North Central Texas Council of Governments

Dallas-Fort Worth CLEAN CITIES

Charging Smart Cohort Session 5

Government Operations and Shared Mobility Categories

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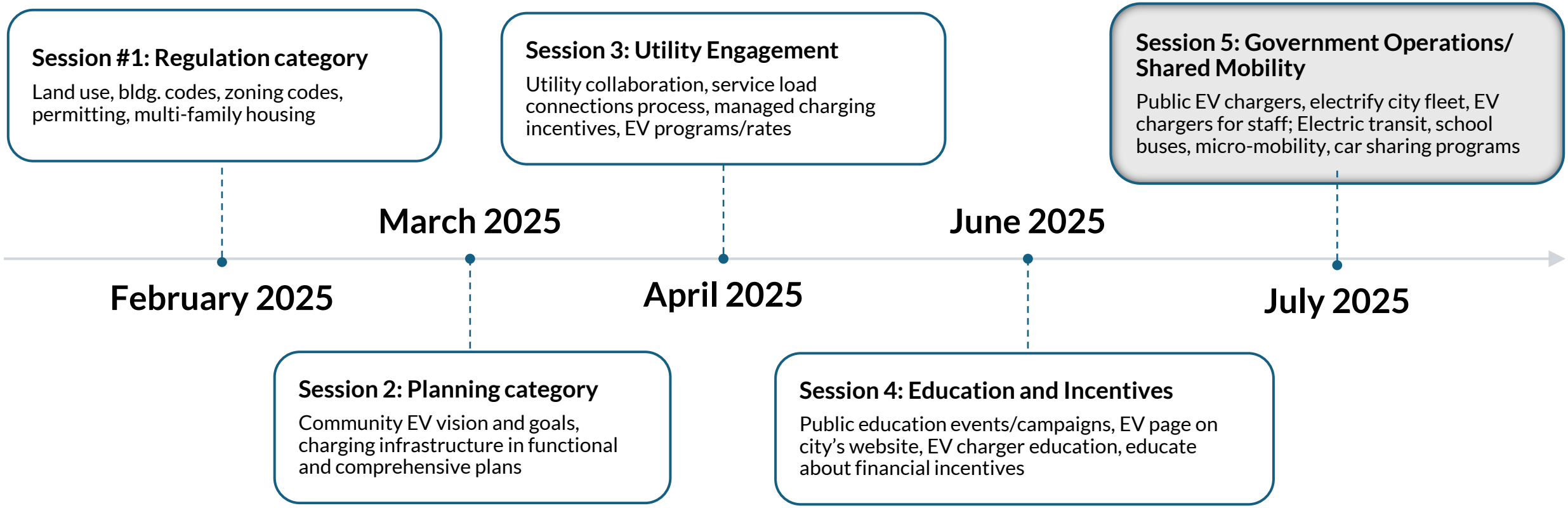
July 2, 2025

Agenda

1. Cohort Structure/Timeline
2. Our Updates
3. Peer Updates
4. Bronze Designation Requirements
5. Government Operations Category Walk-Through
6. EV Fleet Transition Planning
7. Shared Mobility Category Walk-Through
8. Group Discussion
9. Next Steps

Cohort Structure and Timeline



Our Updates

- The Electric Utilities' EV Charging Plans webpage is now available on our DFWCC website (E2.2- Promote EV programs that utilities offer)
- Local Resources Document soon to be accessible in both the Google Folder and the Teams channel
- Arlington has submitted their application for the Bronze designation!

Peer Updates

- What updates do you have on your progress on the criteria actions since the last session?
- Any questions for us?

Bronze Designation Point Breakdown

General Points

Prerequisites	35
Education & Incentives	15
Planning	10
Actions of Your Choice	20
Total (General Points)	80

R1.6: Review zoning requirements and identify restrictions that intentionally or unintentionally prohibit EVSE deployment (15 points)
R3.1: Adopt a standard EV charging infrastructure permit application process (10 points)
R3.4: Develop a charging infrastructure permitting checklist (5 points)
U1.1: Meet with utilities to discuss EV collaboration opportunities (5 points)

Government Operations Category Explanation

Focuses on actions local governments can take within their municipally-controlled assets and resources to lead by example in embracing transportation electrification

Best practices include:

- Provide publicly available EV chargers in the community
- Electrify city fleet
- Install staff-reserved EV chargers

Government Operations Action G1.4

G1.4: Install EV chargers in the community for public use based on adopted goals and timelines (20 points)

- Deploy EV chargers on city-owned property for public use
- Meet national standards
- Plan for ongoing operations and maintenance

Verification: Provide a photo of the station, invoices, or other evidence of the installation. Describe the location of the station, what national standards it is consistent with, and how operations and maintenance of the station are being considered.

