

HOUSTON-GALVESTON  
CLEAN CITIES COALITION  
Q3 2023 STAKEHOLDERS MEETING

August 9, 2023

# Q3 Stakeholders Meeting

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## Agenda

1. Introductions – Vincent Sanders, *METRO / HGCCC Chair*
2. Update on Natural Gas Issues and Activities – Heather Ball, American Energy Institute
3. Department of Energy Grant Application: Repowering for Electric School Buses – Jessica Keithan, Texas Electric School Bus Project
4. Update on the Redesignation Process – J. Ben Finley, HGCCC
5. Strategic Plan – *Andrew DeCandis, HGCCC*
6. Current Funding Announcements and Updates – *Ben Finley, HGCCC*
7. Announcements of Current & Upcoming Activities
  1. Advisory Board Meetings
  2. Lunch and Learn Webinar: Renewable Natural Gas and Propane (Aug 23)
8. Adjourn meeting

# UPDATE ON NATURAL GAS ISSUES AND ACTIVITIES

Heather Ball, American Energy Institute



# Lunch-And-Learn Webinar: Renewable Natural Gas and Propane

12 PM, August 23, 2023

The Houston-Galveston Clean Cities Coalition is hosting a Lunch & Learn Webinar with the Lone Star Clean Fuels Alliance and the Texas Natural Gas Foundation. Come hear why many fleet managers across Texas are transitioning to renewable natural gas and propane, and share your experiences.

[Start now](#)

Register at [Houston-Cleancities.org](http://Houston-Cleancities.org)



