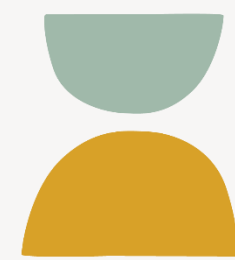




WISDOM EN FAMILIAS, LLC



**terra  
lumina**

# Commercial Landscaping Equipment Electrification Market Study

# Meet the Team



**Amanda Mortl** (she / they)  
Austin Climate Action & Resilience



**Sarah Talkington** (she / her)  
Austin Parks & Recreation



**Leonor Vargas** (ella / her)  
Wisdom En Familias, LLC



**Jen Cregar** (she / her)  
Terra Lumina Consulting

# Why This Study Matters

- Fossil fuel landscaping equipment = high noise + air pollution
- Health risks for workers and community members

In 2020, landscaping equipment in Travis County created an estimated:

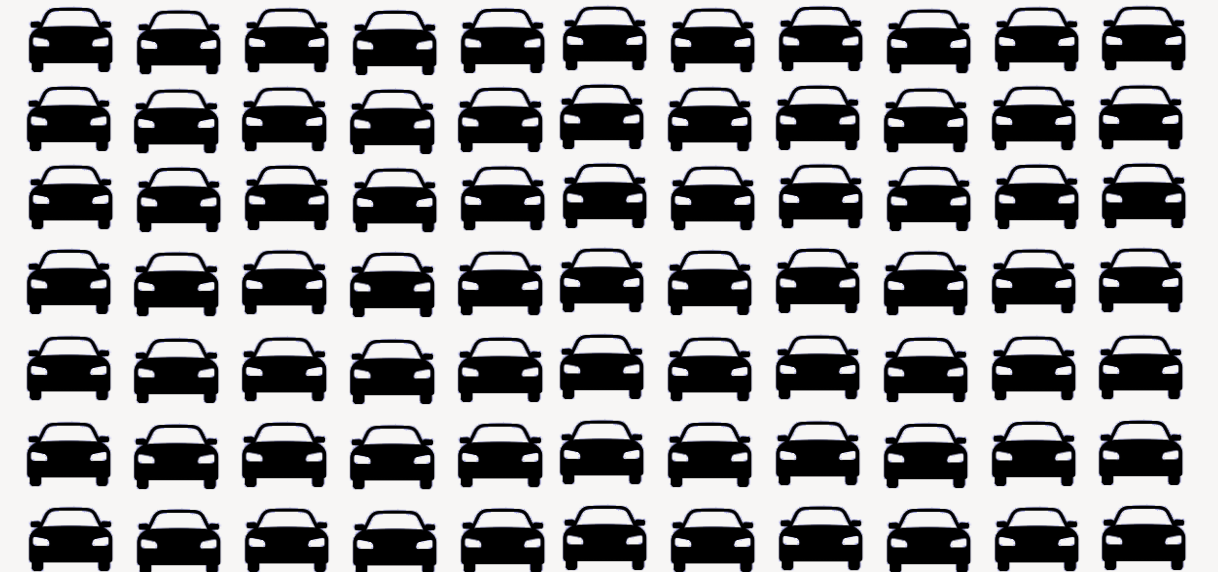
154,400 tons of carbon dioxide (CO<sub>2</sub>),  
like driving nearly 34,000 cars for a year



361 tons of nitrogen oxides (NO<sub>x</sub>),  
like driving more than 161,500 cars for a year