G1.4 Example Action

The 2022 Congestion Mitigation and Air Quality Improvement grant covered the cost of purchasing and installing three dual-port Level II EV chargers for the City of Mesquite

Source: City of Mesquite Civic Alert

FHWA CFI Community Call for Projects

Eligible Projects: Install charging stations on public sector property in the 16-county NCTCOG region

- Set Asides for Navarro, Erath, Palo Pinto, and Somervell counties*
- Examples: Sports complexes, parks, city halls, community centers, libraries, multi-use service centers, transit stations, public schools
- Must meet relevant standards of 23 CFR 680

Eligible Applicants: Public agencies, including local governments, transit agencies, school districts, and universities

Procurement: NCTCOG conducts vendor procurement(s) and includes operations and maintenance

Funding: Federal share up to 80% of the total project cost, 20% coming from the private sector (EVSE vendor)

Proposed opening date of July 25 and proposed closing date of October 31, 2025

See more details at the June 12 RTC meeting materials and recording - Agenda Item 11

* = Set asides for Erath, Palo Pinto, and Somervell counties pending FHWA approval

Government Operations Action G2.3

G2.3: Complete a comprehensive fleet analysis (also consider plans for future EV purchases.) (10 points)

- Evaluate opportunities for vehicle electrification across city-owned fleets
- Assess factors like duty cycles, typical route lengths and/or service periods, parking locations, and vehicle ages to determine compatibility of EV procurement
- Completing this action satisfies G2.2, and awards those 10 points for a total of 20 points

Verification: Provide a link or attach the document that contains the completed analysis. If not included in the analysis, provide a memo detailing plans for future EV purchases based on the results of the analysis.

G2.3 Example Action

AVAILABLE ALTERNATIVE FUEL OPTIONS

Old Vehicle	New Fuel Type	New Vehicle Make	New Vehicle Model
Tahoe	Conventional Hybrid (HEV)	Ford	Explorer
Tahoe	Plug-In Hybrid (PHEV)	Ford	Escape
Tahoe	Battery Electric (BEV)	Ford	Mustang Mach-E
Tahoe	Conventional Hybrid (HEV)	Toyota	Sequoia
Silverado 1500	Conventional Hybrid (HEV)	Toyota	Tundra
Silverado 1500	Conventional Hybrid (HEV)	Ford	Maverick
Silverado 1500/2500HD	Battery Electric (BEV)	Ford	F150 Lightning Pro

NCTCOG's Rider 7 Grant: Project funded by the TCEQ to conduct an emissions inventory for 3 fleets in Hunt County

- Used the AFLEET tool to estimate fuel use, emissions, and cost of ownership of fleet vehicles
- Used that assessment to identify potential alternative fuel vehicle (AFV) replacements
- Calculated emissions if those AFVs were adopted

Source: City of Commerce Rider 7 Project

Government Operations Category Resources

G1.4: Install EV chargers in the community for public use based on adopted goals and timelines (20 points)

- City of Mesquite Civic Alert
- Municipal PEV and Charging Equipment Case Studies | Delaware Valley Regional Planning Commission
- Installing EV Chargers (Webinar slides) | Great Plains Institute
- Public Electric Vehicle Charging Infrastructure Playbook | Joint Office of Energy and Transportation

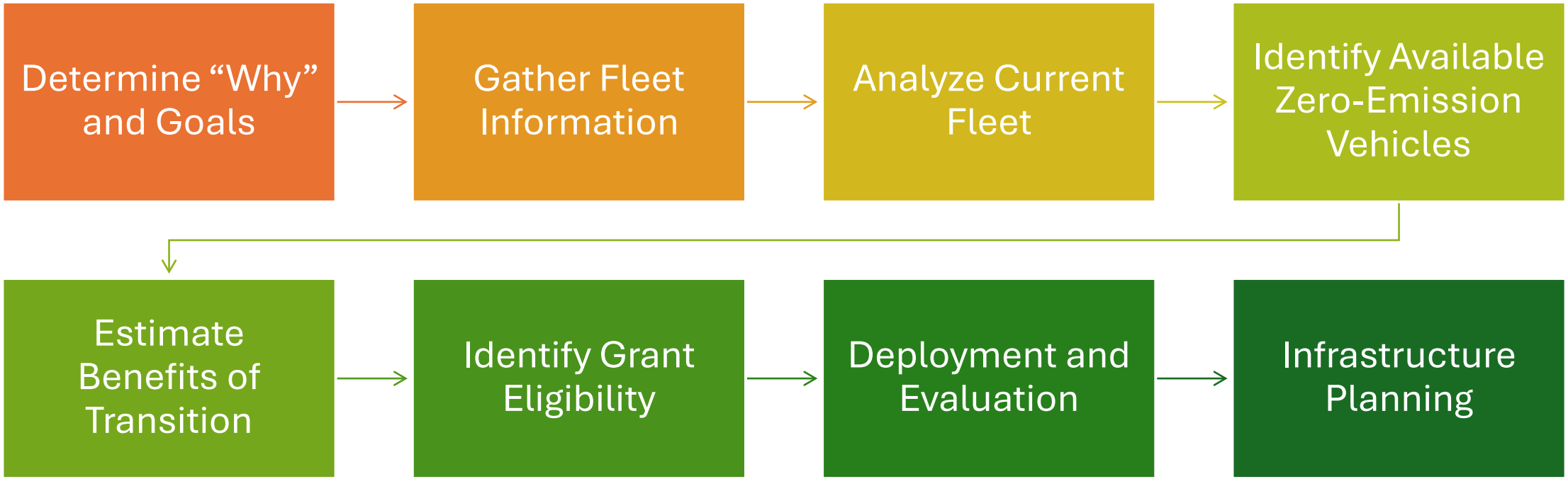
G2.3: Complete a comprehensive fleet analysis (also consider plans for future EV purchases.) (10 points)

