

Memorandum



CITY OF DALLAS

DATE June 6, 2023

TO Honorable Chair Blackmon and Members of the Environment & Sustainability Committee

SUBJECT **Landscape Equipment Transition Update**

In September 2022, the Environmental Commission (EVC) recommended that the City develop a plan to transition from gas-powered landscape equipment to battery and/or electric landscape equipment. In November 2022, the Environment and Sustainability (ENVS) Committee requested that OEQS develop a landscape equipment transition plan. Thereafter, OEQS contracted with Modern Geosciences (Modern) to support the development of a landscape equipment transition (LET) plan. OEQS continues to meet with Modern to coordinate the development of the plan and provide monthly updates to the ENVS Committee.

Environmental and Health Background:

Gas-powered landscape equipment are significant sources of noise pollution. The transition to battery and electric-powered mowers and/or leaf blowers, for example, may result in the reduction of up to approximately 35 decibels and a reduced noise radius for both high frequency and low frequency sound waves. High levels of noise pollution may cause, among other things, hearing loss, cognitive impairment, stress, hypertension, productivity loss, and may negatively affect a child's neurological development.

Gas-powered landscape equipment are also significant sources of hazardous air pollutants and volatile organic compounds (VOCs) like benzene and 1,3 butadiene; and criteria pollutants like particulate matter. Emissions from these sources: contribute to a ground level ozone in the region, which is currently in severe nonattainment for the [2008 ozone standard](#); and increase particulate matter in a region that may be in nonattainment for particulate matter in the future. Health impacts from the hazardous air pollution, volatile organic compounds, and particulate matter emitted from gas powered landscape equipment range from cardiovascular, respiratory, and neurological problems to cancer.

Stakeholder Engagement Efforts:

Staff are continuing internal and external stakeholder meetings.

- Internal: Seven departments (AVI, CCS, DFR, DWU, PBW, PKR, SAN), have been given their inventory goals and have started on their first transition goals. Parks and Recreation (PKR) received trial gear to test on battery life and weight fatigue during a workday.
- External: OEQS continues to engage members of the public, including homeowners, landscape companies, landscape associations, the Dallas Independent School District (DISD) and Dallas College. While working city events,

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staff have distributed surveys of equipment use to gauge interest and inventory. Staff have also distributed surveys through City websites, Council newsletters, kiosks in libraries and recreation centers, and other methods. To date, OEQS has received over 500 survey responses from residents and few responses from landscape companies and associations. Preliminary review of survey responses indicates a polarized electorate with a good understanding of the “why” for conversion, but concerns about the costs related to transitioning to electric equipment. There was consistent support for some type of incentive program to support the transition effort.

Equipment Inventories:

The inventory of City equipment is nearing completion and departments are working towards the goal of transitioning 20% of City equipment by the end of the calendar year and 100% of City equipment by 2026. The collection of commercial and residential inventories is ongoing to achieve accuracy, and a statistically relevant survey sample set.

Program Media Campaign:

From March through May 2023, OEQS has conducted a robust LET media campaign. OEQS has used a number of media outlets, including: *Dallas Morning News* (publication and online); *Al Dia* (Spanish Online); *Advocate Magazine* Lakewood; Preston Hollow, Oak Cliff, and Lake Highlands (Online banners and newsletters); and radio stations WRR and KERA.

State Legislation:

The City Attorney’s Office is currently evaluating the impact of recent state legislation on a landscape equipment transition plan. Legislation of interest includes but may not be limited to: SB1017 (HB 2374), HB 2127, HB 764 and SB 104.

Review of Draft Plan:

Modern has delivered a draft plan to staff, which is currently under review. Based on the draft plan and recent state legislation, staff are evaluating an approach that: continues the City’s transition to battery and electric equipment; and offers incentive programs to commercial and residential customers that are consistent with existing programs throughout the country.

Lead by Example

OEQS is evaluating an approach that continues the City’s transition from gas-powered landscape equipment to battery and electric equipment. City departments have identified their inventories and are now working to transition twenty percent of the City’s inventory by the end of the calendar year. Departments have identified operational requirements and funding as primary concerns. OEQS continues to work with departments to ensure a transition that meets the needs of our departments. While we anticipate this conversion to occur as part of an ongoing equipment replacement program (e.g., replace as equipment becomes irreparable), the annual replacement budget supporting departmental conversion to electric in lieu of gas is currently estimated at \$600,000 per year over the next 4 years.

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Resident and Commercial Incentive Programs

OEQS is evaluating an approach that offers a voucher/rebate program to residents. Assuming a \$100 - \$150 voucher per equipment, OEQS estimates that the program would cost approximately \$9 million - \$14 million to replace leaf blowers and approximately \$36 million - \$54 million to replace all gas-powered equipment. These numbers are based on existing data, which has identified approximately 222,000 single family homes in the City of Dallas. These costs do not consider households that have already started the transition. We would also clarify that this transition would be coupled with a robust education and outreach effort over the period of three to five years. A potential annual cost to support this would be approximately \$2 to \$3 million per year for gas-powered blowers only, to \$7 to \$9 million for an all-equipment inclusive transition. We are in communication with both procurement and the manufacturers to identify potential for equipment- and or commercial partnerships to support the transition program.

OEQS is also evaluating a voucher/rebate program to businesses. OEQS continues to identify the inventories of businesses that may take advantage of a voucher/rebate program. Based on initial conversations with commercial stakeholders, while there is concern around mandated conversion, there is general interest in taking advantage of a voucher/rebate program. Given the commercial interest and the human health and environmental impacts from gas-powered equipment, OEQS is considering offering a \$100-\$150 voucher/rebate per equipment. The City could identify a specific annual amount to support the program and offer the program until those funds are depleted, consistent with programs in other jurisdictions.

Should you have any questions, please reach out to Carlos Evans, Director, Office of Environmental Quality & Sustainability at 469-617-1925 or carlos.evans@dallas.gov.



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