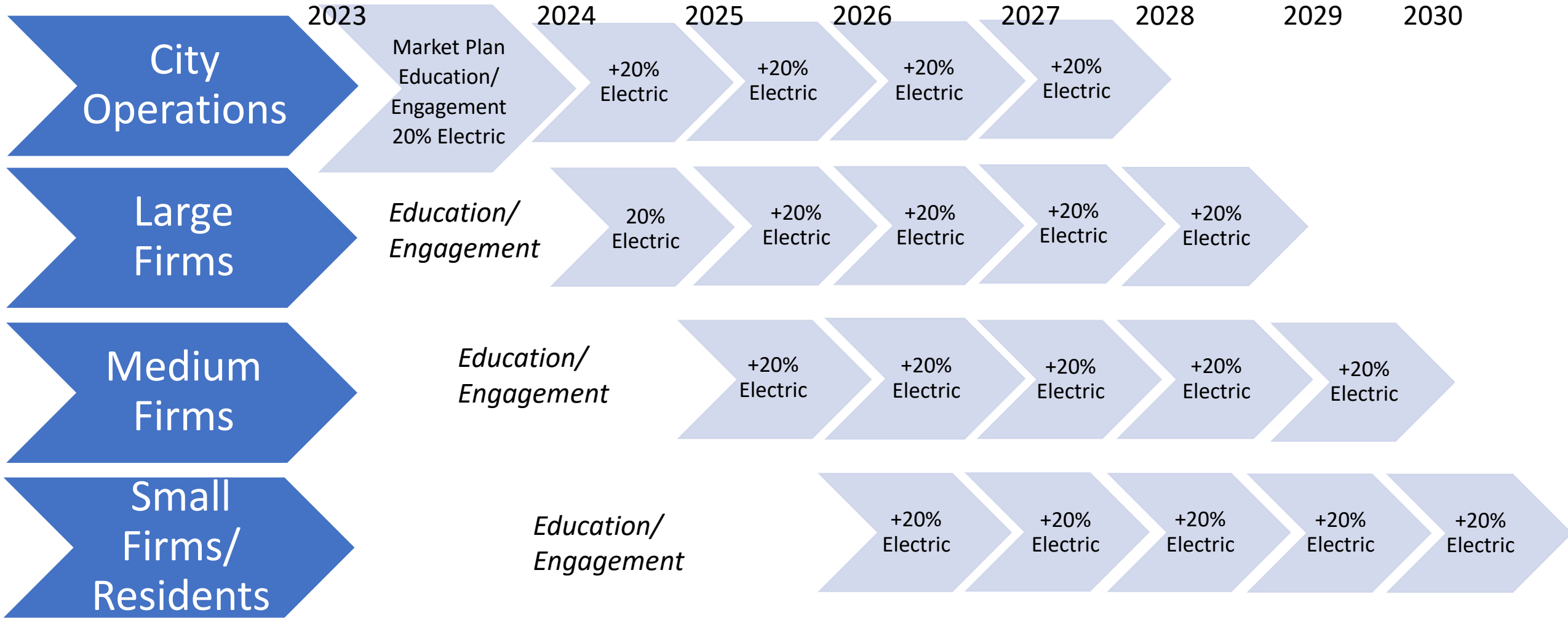
Case Study: State of California



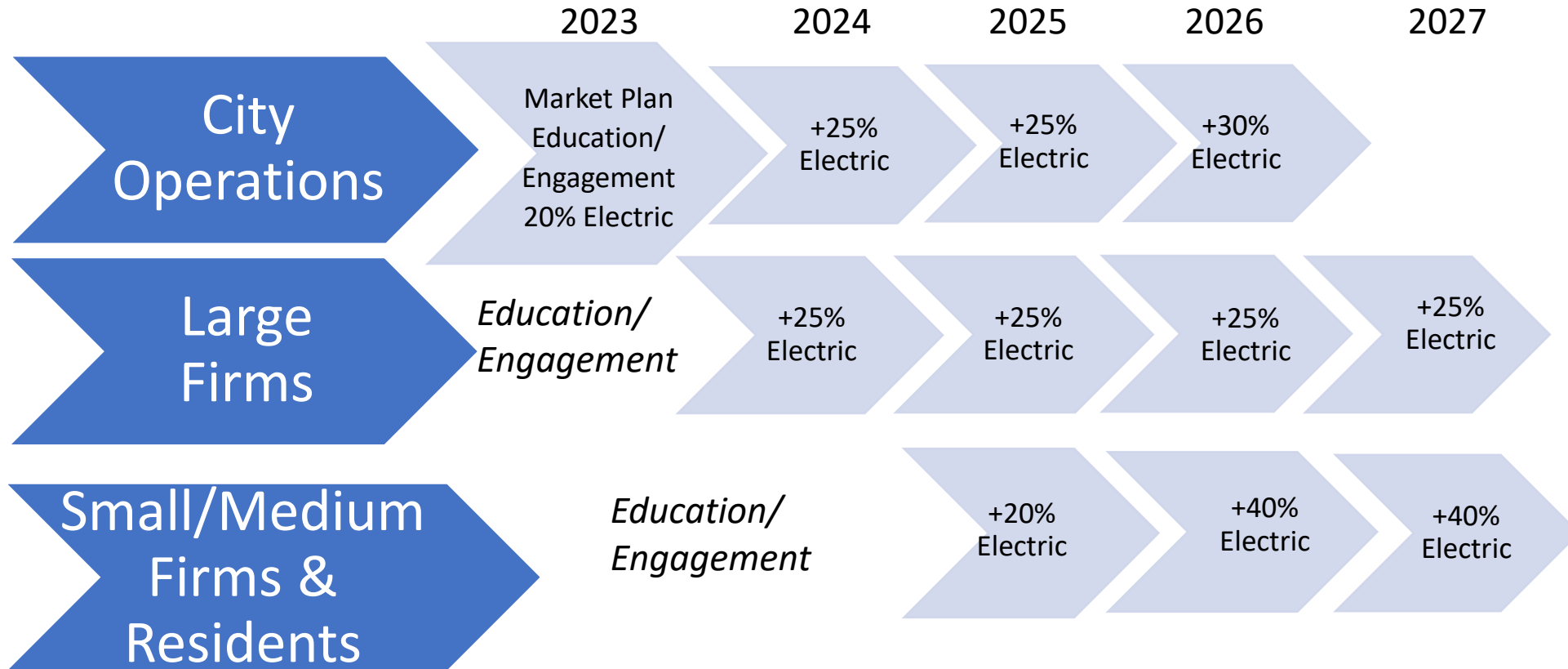
- “Small Off-road Equipment” (SORE) banned including, but not limited to leaf blowers.
- Began evaluation of legislation in 2018.
- AB 1346, required the state to adopt regulations around gas-powered tools by July 1, 2022, and ban sales by 2024.
- All new equipment for landscaping must be zero emission by the target date.
- California set aside \$30 million to help the transition to zero emission equipment.
- Local Air Control Boards charged with implementation.



Implementation Option 1: Transition by 2030



Implementation Option 2: Transition by 2027



Timeline Moving Forward



- Oct.- December, 2022: Identify consultant from environmental services master agreement.
- January - Aug. 2023: Develop the landscaping equipment transition plan.
- Work with appropriate departments to implement initial 20% equipment use.
- March, 2023: Seek initial public input into transition plan.
- Sept. 2023-Nov. 2023: Seek public comment.
- Dec. 2023: Seek formal Council adoption of plan.