- City of Commerce Rider 7 Project
- AFLEET Tool | Argonne National Laboratory
- How Cities and Counties Can Electrify Their Fleets | RMI
- EV Toolkit Light Duty Fleets | Xcel Energy

Electric Vehicle Transition Planning

NCTCOG Clean Vehicles Initiatives Team
7.02.2025

Developing a Fleet Transition Plan



Step 1: Determine "Why" and Goals

Example Why	Example Goals
Increase domestic security by reducing consumption of conventional fuels	Reduce gasoline and diesel consumption
Reduce costs	All new purchases will be the most fuel-efficient vehicle possible All new purchases will be the vehicle with lowest total cost of ownership
Compliance with clean fleet policy (or similar policy)	Maximize use of lowest emission vehicle Adopt an idle-reduction policy Establish practices to reduce vehicle miles traveled
Environmental impacts	All new purchases will produce less oxides of nitrogen than old vehicle All new purchases will produce less greenhouse gases than old vehicle
Interest in emerging technology	Implement GPS tracking/telematics Test 5 new all-electric vehicle types
Other	Reduce vehicle downtime

Step 2: Gather Fleet Information

Key Fleet Data Points	
Identifying Number	VIN, license plate, etc.
Vehicle Description	Warehouse box truck, cherry picker
Gross Vehicle Weight Rating (GVWR)	Determines if classified as light-duty, medium-duty, heavy-duty Classifications vary depending on funding agency -Alternative Fuels Data Center: Maps and Data - Vehicle Weight Classes & Categories (energy.gov)
Engine Fuel Type and Model Year	Engine year and fuel type determines emissions rating, which can impact air quality benefits, funding amounts, and eligibility for program
Annual Mileage	Grant programs can have minimum usage requirements, mileage helps determine if alternative fuel vehicles could meet operational needs
Operational Needs	Towing needs, frequency of use, cargo space needed, number of passengers
Years of Planned Ownership Remaining	Grant programs can require a certain amount of "life" be left in the vehicle to guarantee the funding is being used to ensure an early replacement

Telematics- If your organization cannot easily gather the previous information, it might be beneficial to install telematics. Go to Alternative Fuels Data Center: Vehicle Parts and Equipment to Conserve Fuel for more information.

Step 3: Analyze Current Fleet

Recommended Tool: Alternative **F**uel **L**ife-Cycle **E**nvironmental and **E**conomic **T**ransportation (AFLEET)
Tool Available at www.dfwcleancities.org/resources ➡ "Estimate Emissions & Vehicle Cost"

AFLEET Online:

- Easy online tool
- Simple payback

AFLEET Tool (.xlsx):

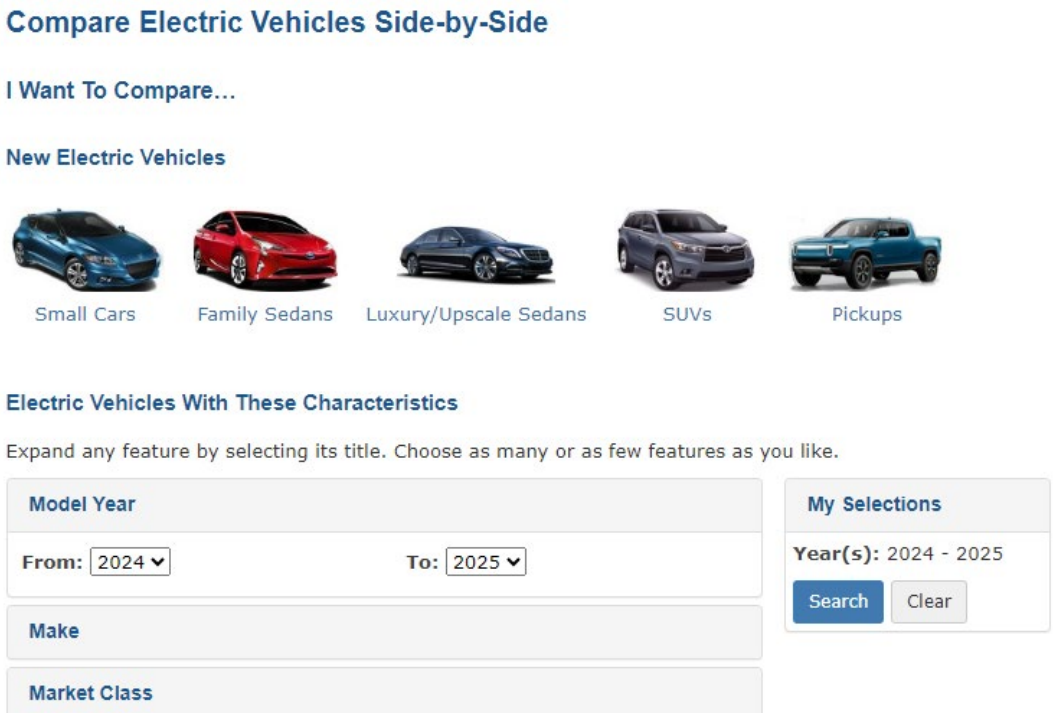
- Fleet footprint
- Infrastructure
- Simple Payback
- Total Cost of Ownership