# Webinar Agenda



Introduction to Clean Cities

Overview of Renewable Natural Gas in fleets

Overview of Renewable Propane in fleets

Fleet experience using Renewable Natural Gas

Fleet experience using Renewable Propane

Tax treatment Renewable Natural Gas and Propane

Q&A and wrap up

# Speakers

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Elizabeth Munger

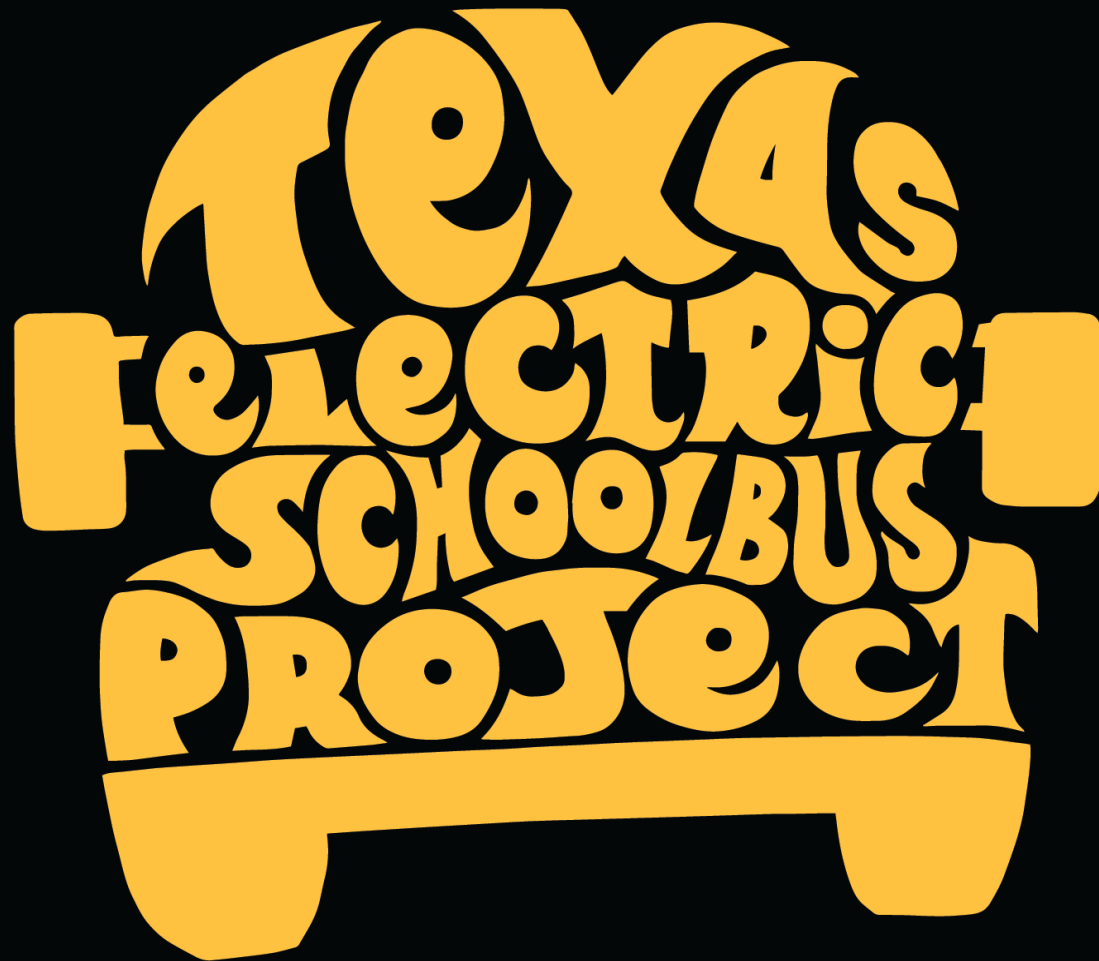
Lone Star Clean Fuels Alliance

elizabeth@lonestarcfa.org

# DEPARTMENT OF ENERGY GRANT APPLICATION: REPOWERING FOR ELECTRIC SCHOOL BUSES

Jessica Keithan, Texas Electric School Bus Project





# **Mission:**

**To facilitate the speedy and equitable transition to a zero-emissions school bus fleet in Texas.**



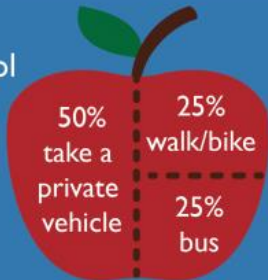
# WHY ELECTRIC SCHOOL BUSES?

- **More than 95% of school buses in the United States run on diesel fuel.**
- **Diesel exhaust is a known carcinogen and is linked to serious physical health issues like asthma and heart disease.**
- **Exposure to diesel exhaust impairs cognitive development.**
- **Children are especially at risk.**



# How Do Kids Get To School?

Pre-high school students who live close enough to walk/bike to school



About **20 million** pre-high school students live too far to walk/bike to school.



**50%**  
ride the bus



**45%**  
driven in a  
personal vehicle

Low-income students



**60%**  
ride the bus

Non-low-income students



**45%**  
ride the bus

**80%** of low-income families own at least one vehicle and most still take the school bus.



**60%**  
ride the bus

For non-low-income families, over **99%** own at least one vehicle, and most take a private vehicle.

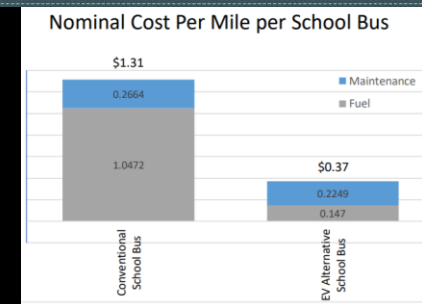
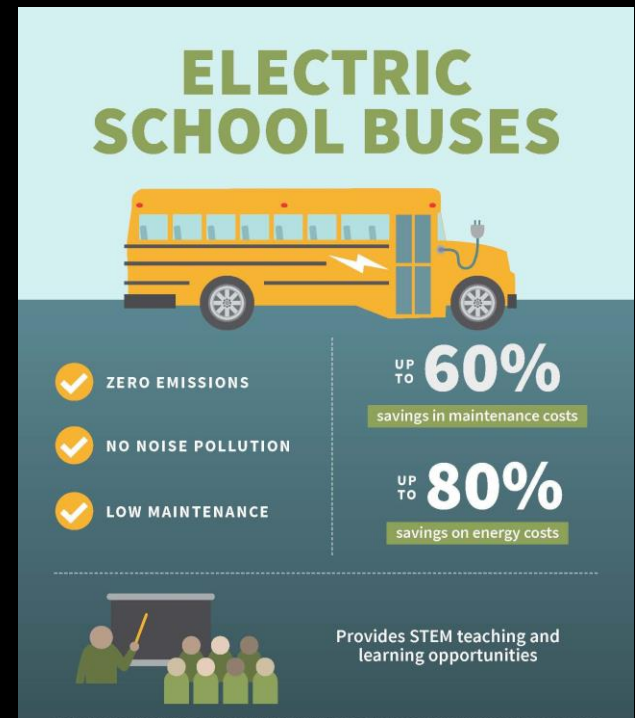