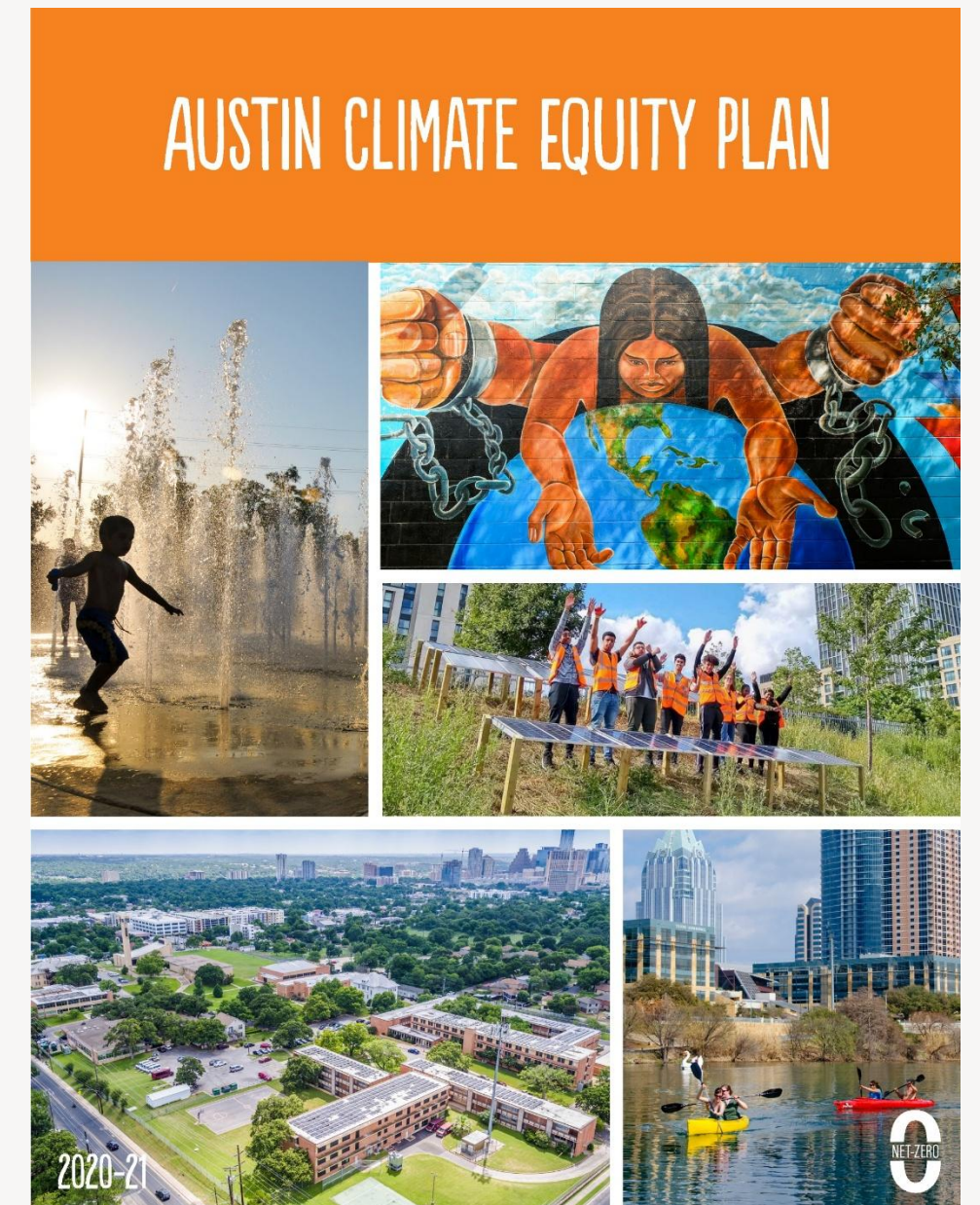


128 tons of fine particulate matter (PM<sub>2.5</sub>),  
like driving more than 1.3M cars for a year



# Background & Policy Context

- **Austin Climate Equity Plan:** net-zero greenhouse gas emissions by 2040
- **Austin-Round Rock-San Marcos MSA Regional Air Quality Plan:** maintain compliance with federal air quality standards
- **Council resolutions:**
  - [20240229-058](#): Green purchasing
  - [20240307-020](#): Rebates + exchange programs