Other Tools to Calculate Environmental and Economic Benefits of EV:

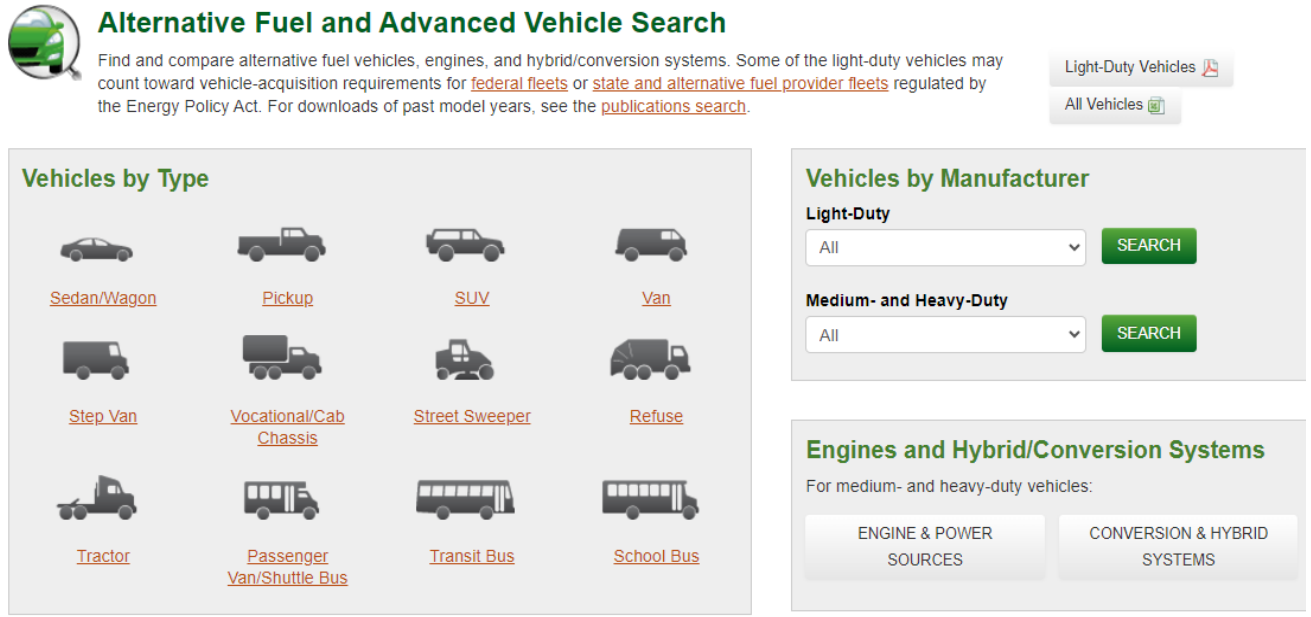
- Fueleconomy.gov
- Environmental Protection Agency's Diesel Emissions Reduction Quantifier
- Vehicle and Infrastructure Cash-Flow Evaluation (VICE) model
- Alternative Fuels Data Center Vehicle Cost Calculator
- Original Equipment Manufacturers Unique Tool

Step 4: Identify Currently Available Zero-Emission Vehicles

Light-duty vehicles: www.fueleconomy.gov



All available vehicles: Alternative Fuels Data Center Vehicle Search – www.afdc.energy.gov/vehicles/search