**>50%**  
driven in a  
personal vehicle



# Benefits of ESBs

- **Environmental**
- **Reduced operating costs**
- **Energy Efficiency**
- **Quiet operation**
- **Health and safety**



# What is taking so long?

**High upfront cost**

**Limited charging infrastructure**

**Lack of information and awareness**

**Limited availability/long waits**

**Need for infrastructure upgrades**

Blue Bird	BYD	IC Bus/Navistar	Lion Electric	Thomas Built Buses	Blue Bird
Blue Bird Vision	Type C	IC CE Series Electric Bus/PB10 E	LionC	Saf-T-Liner C2 Jouley	Blue Bird Vision
\$308,029 (FL)- \$491,330 (WA)	\$325,850 (NY)- \$413,500 (WV)	\$280,920 (LA)- \$447,861 (FL)	\$341,229 (ME)- \$399,055 (WA)	\$309,571 (LA)- \$425,347 (KY)	\$308,029 (FL)- \$491,330 (WA)



# Who is TESBP?

Education and Outreach

App

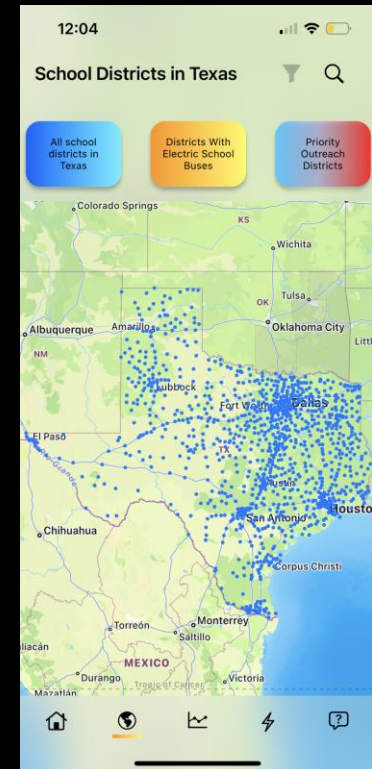
Re-powers

Learning tools

Content and events

Hub for information and networking

CALL TO ACTION



# Why re- powers?

**Drastically reduced upfront cost**

**Faster delivery, shortened supply chain**

**Stewardship of existing resources**

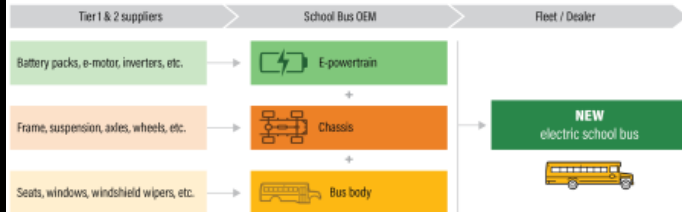
**Creation of regional jobs**

**Ease of transition**

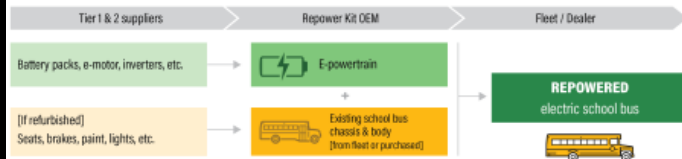
**Answer for electrifying developing world**

## New vs. Repower School Bus Supply Chains

### NEW ELECTRIC SCHOOL BUS SUPPLY CHAIN



### REPOWERED ELECTRIC SCHOOL BUS SUPPLY CHAIN



Note: New Electric School Bus Supply Chain depicts one model for bus supply and assembly. Depending on bus type and original equipment manufacturer (OEM), this process can vary. Source: WRI 2023.

