

ALT FUEL USAGE IN THE CITY OF BOSTON'S FLEET

AltWheels Fleet Day Presentation

October 15, 2018



- **Full Service Municipal Fleet Operation**

- *Director Bill Coughlin*
- *40+ Employees - including 30 Technicians*
- *Maintain & repair 1,200+ municipal vehicles*
- *Varied Fleet: Sedans, Plow Trucks, Street Sweepers, Construction Equipment & More*
- *Operate fuel site infrastructure used by 1,500+ municipal vehicles*
- *Oversee vehicle replacement planning for the fleet we manage*
- *Administer FleetHub - a Municipal Vehicle Sharing Program featuring 40 Alt-Fuel vehicles shared by 400+ city employees*

- **Light & Medium Duty Alt-Fuel Vehicles**

- *26% of our Sedans, Pick-Ups, Vans, & SUVs are Alt-Fuel Vehicles*
 - *89 Gas & Electric Hybrid Sedans, 14 Plug-In Hybrids, & 4 BEVs*
 - *31 LPG Pick-Up Trucks*
 - *24 Gas & Electric Hybrid Vans*
 - *19 Gas & Electric Hybrid SUVs*

- **Heavy Duty & Construction Alt-Fuel Vehicles**
 - *Heavy Duty & Construction Fleet runs on Bio-Diesel*
 - *Implementing new HD technology:*
 - *8 Bucket Trucks with Hybrid Aerial Drive*
 - *2 Diesel & Electric Hybrid Front End Loaders*
 - *Diesel & Electric Hybrid Trash Packer*
 - *LPG Mobile Service Truck*

- **Get Buy-in from the Top**

- *A Mayoral Executive Order requires vehicle purchases to be Alt-Fuel or most efficient vehicle in class.*
- *Boston Climate Action Plan*
- *Climate Ready Boston*

- **Take Advantage of Available Grants & Cost Saving Opportunities**

- *DEP EVIP Program*
- *DOER PONS*
- *Cooperative buying through Planning Commissions & State Contracts*
- *Bring Alt-Fuel up-fits in house. We have 3 techs certified to do LPG up-fits – including Rob Pardo who is here with us today!*
- *Dealer Incentives*

- **Make Sure Technology Will Work for Intended Application**
 - *No square pegs in round holes.*
 - *Don't be afraid to take a "Scatter Shot" approach.*
- **Keep Drivers in the Loop**
 - *Make sure drivers are aware of new technology and are trained on how to use it properly.*
- **Build Alt-Fuel Up-Fit Costs into Initial Vehicle Purchase**
 - *Include aftermarket up-fits on budgetary requests & initial vehicle purchase orders.*

- *Since we purchased our first EV in April 2014, our EVs have driven almost 300,000 electric miles.*
- *Propane pickups have used 45,000 GGEs of LPG since we began conversions in May 2015.*
- *Hybrid vans are achieving a 27% improvement in miles driven per gallon and a 22% reduction in CO2 emissions since we started up-fits in 2014.*
- *Plug-In Hybrids in our fleet are averaging 36 MPG to date.*
- *All 300,000 gallons of diesel used last fiscal year (FY'18) was Bio-Diesel.*



Hybrid Front End Loader

EVs in our Vehicle Sharing Pool Charge Up



PICTURES (CONT.)



Hybrid Passenger Van

LPG Pick-Up Truck