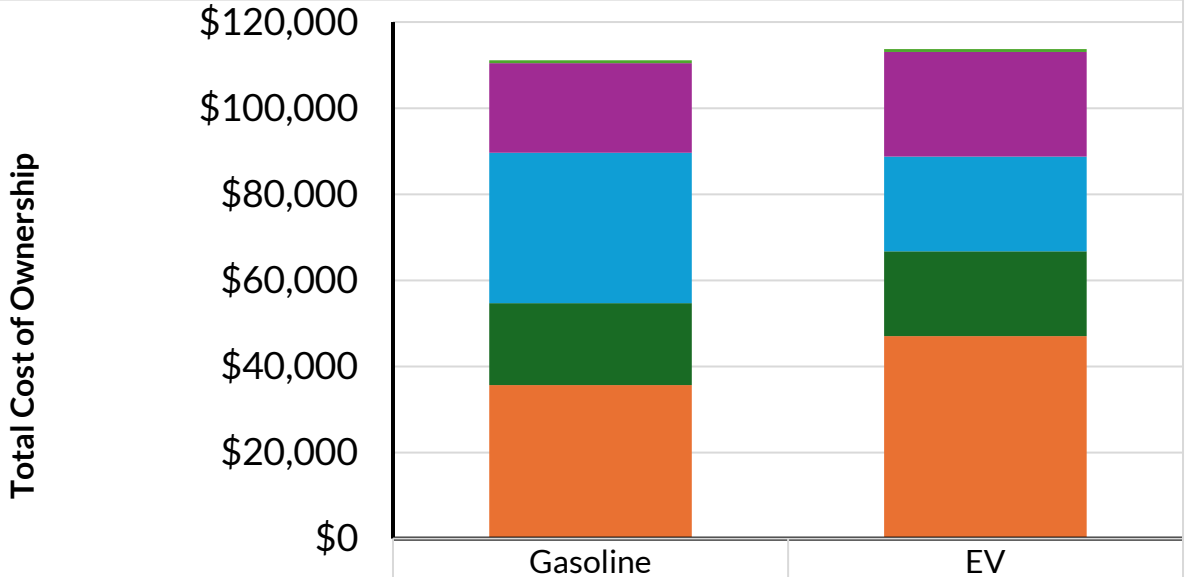


Cooperative Procurements with Electric Vehicles

- Climate Mayors Collaborative
- HGAC-Buy
- Sourcewell, through TXShare

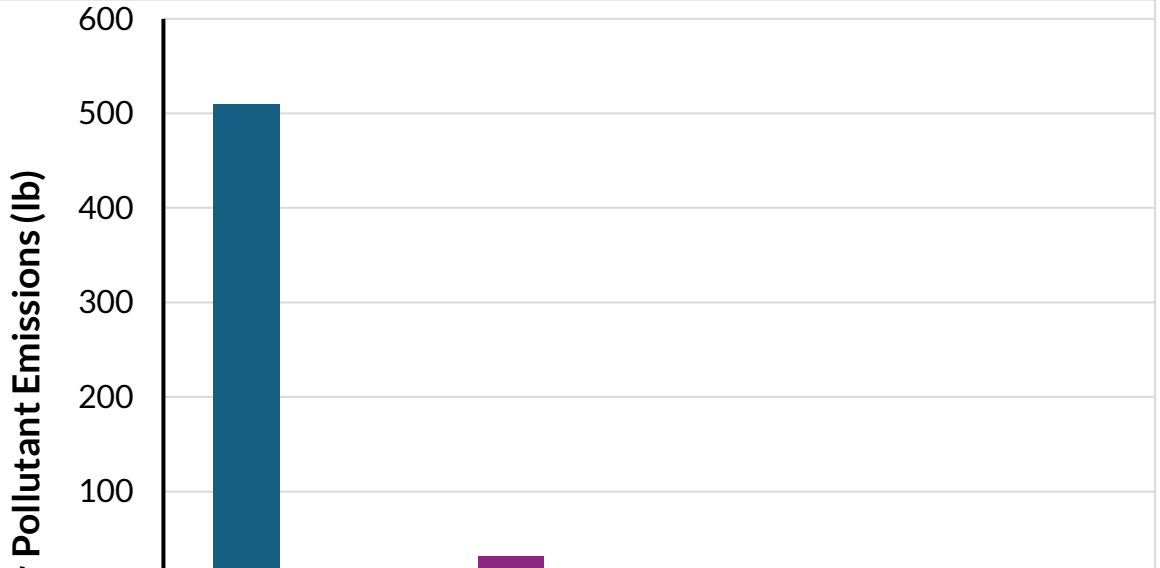
Step 5: Estimate Benefits of Transition – Chevy Blazer Gasoline vs Chevy Blazer EV

Total Cost of Ownership



	Gasoline	EV
License and Registration	$670	$670
Insurance	$20,851	$24,310
Maintenance and Repair	$34,902	$22,004
Diesel Exhaust Fluid	$0	$0
Fuel	$19,047	$19,660
Depreciation	$35,667	$47,059
Financing	$0	$0

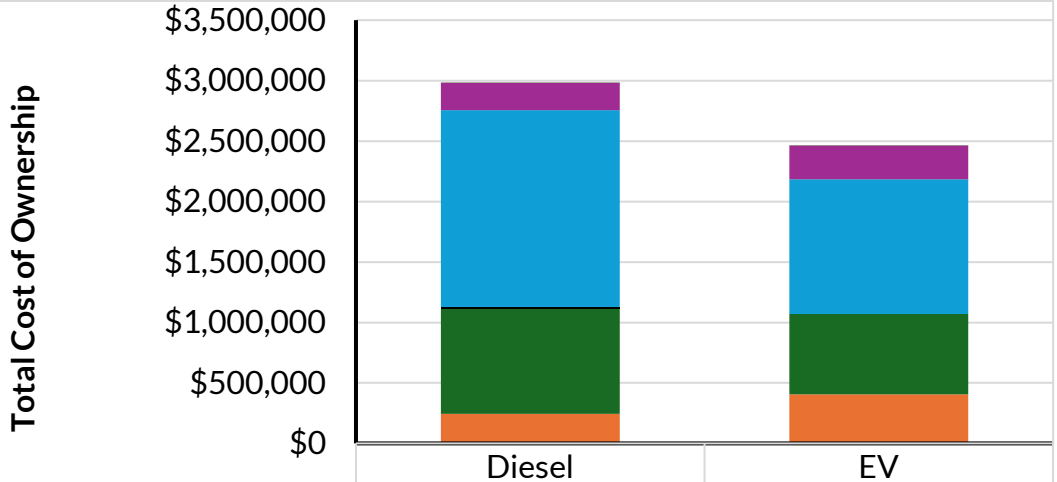
Lifetime Vehicle Operation Air Pollutants