01/2027

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# Vehicle Repower Process

## 1. Existing Bus

Used bus sourced from the fleet or purchased



## 2. Inspect & Evaluate

Examine structural integrity required for EV components



## 3. De-content

Remove internal combustion systems (engine, fuel tank, etc.)



## 4. Refurbish

Perform cosmetic and mechanical updates to the bus as needed



## 5. Repower

Install and integrate EV drivetrain components (batteries, motor, etc.)



## 6. Commission

Vehicle undergoes testing & quality control assessment



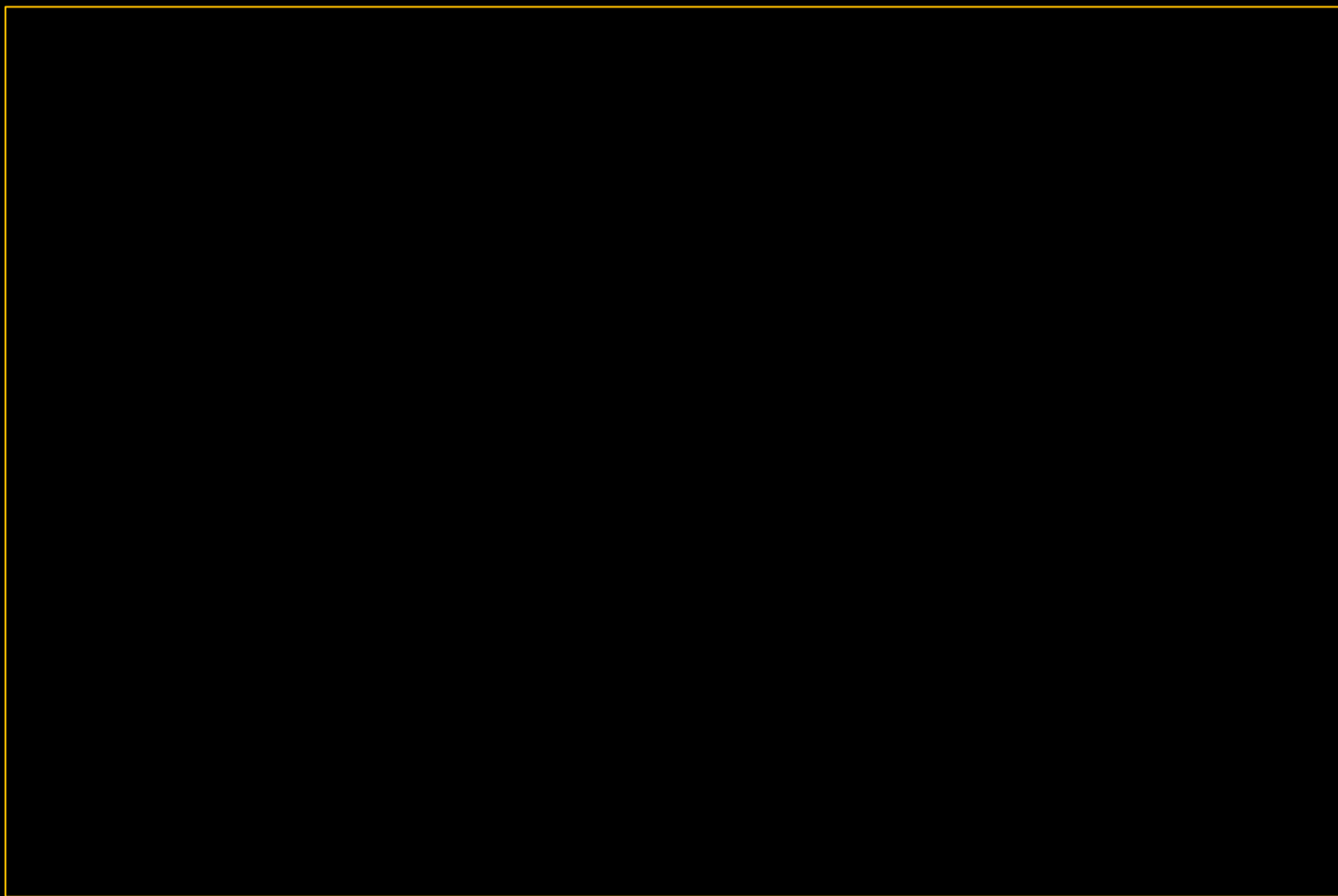
Source: WRI 2023, adapted from ABC Companies.