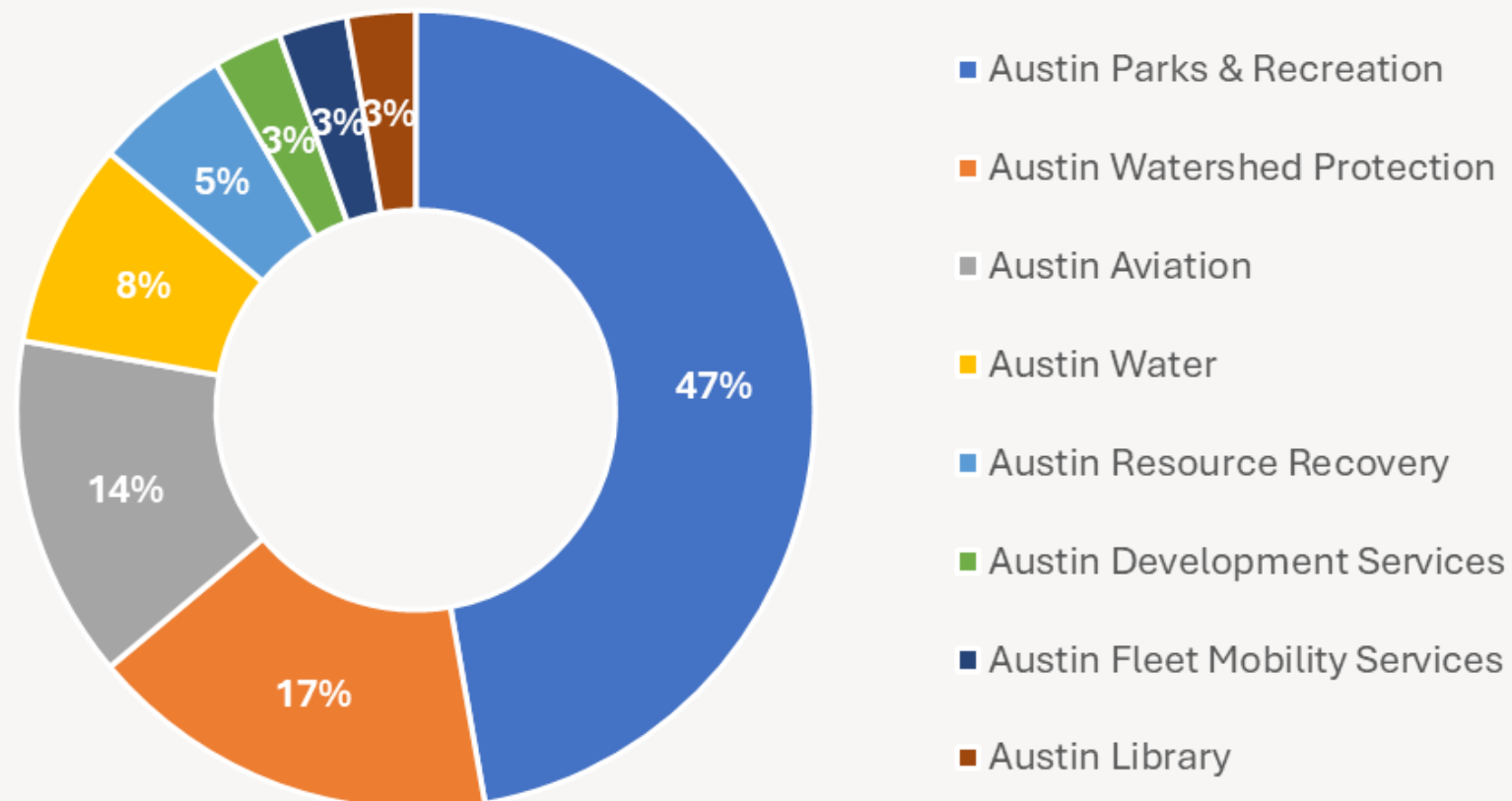


# Methodology

- Online survey (53 responses)
- Interviews (32 local, 7 national)
- Site tours

- Diverse representation:
  - City of Austin and other govt. staff
  - Minority / woman-owned businesses
  - Small and large businesses
  - Local and national businesses
  - Early adopters

City of Austin Staff Participation by Department



# Electric Equipment Benefits

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- Quieter
- Cleaner
- Easier to handle (for some)
- Safer (no fuel handling, improved ergonomics for some)
- Less maintenance
- Potential for lower lifecycle costs

# Electric Equipment Challenges

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- Insufficient power output
- Insufficient battery life
- Charging constraints
- Higher upfront cost
- Maintenance & disposal uncertainty
- Heavier and less ergonomic (for some)
- Cultural resistance

# Market-Ready Electric Equipment

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- Smaller ( $< 20$  bar) chain saws
- String and hedge trimmers for light-duty applications
- Leaf blowers for light-duty applications
- Push, walk behind, automated (robotic) mowers, and smaller riding mowers for smaller-acreage and/or single-site applications
- Carts / utility terrain vehicles