	Gasoline	EV
CO	510	0
NOx	8	0
PM10	14	13
PM2.5	2	2
VOC	31	0
SOx	1	0

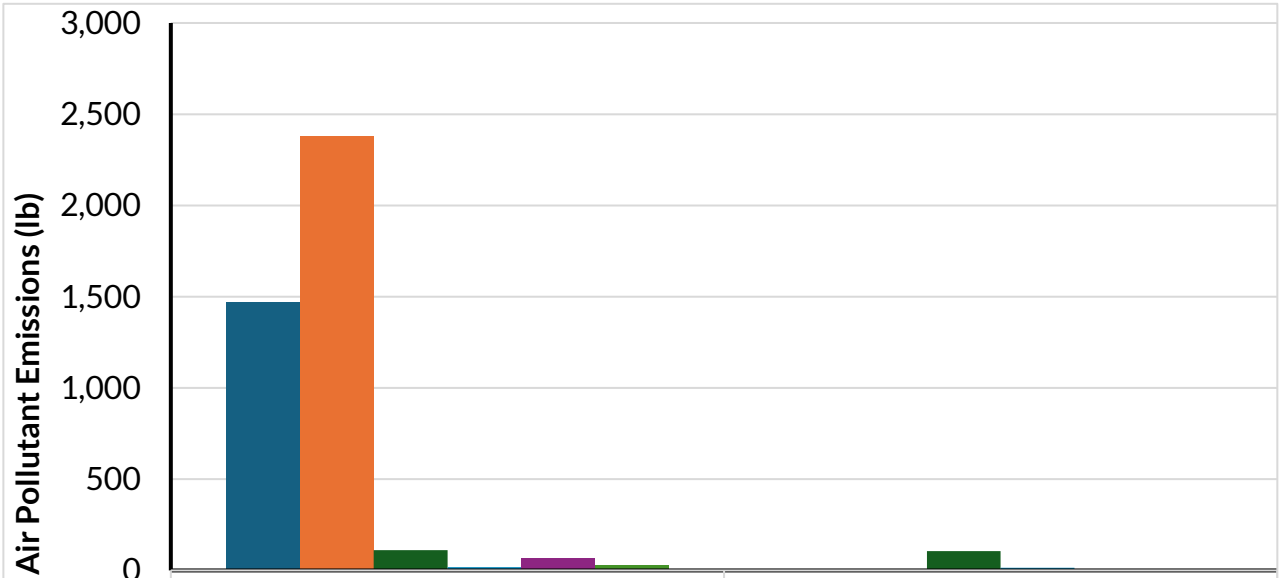
Step 5: Estimate Benefits of Transition – Diesel Refuse Truck vs. All-Electric Refuse Truck

Total Cost of Ownership



	Diesel	EV
License and Registration	$2,377	$2,377
Insurance	$226,772	$278,215
Maintenance and Repair	$1,628,005	$1,115,191
Diesel Exhaust Fluid	$12,249	$0
Fuel	$872,476	$663,515
Depreciation	$243,908	$406,513
Financing	$0	$0

Lifetime Vehicle Operation Air Pollutants



	Diesel	EV
CO	1,468	0
NOx	2,382	0
PM10	112	106
PM2.5	19	14
VOC	67	0
SOx	32	0

Step 6: Identify Grant Eligibility

Considerations for Vehicle Funding

- Can a vehicle be scrapped?
- Fuel type of old or new vehicle?
- Is infrastructure funding needed?
- Minimum funding needed to make TCO break even?
- When will the new vehicle be purchased?