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# DOE Grant Project



**Re-power two school buses**

**Develop Re-power Curriculum**

**Develop business plan for Texas School Bus  
Repower Co.**

**Tour of Texas**





**[www.texaselectricsschoolbusproject.org](http://www.texaselectricsschoolbusproject.org)**



# HOUSTON-GALVESTON CLEAN CITIES COALITION REDESIGNATION RESULTS

J. Ben Finley, Houston Clean Cities Co-Director

# WE ACHIEVED REDESIGNATION

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**What does that mean?**

- We are clear to continue with our work

**What do we Need to do?**

- Increase Membership
- Increase submittals to the Annual Survey / Report
- Increase Stakeholder activity

**What did we promise?**

- Expo in 2024 Q1
- Training Webinar in “Green Jobs”
- Webinar on “Climate Action / Sustainability Planning”
- Coalition Strategic Plan

# Highlights

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- Partnership Agreements
  - 42 Organizations signed the Partnership Agreement
    - Used Partnership Agreements process to poll Stakeholders on future interest to help guide our direction
    - Aided in cleaning records
- 2 Mini-presentations from Stakeholders
  - Houston Metro – Climate Action Plan
  - Center for Houston's Future – Hydrogen Future in the Region
- Participation of Stakeholders
  - Attendance
  - Questions and comments