# Not Yet Viable Electric Equipment

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- Larger ( $\geq 20$  bar) chain saws
- String and hedge trimmers for heavy-duty applications
- Leaf blowers for heavy-duty applications and some operators
- Larger riding mowers and automated (robotic) mowers for larger-acreage and multi-site applications

# Lead by Example Recommendations

- **Prioritize outcomes** over technology type.
- Implement a **phased rollout**.
- Develop **citywide charging infrastructure**.
- Use **lifecycle analysis** for decision-making.
- **Leverage service agreements** to shift market.
- Invest in **workforce development**.
- Plan for equipment **end-of-life management**.



# APR Landscaping Equipment Electrification Pilot Program



# Incentive Program Models

## Rebate / voucher

**Electric Landscaping Equipment Voucher**




This voucher covers 60% of the cost of electric landscape equipment (before tax). Maximum grant amount covered by PACE is limited to \$5,000. The participant pays 40% of the cost of equipment after any eligible State of Colorado discounts from the Approved Retailer and 100% the sales tax on the transaction.

**Voucher Valid Until:** Sunday, September 21, 2025

<b>Pre-Approved Participant:</b>	<b>Approved Retailer:</b>	<b>Boulder County Contact:</b>
Mesa Landscape Management LLC Scott Fath P.O. Box 19876 Boulder CO 80308	Earls Saw Shop John Nicholas Moser 3695 Frontier Ave Boulder, CO 80301	Partners for a Clean Environment Nat Williamson PO Box 471 Boulder, CO 80306

**Please review terms & conditions and sign:**

- This voucher from Partners for a Clean Environment (PACE), a program of Boulder County (the "Voucher") is valid for in-store purchases only and is valid until September 21, 2025 and may not be used after that date.
- This Voucher may only be used by the Approved Retailer to whom it is granted and is void if altered, copied, transferred, auctioned, or sold.
- Eligible equipment must be new, all-electric, and AGZA field-tested certified commercial landscaping. This program is offered through retailers located in Boulder County. The retailers will use their expertise to help participants select the right eligible commercial landscape equipment.
- This Voucher has no cash redemption value.
- This Voucher may be used at the Approved Retailer for a total of \$5,000 not to exceed 60% (before sales tax) towards approved electric lawn & garden equipment. No substitutions from approved equipment are available. The Voucher cannot be used for prior purchases. The Voucher can only be used ONCE per customer and must be surrendered at the time of purchase. The Voucher is subject to product availability.
- You cannot use the Voucher in conjunction with any other sales discounts or promotional offers.
- Boulder County reserves the right to vary or discontinue the Voucher program at any time.
- The terms and conditions of this Voucher are not intended to interfere with or supersede any terms and conditions or manufacturer's warranties associated with the equipment.
- Subject to the retailer's terms and conditions, items bought using this Voucher may be returned to the retailer for a refund up to the amount spent out-of-pocket by the Voucher holder on returned items. Other retailer terms and conditions regarding returns may apply including restocking fees that will be the responsibility of the voucher holder.
- The Voucher recipient may not sell or lease the approved electric lawn and garden equipment bought using this voucher until 2 years after the date of sale. Vouchers will be accepted until project dollars are depleted.

## Equipment trade-in

# ONE-DAY EVENT


## Exchange Gas for Electric



Swipe for Details 

## Equipment lending

### Tool Shed Tool Request



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**My progress: 0%**

### Borrower's Information

Are you fully capable of handling lawn equipment ? Required

Yes  
 No. I am interested in getting assistance.

Borrower's Full Name and/or Organization Required

Borrower's Address Required

Address Line 2

Borrower's City Required



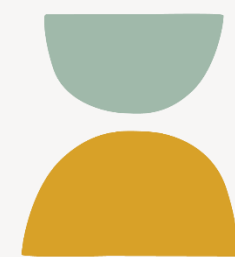
**Thank you!**

Jen: [jen@terraluminaconsulting.com](mailto:jen@terraluminaconsulting.com)

Leonor: [lvargasconsulting@gmail.com](mailto:lvargasconsulting@gmail.com)



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