



LEWISVILLE

Deep Roots. Broad Wings. Bright Future.





LEWISVILLE 2025 BIG MOVES

- As part of Lewisville 2025 Big Move Initiative, Sustainability is considered as priority.
- In 2014 Sustainability auditors conducted Citywide audit of City facilities and fleet.
- The report recommended the City to explore ways and invest in alternative energy, including Solar, wind, Brite white roofing, electric and hybrid vehicles.

ELECTRIC & HYBRID VEHICLES

Pushback from the departments:

- None of the departments needed electric vehicles or Hybrids
- Requested Nissan to provide us two electric vehicles for a week to test run
- All departments, including Police had the Nissan Leaf for a few days
- After the test run, a few departments showed interest in these vehicles

ELECTRIC & HYBRID VEHICLES

Departments using the electric/Hybrid vehicles:

- Sustainability Office: 1 Electric Vehicle
- Neighborhood Services: 1 Electric/1 Hybrid
- Sanitarian: 3 Electric
- Fleet Pool Vehicles: 1 Hybrid
- Police/CID: 7 Hybrids
- Engineering: 2 Chevy Colorado (4 Cylinders)
- Public Works: 1 Chevy Colorado (4 Cylinders)
- Facilities: 2 Ford Transit Vans (4 Cylinders)
- ECS/Fleet: 2 LPG Forklifts

ELECTRIC & HYBRID VEHICLES

- Total Electric Vehicles: 5
- Total Hybrids: 9 (Prius, Fusion and Camry)
- Colorado Trucks: 3 (4 cylinders)
- Transit Vans: 2
- LPG Forklifts: 2

FY 17-18 Purchase:

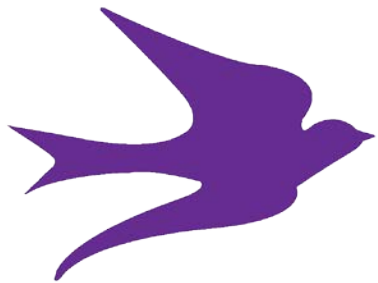
- Action Step has been initiated for 2 more electric vehicles for Environmental & Health Services and replacing F150's with 4 cylinder trucks.
- Replace Diesel/Gas landscape equipments with Propane landscape equipments.

ELECTRIC & HYBRID VEHICLES

Nissan Contribution to Electric Vehicle Infrastructure:

- For every two Nissan Leafs, Nissan Donated 2 Level II charging stations
- Nissan pledged to donate DC Fast charging station at the end of this fiscal year (80% can be charged in less than 30 minutes)

SUSTAINABILITY 2025 CITY'S ELECTRIC FLEET



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AVERAGE MPG

Miles Per Gallons:

- Hybrids – 42.7 mpg
- Ford F150 – 10.37 mpg
- Chevy Colorado – 14.8
- Transit Vans – 15.5 mpg
- Nissan Leaf MPGe – 94 MPGe = 36kWh = \$4.32

BENEFITS OF ELECTRIC VEHICLES AND WHY THEY WORK FOR THE CITY

- Reduced maintenance workload
- Big savings on gas
- Zero emissions
- 90% battery charge will cost around \$4.00
- In 2015, City was awarded Bronze Fleet Award



CITYWIDE FUEL USAGE

Fleet Fuel Usage				
Year	Fuel Usage Gallons	Fuel Usage Cost	Equipment Count	Average Gallons/Equipment
FY 10 - 11	302,082.06	\$895,141.28	221	1367
FY 11 - 12	303,732.20	\$957,156.90	243	1250
FY 12 - 13	304,390.03	\$944,448.83	254	1198
FY 13 - 14	308,844.58	\$927,677.75	303	1019
FY 14 - 15	304,424.00	\$584,125.00	321	948
FY 15 - 16	294,220.00	\$463,527.00	325	905
FY 16 - 17	169,100.00	\$295,912.77	326	519
Fuel usage reduction from 2013 - 2016: 14,624 gallons				
FY 16-17 = Up to May 3rd 2017				

FUEL USAGE REDUCTION

- All City vehicles have GPS
- Modified City working hours
- Electric Vehicles
- Hybrid Vehicles
- Fuel efficient 4 cylinder trucks



City of Houston Savings

EVObsession

City of Houston Saving \$110,000/Year From 27 Electric Vehicles

December 18th, 2013 by Zachary Shahan

We've written about it many times: electric cars are much, much cheaper to run. Based on the average price of electricity in the US, gas at \$3.50/gallon, and the average miles driven per year, the Nissan Leaf costs \$473.98/year to fuel while the Nissan Rogue costs \$1,965.25/year to fuel. Furthermore, there are big maintenance savings — no oil changes, no busted tubes or valves, no transmission problems, etc.

If you're a person who drives a lot, those fuel savings from driving electric can add up fast. If you've got a fleet of quite active vehicles, you'll be seeing even bigger numbers. Houston is now testament to this. The Texan city has 27 Nissan Leafs in its government fleet. It estimates that these super-efficient electric cars will save the local government about \$110,000 a year.



“Houston first began using electric vehicles for the environmental benefits they offer, but now we are planning to add even more EVs to our fleet because of the cost savings they bring,” said Laura Spanjian, director of sustainability for the City of Houston. “We project that electric vehicles will save the city \$110,000 per year in reduced fuel and maintenance, costs that we would otherwise have to spend on gas-powered vehicles. Also, our new car sharing program FleetShare, which we developed with ZipCar, provides easy access to the vehicles for Houston’s employees.”

Along with Houston, the city of Loveland, Colorado also just announced huge savings from switching fleet gasmobiles over to electric vehicles (again, Leafs). It didn't provide a total savings estimate, but it noted that the Leafs cost 41% to operate (for fuel & maintenance).

“Loveland needed to do something about rising fuel costs, and electric vehicles have proven to be a great solution, saving us about 41 percent overall compared to gas-powered vehicles,” Loveland Mayor Cecil Gutierre said. “In tough economic times, these savings cannot be ignored. Loveland is now aiming to convert all of its light-duty fleet vehicles that work within a close distance of the city to EVs.”

Image Credit: City of Houston

QUESTIONS

- Overall, we think that EVs are a good investment for the city
 - contributes to clean air
 - saves \$\$\$ on gas
 - reduces the workload for fleet shop
- Any Questions?