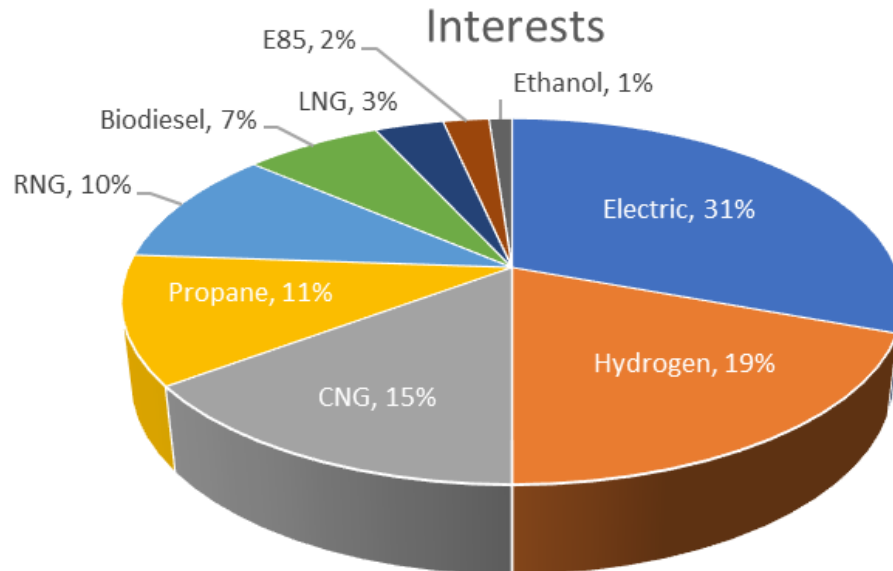


# Highlights

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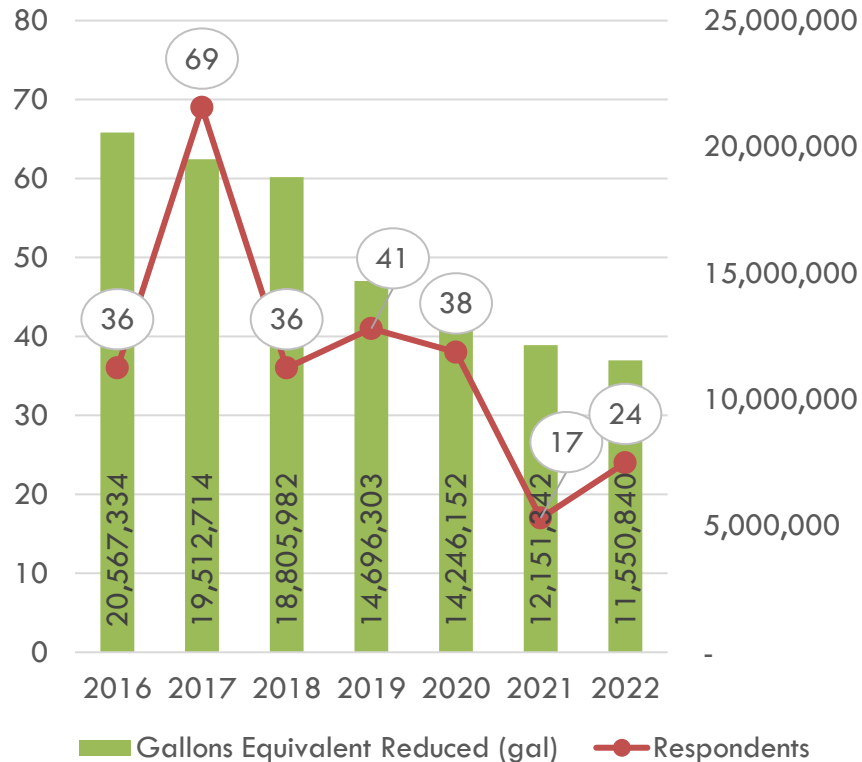
## Future Interests of Partners:

31% interest Electric  
19% interest in Hydrogen  
15% interest in CNG  
11% interest in Propane

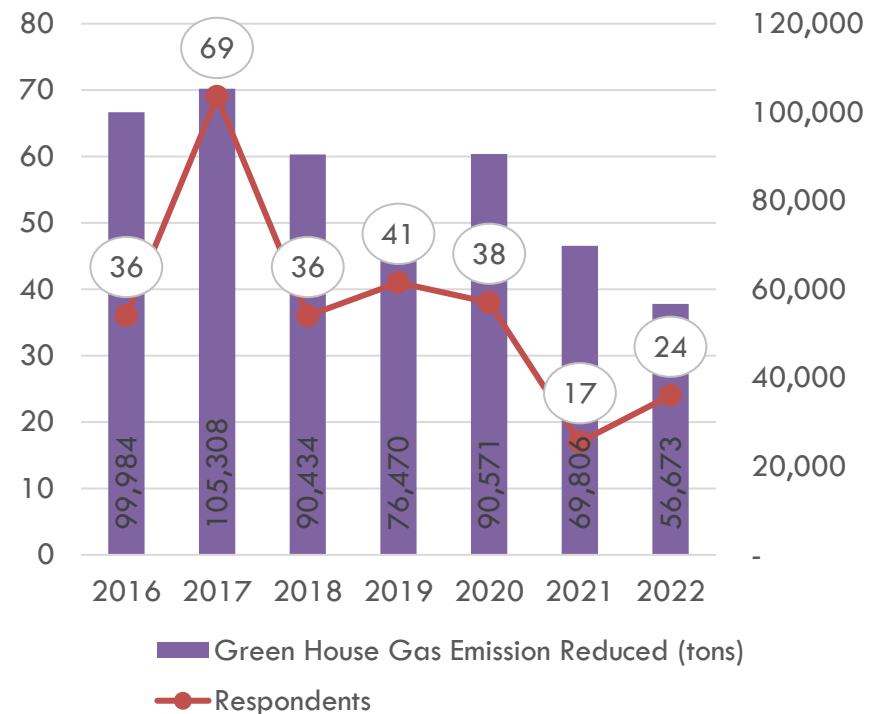


# Highlights

Annual Survey Results = Gallons Equivalent Reduced (gal)



Annual Survey Results = Greenhouse Gas Emission Reduction (tons)



# Where We Need to Improve

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- Submittals to Annual Report
- Communication
  - Newsletter confusion
  - Documenting Stakeholder outreach efforts
- Training in decarbonization planning

# STRATEGIC PLAN

Andrew DeCandis, Houston Clean Cities Co-Director

# What Is Strategic Planning?

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- A clear, well-defined framework that guides an organization's decision-making over 3 to 4 years.
- A plan that clarifies or establishes the mission, vision, and goals of an organization.
- A method to develop strategies to build internal and external facing mechanisms and organizational capacities needed to achieve identified goals.