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APPENDICES



Dallas Park & Recreation Pilot Results



Emissions Savings of Green Strike Teams

Based on Operating Equivalent Gas-Powered Equipment

Type	Model	Fuel Type	Units	Use	Annual Use (hrs)	HC Emissions (lb/yr)	NOX Emissions (lb/yr)	CO2 Emissions (T/yr)
Blower (Large)	BR600	4-Cycle Gas	1	3 hrs/day	540	37.91	27.82	9.61
Handheld blower (small)	BG86	4-Cycle Gas	1	3 hrs/day	540	10.67	7.83	2.71
Line trimmer	FS131	4-Cycle Gas	3	6 hrs/day	1080	113.73	83.47	28.84
Chainsaw	MS170	4-Cycle Gas	1	3 times per year for 6 hrs each use	18	0.67	0.49	0.17
Hedge trimmer	HL91K	4-Cycle Gas	1	4 times per year for 6 hrs each use	24	0.53	0.39	0.13
Pole Saw	HT103	4-Cycle Gas	1	3 times per year for 6 hrs each use in Fall	18	0.47	0.34	0.12
Total Annual Emissions						163.98 lbs	120.34 lbs	41.58 tons



Leaf Blower Environmental Justice Concerns



- Most landscapers using gas-powered lawn care equipment are subject to exposures to toxic gas & oil, carcinogenic emissions, noxious exhaust, and unsafe noise levels.
- Most lawn crews are unprotected and work full-time at the source of emissions and noise. Workers have few options and little agency.
- Between 2002 and 2016, the number of professional ground maintenance workers, including supervisors, grew by 85 percent to 1.6 million, according to Quiet Communities.
- A large portion of landscape workers are Hispanic.
- In 2021 the average annual income for landscape workers was \$30,160 and the average hourly wage was \$14.50 an hour.
- Any movement towards reducing or eliminating gas-powered leaf blowers in Dallas will need to address equity considerations related to potential impacts to local landscape crews.



The Good: Types of Leaf Blowers



Type of Equipment	Primary Use		Windspeed	Material Moved (CFM)**	Operating Noise (dB)	Weight Range (lbs)	Cost Range (2021 \$)
	Comm'l	Resid'l					
*Gas-powered Hand-held	X	X	>180 MPH	400-450	73-100	9-12	~\$100 - 200
Backpack	X		~200 MPH	910-940	75-125	23-26	~\$300 - 550
Battery Electric - Handheld	X	X	110-165 MPH	530-580	64	8-9	\$150 - 200
Backpack	X		145 MPH	600	64	13-20	\$400 - 1,200

Data Sources: <https://www.protocolreviews.com/gas-vs-battery-powered-leaf-blowers/> | <https://www.popularmechanics.com/home/tools/g37442980/best-gas-leaf-blowers/>

* Gas-powered data reflects more commonly used 2-stroke motor

**CFM= Cubic Feet /Minute





Sound Level Chart

Perceived Sound Level Sound Level Examples Leaf Blower Reference

Perceived Sound Level	dB	μPa	Examples	Leaf Blower Reference
	PAINFULLY LOUD	160		
	150		jet at takeoff	
	140	2×10^8	threshold of pain	
	130		power drill	
	120	2×10^7	thunder	
UNCOMFORTABLY LOUD	110		auto horn at 1 meter	90-105 dB leaf blower at operators ear
	100	2×10^6	snowmobile	90 dB OSHA permissible exposure limit
VERY LOUD	90		diesel truck, food blender	
	80	2×10^5	garbage disposal	62-75 dB Leaf blower at 50 feet
	70		vacuum cleaner	
MODERATELY LOUD	60	2×10^4	ordinary conversation	
	50		average home	
QUIET	40	2×10^3	library	
	30		quiet conversation	
VERY QUIET	20	2×10^2	soft whisper	
	10		rustling leaves	
BARELY AUDIBLE	0	2×10^1	threshold of hearing	

dB= decibels
 μPa = micro Pascals

OSHA Hearing Protection Threshold

Typical Municipal Noise Ordinance Threshold

Provided by California Air Resources Board, 2000

