



**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)

EGO™



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

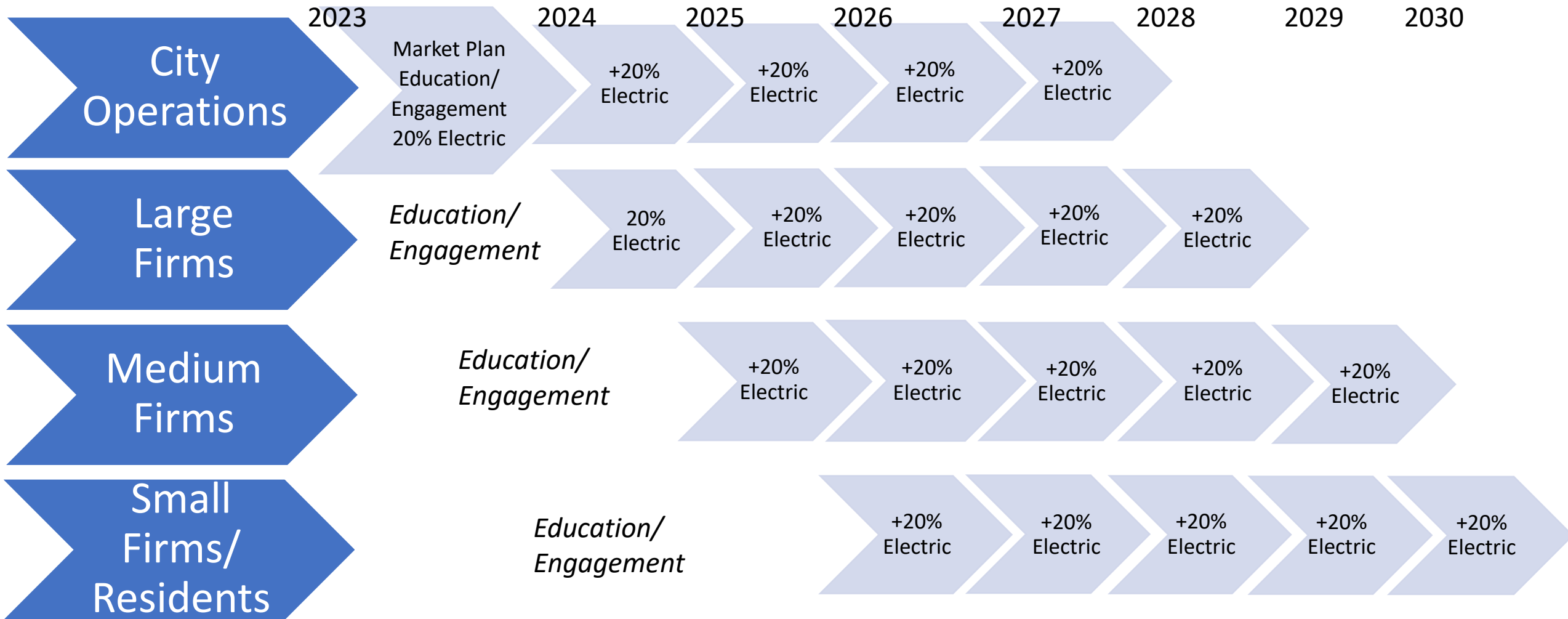


- “Small Off-road Equipment” (SORE) banned including, but not limited to leaf blowers.
- Began evaluation of legislation in 2018.
- AB 1346, required the state to adopt regulations around gas-powered tools by July 1, 2022, and ban sales by 2024.
- All new equipment for landscaping must be zero emission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