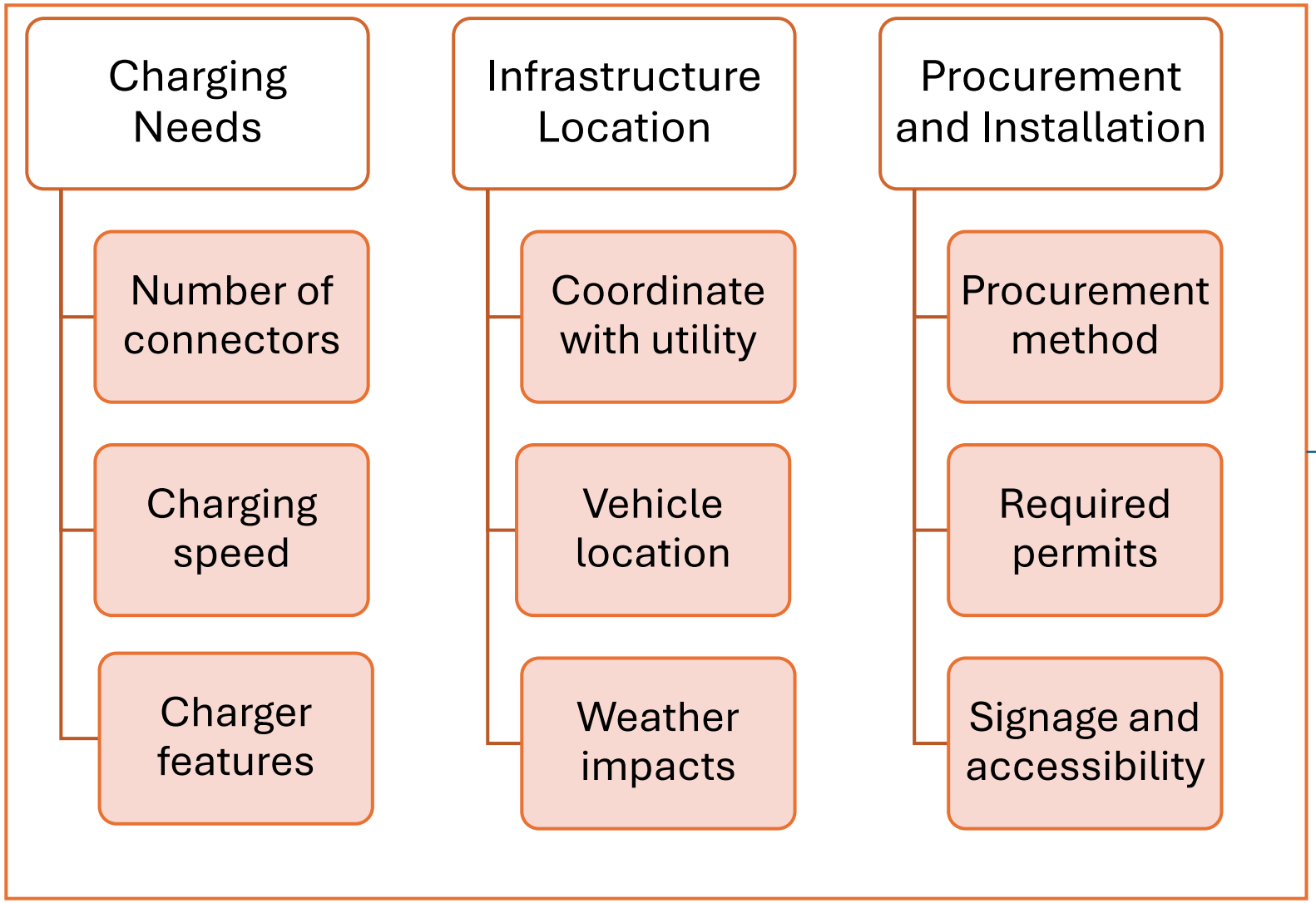
Sources of Vehicle Funding

Funding Program (s)	Funding Administrator
Texas Emissions Reduction Plan	Texas Commission on Environmental Quality
Diesel Emission Reduction Act; Clean School Bus; Clean Heavy-Duty Vehicle Grant Program; Clean Ports Program	Environmental Protection Agency
Commercial Clean Vehicle Tax Credit and Alternative Fuel Station Tax Credit	Internal Revenue Service
Rural Business Development Grants; Community Facilities Direct Loan and Grant Program;	United States Department of Agriculture
Reduction of Truck Emissions at Port Facilities	U.S. Department of Transportation
Vehicle Technologies Office Program Wide Funding Opportunity	U.S. Department of Energy
Surface Transportation Block Grant; Congestion Mitigation Air Quality; Other	North Central Texas Council of Governments
For more information on vehicle funding check out www.nctcog.org/aqfunding	

Step 7: Deployment and Evaluation

Example Why	Example SMART Goals	Example Metric to Track	Example Method of Tracking
Increase domestic security	Reduce gasoline and diesel consumption by 5% each year	Total consumption of each fuel type each year	Purchase orders; Telematics
Reduce costs	10% of new purchases will be the vehicle with lowest total cost of ownership	Initial estimated total cost of ownership; Actual fuel costs; Maintenance costs	AFLEET; Maintenance orders
Environmental impacts	50% of new purchases over next 5 years will have a 25% reduction in oxides of nitrogen and greenhouse gases	Emission rating of old vehicle and emission rating of new vehicle; Vehicle utilization; Percentage of electricity from renewable sources	Purchase orders; Telematics; Utility REP
Interest in emerging technology	Test 5 new all-electric vehicle types in next year	Driver comfort and space; Expected vehicle range to actual	Driver Feedback; Telematics
Other	Reduce vehicle downtime by 20% in next year	Number of maintenance needs per vehicle (routine and non-routine); Length of downtime	Maintenance Orders