# Mission & Vision

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**Mission:** Clean Cities coalitions boost the country's energy security, economic vitality, and quality of life by advancing affordable, efficient, and clean transportation fuels and technologies.

**Vision:** Defined by specific coalition context such as local priorities.

## Guiding Questions:

- ❑ What is the coalition's overarching purpose that drives its activities?
- ❑ What broader change do we hope to create?
- ❑ What does success look like 10 to 20 years from now?

# SMART Goal Development

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## **Specific, measurable, achievable, relevant, time bound goals**

- ❑ Record, measure, and evaluate interim (e.g., quarterly, annual) progress
- ❑ Demonstrate achievement toward executing the strategic plan
- ❑ Use qualitative evaluation to complement these SMART goals
- ❑ Establish external and internal goals to advance your mission
- ❑ To develop top-level goals that meet your mission that account for The unique value the coalition brings to solve regional problems

# Process

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- August: Set up a working group to begin development
- October: Complete draft strategic plan for review
- January: Finalize strategic plan

If you are interest in participating, let us know in the chat or send me an email directly:

[andrew.decandis@h-gac.com](mailto:andrew.decandis@h-gac.com)



# GRANT OPPORTUNITIES PRESENTATION

J. Ben Finley, Houston Clean Cities Co-Director

# Vehicle Purchase, Lease, Replace, and Repower

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Agency	Name	Might Be Good For	Close Date	Link
<b>Environmental Protection Agency</b>	2023 Clean School Bus Grant Program (CSB)	Public School Districts; 3 <sup>rd</sup> Parties (Contractors, Nonprofit School Transportation Associations)	8/22/23	<a href="#">Clean School Bus Program</a>
	2023 Diesel Emissions Reduction Act (DERA)	Governments and Nonprofits	12/31/2023	<a href="#">DERA</a>

# Infrastructure

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Agency	Name	Might Be Good For	Close Date	Link
Department of Energy	Domestic Manufacturing Conversion Grants	Independent School Districts	11/30/23	<a href="#">DE-FOA-0003113</a>
	Energy Storage Demonstration and Validation	Unrestricted	12/04/23	<a href="#">DE-FOA-0003036</a>

# Transit Related

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Agency	Name	Might Be Good For	Close Date	Link
<b>Texas Department of Transportation</b>	Public Transportation eGrants	Public Transportation Providers	More of a Clearinghouse	<a href="https://www.txdot.gov/eGrants">Public Transportation eGrants (txdot.gov)</a>

# Research and Development

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Agency	Name	Might Be Good For	Close Date	Link
<b>US Department of Agriculture</b>	Renewable Energy Systems and Energy Efficiency Improvements Program	Rural Small Businesses (Agriculture)	12/31/23	<a href="#">Renewable Energy Systems &amp; Energy Efficiency Improvement</a>
	Renewable Energy Systems and Energy Efficiency Improvements Program	Rural Small Businesses	12/31/23	<a href="#">REAP</a>
<b>National Endowment for the Humanities</b>	Climate Smart Humanities Organizations	Local Governments, Special Districts, Nonprofits, and Institutions of Higher Education	9/14/23	<a href="#">Climate Smart Humanities Organizations</a>
<b>Department of Energy</b>	Regional Clean Hydrogen Analysis	Unrestricted	10/07/23	<a href="#">DE-FOA-0002587</a>

# Texas Emission Reduction Program (TERP)

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All TERP programs are closed.

# Bipartisan Infrastructure Law (BIL)

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Numerous other grants for alternative fuel projects including a focus on electric powered vehicles and infrastructure from the Bipartisan Infrastructure Law (BIL), or BIL.

For a list of funding opportunities, please visit the [BIL website](#).

[Houston-Cleancities.org](http://Houston-Cleancities.org)



# ANNOUNCEMENTS OF CURRENT & UPCOMING ACTIVITIES

Open Forum

Thank You!