CITY OF LONG BEACH GREEN FLEET PROGRAM

Jacqueline Deemak
Fleet Services Sustainability Analyst

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Agenda

- Fleet Overview
- Current Metrics, Goals, and Initiatives
- Alternative Fuels
- Technology
- Where We're Going

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Fleet Overview

- Total fleet size: approximately 2,100 units (1,650 motorized)
- Typical purchase: about 200 vehicles per year
- Fuel use: about 2 million gallons per year
- Accredited NAFA Sustainable Fleet
  - Long Beach Fleet earned the highest level, Tier IV
- #6 Best Public Fleet in North America – 2019 Leading Fleets
- Received the 2019 SCAG Sustainability Award for Clean Cities: Alternative Fuels and Infrastructure

Current Metrics and Goals

- Currently, 42% of motorized fleet is alternative fuel; 60% non-safety
  - 2020 goal: 45%
- Consistently purchasing 50% or more alternative fuel vehicles

Current Sustainability Initiatives

- Continued aggressive approach to fleet sustainability
  - One of few fleets with a dedicated green fleet analyst
  - Focus on reducing the City's fleet environmental footprint
  - Recently Green Business Certified
- Implementing new Battery Electric Vehicle Policy (AR 37-1)
  - Interdepartmental BEV Task Force
  - Infrastructure in progress
  - 70 EV sedans ordered through Climate Mayors EV Purchasing Collaborative

Alternative Fuels: Renewables

- Renewable Natural Gas
  - Liquefied Natural Gas (LNG), 61 vehicles
    - Reduced emissions, issues with equipment availability on the market
  - Compressed Natural Gas (CNG), 146 vehicles
    - Reduced emissions, cost savings, equipment readily available
- Renewable Diesel (RND), 183 vehicles
  - A "drop-in" fuel, reduces organic petroleum use, cleaner burn
    - 50-90% GHG emission benefits over traditional diesel, plus 9% less NOx
- 2019 fuel use projected to be 54% renewable, saving 8,200 tons of GHGs

Alternative Fuels: Natural Gas

- $3.9M time-fill CNG station opened May 1, 2017
  - Supports up to 100 refuse trucks and street sweepers

Alternative Fuels: Hybrid Electric

- 232 conventional hybrids and 7 plug-in hybrids (PHEV)
- Benefits: reduced maintenance, fuel use, and emissions
- Challenges: infrastructure costs and planning for plug-ins

Alternative Fuels: Hybrid Electric

- Truck and van pilot test
- 8 XL Hybrids PHEV F-150s and 11 Hybrid Vans

Alternative Fuels: Hybrid Electric

- Police pursuit vehicles
  - Ford Responder hybrid sedans – 5 units
    - Rated at 38 mpg, idling fuel use less than half of non-hybrid
  - 2020 hybrid Police Interceptor (SUV) – Up to 385 units
    - Rated at 24 mpg, idling fuel use less than half of non-hybrid

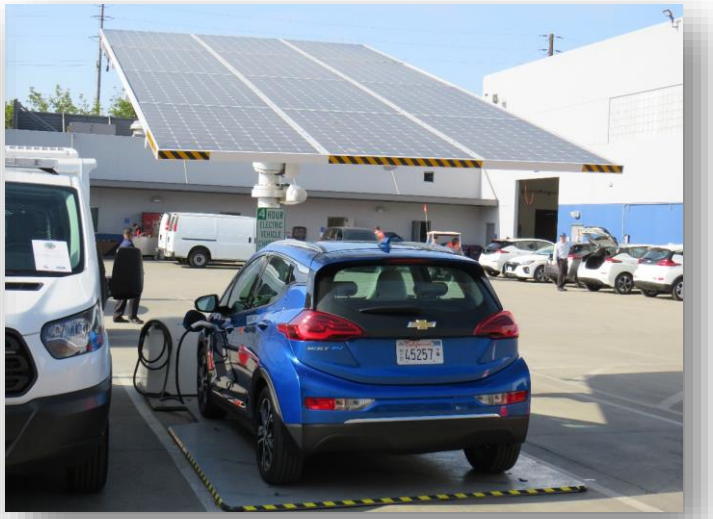
Alternative Fuels: Battery Electric

- Nissan Leaf (150 mile range)
- Chevy Bolt (238 mile range)

Alternative Fuels: Charging

- EV ARC Portable Solar Chargers
- Can charge up to 3 vehicles and provide emergency power

Alternative Fuels: EV Showcase



Alternative Fuels: Future Options

- Hydrogen Fuel Cell
- Medium and Heavy Duty Battery Electric

Technology Initiatives

- Active telematics, currently on about 600 City vehicles
  - Expanding to idling, driver behavior, utilization, MPG
  - Working on replacement with state-of-the-art system
- Fuel Focus – passive telematics as well as fuel tracking
  - Covers the remaining 1,000 vehicles
- These initiatives support a data-driven fleet
  - Expect reporting to departments starting in 2019

Where We're Going…

- Stay current with alternative fuel technology
  - Acquire greenest possible vehicles
  - Move to zero emissions with an aggressive timeline
- Make full use of telematics and vehicle data
  - City-wide policies regarding idling and driver behavior
  - Monthly reports sent to departments
- Look at the potential of ride- and car-sharing
- Autonomous vehicles and integration into City fleet

Thank you!

Questions?

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