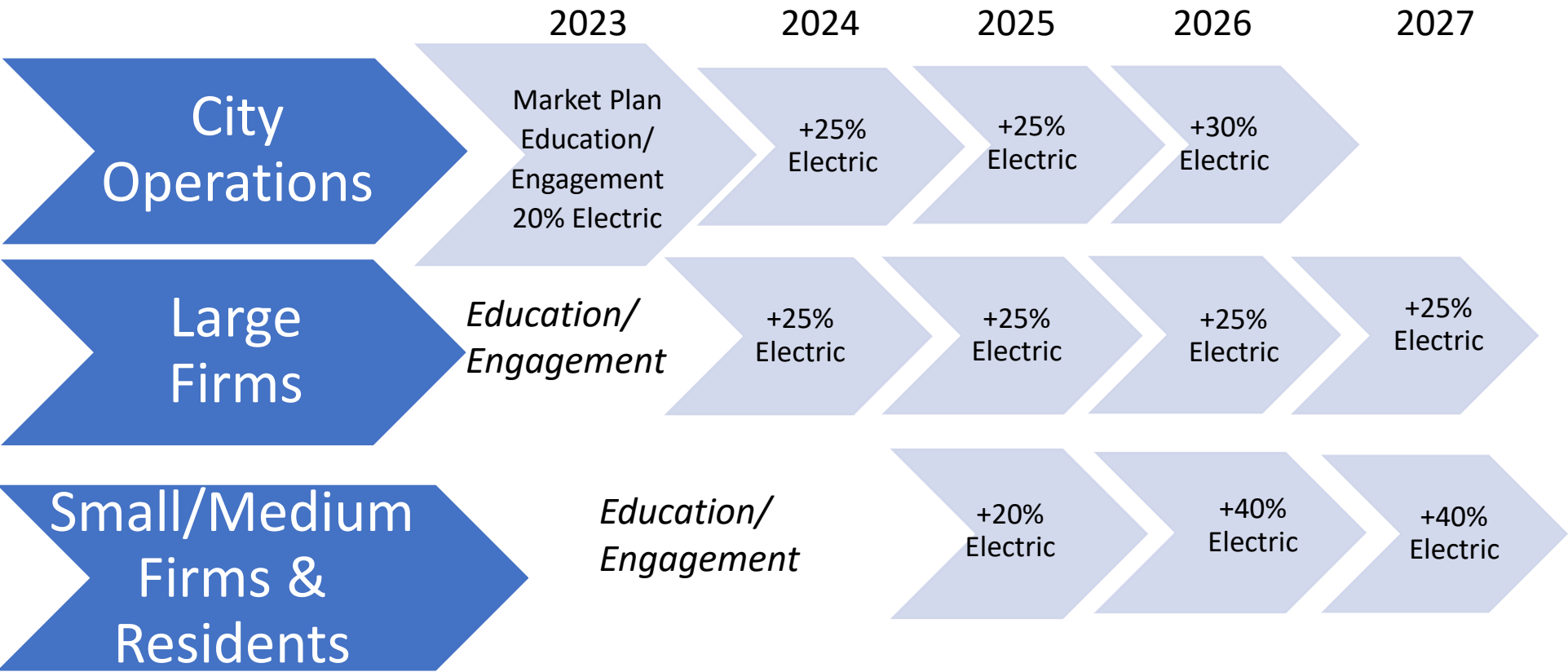




# Implementation Option 1: Transition by 2030



# 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.







**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

# 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
<b>Data Sources:</b> <a href="https://www.protocolreviews.com/gas-vs-battery-powered-leaf-blowers/">https://www.protocolreviews.com/gas-vs-battery-powered-leaf-blowers/</a>   <a href="https://www.popularmechanics.com/home/tools/g37442980/best-gas-leaf-blowers/">https://www.popularmechanics.com/home/tools/g37442980/best-gas-leaf-blowers/</a>							

\* 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

	dB	$\mu\text{Pa}$		
<b>PAINFULLY LOUD</b>	160	$2 \times 10^9$	fireworks at 3 feet	OSHA limit for impulse noise
	150		jet at takeoff	
	140	$2 \times 10^8$	threshold of pain	
	130		power drill	
<b>UNCOMFORTABLY LOUD</b>	120	$2 \times 10^7$	thunder	90-105 dB leaf blower at operators ear 90 dB OSHA permissible exposure limit
	110		auto horn at 1 meter	
	100	$2 \times 10^6$	snowmobile	
	90		diesel truck, food blender	
<b>VERY LOUD</b>	80	$2 \times 10^5$	garbage disposal	62-75 dB Leaf blower at 50 feet
	70		vacuum cleaner	
<b>MODERATELY LOUD</b>	60	$2 \times 10^4$	ordinary conversation	
	50		average home	
	40	$2 \times 10^3$	library	
<b>QUIET</b>	30		quiet conversation	
<b>VERY QUIET</b>	20	$2 \times 10^2$	soft whisper	
<b>BARELY AUDIBLE</b>	10		rustling leaves	
	0	$2 \times 10^1$	threshold of hearing	

dB= decibels  
 $\mu\text{Pa}$ = micro Pascals

OSHA Hearing Protection Threshold

Typical Municipal Noise Ordinance Threshold

Provided by California Air Resources Board, 2000