Infrastructure Planning



Plan for future electrification across all steps

Get Involved with DFWCC

Contact us at cleancities@nctcog.org for any questions on fleet electrification, funding opportunities, or other inquiries

Upcoming webinars and events posted regularly at dfwcleancities.org/events
Past event presentations and recordings available

Follow our LinkedIn at linkedin.com/showcase/dfwcleancities

Template zero-emission vehicle transition plan coming in 2025

Sign up for our weekly email list
dfwcleancities.org/getinvolved

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Shared Mobility Category Explanation

Focuses on electrifying public transit, school buses, and micromobility

Example actions include:

- Setting bold electric conversion targets
- Provide charging infrastructure access
- Direct budgetary resources towards electrified modes
- Educate riders on the individual and collective benefits of participation

Shared Mobility Action S1.1

S1.1- Work with transit operator to complete assessment of EV transit or para-transit conversion opportunities (5 points)

Partner with local transit agencies to assess the potential for converting transit and paratransit fleets to electric vehicles.

- The assessment should analyze route characteristics, charging requirements, fuel/ maintenance cost savings, available incentives, and funding opportunities.
- Contact us if interested or need help connecting with local transit agencies

Verification: Provide a link to or attach the assessment completed in partnership with the transit operator.

S1.1 Example Action

Model	Year	Total	Estimated Transition Timeline
Chrysler Pacifica	2018	1	2023
Mercedes-Benz Metris	2019	2	2023
Toyota Sienna	2020	8	2023
Mercedes-Benz Metris	2020	5	2023
Dodge Grand Caravan	2020	2	2023
Toyota Sienna	2021	1	2023
Chrysler Pacifica	2021	3	2023
Chrysler Pacficia	2022	6	2023
Chrysler Voyager	2022	1	2023
Toyota Sienna Hybrid	2021	35	2024-2025
Toyota Sienna Hybrid	2022	24	2024-2025

Table 4. Proposed Arlington On-Demand vehicle transition.

Arlington's Zero-Emission Fleet Transition Plan:

Proposed transition of on-demand service vehicles

- Prioritizing the transition of:
  - Oldest and highest mileage vehicles
  - Gasoline vehicles before hybrid vehicles
- Replacing wheelchair accessible vehicles (WAV) will depend on the availability of electric WAVs on the market

Source: Arlington's Zero-Emission Fleet Transition Plan

Shared Mobility Action S2.1

S2.1- Work with school district to complete assessment of EV school bus conversion opportunities (5 points)

Partner with local school districts to assess the potential for converting school bus fleets to electric vehicles.

- The assessment should analyze route characteristics, charging requirements, fuel/ maintenance cost savings, available incentives, and funding opportunities.

Verification: Provide a link to or attach the assessment completed in partnership with the school district.

S2.1 Example Action

ALTERNATIVE FUEL REPLACEMENT SUGGESTIONS

Vehicle Type	Fuel Type	Make	Model
School Bus	Gasoline	Bluebird	Vision
School Bus	Electric	Bluebird	All-American
Van	Gasoline/ Hybrid Electric	Toyota	Sienna Hybrid
Van	Gasoline/ Plug in Hybrid Electric	Chrysler	Pacifica PHEV
Pickup	Electric	Ford	Lightning
Pickup	Propane	Ford	F250
SUV	Gasoline/ Hybrid Electric	Toyota	Sequoia Hybrid

- Completed the same process as the other Rider 7 Project
  - AFLEET tool
  - Cost and emissions analysis
- Most school buses are diesel and gasoline, while suggested replacements are electric or hybrid electric

Source: Granbury ISD Fleet Assessment; Rider 7 Project

Shared Mobility Category Resources

S1.1- Work with transit operator to complete assessment of EV transit or para-transit conversion opportunities (5 points)

- Arlington's Zero Emission Fleet Transition Plan
- A Strategic Assessment of Needs and Opportunities for the Wider Adoption of Electric Vehicles in Indiana | Indiana Department of Transportation and Purdue University
- Electric Vehicle Charging Needs Assessment | NASEO
- Electric Vehicle Infrastructure - Projection Tool | National Renewable Energy Laboratory

S2.1- Work with school district to complete assessment of EV school bus conversion opportunities (5 points)

- NCTCOG_Rider 7 Project Final Presentation - GISD 11.7.23.pptx
- Electric Vehicle Blueprint for Twin Rivers Unified School District | California Energy Commission
- Electric School Bus Education | U.S. Department of Energy
- Quick Start to Electrifying Your School Bus Fleet | Joint Office of Energy and Transportation

Group Discussion

Any questions, comments, or concerns?

Has your city's fleet adopted EVs?

Has your city installed public charging stations?

Has your city installed employee-only charging stalls?

Do you have any advice to share with your cohort partners? Any challenges to sort out?

Continuation of the Program

- Continue addressing your criteria actions to achieve Bronze designation
- Regular check-ins on progress via email (monthly?)
- Regular monthly office hours
- Designees will be celebrated in November/December

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