Electric Fueling for Fleets

Suzanne Goldberg
Director of Public Policy Canada
When EV charging is mission-critical—

We empower governments and businesses to manage fueling costs and maximize savings.
# Fleet Electrification Gaining Momentum

Annual EV Unit Sales in North America and Europe

<table>
<thead>
<tr>
<th>Category</th>
<th>Today</th>
<th>2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passenger Light Duty Vehicles</td>
<td>520,000+</td>
<td>2.5 million+</td>
</tr>
<tr>
<td>Medium Duty</td>
<td>~3,500</td>
<td>38,000+</td>
</tr>
<tr>
<td>Heavy Duty:</td>
<td>Announced only</td>
<td>22,000+</td>
</tr>
<tr>
<td>Transit Buses</td>
<td>~550</td>
<td>9,600+</td>
</tr>
</tbody>
</table>

Sources: Navigant, Management Estimates
... leading to increased EV adoption

Government policy + utility programs

OEMs are investing new EV models

Fleets commitments and fuel savings...
Fleets of all sizes and types are already demonstrating cost savings with electrification

Cost savings from...

- Fuel & Maintenance
- Energy Management & Integration
Spotlight: Medium and Heavy Duty Fleet

Total Cost of Ownership - 2019

- Drayage: 200-300 miles/day, B-E: 2-3 years
- Regional Haul: Average 150 miles/day, B-E: 3-4 years

- $0.18/mile, ~50% (Break Even: 5-10 years)
- $0.05/mile, ~50%
- $0.24/mile, ~60%
- $0.10/mile, ~50%

Sources: NREL, NACFE, Management Estimates
## Spotlight: Light Duty Fleet

### Analysis of New York City’s LDV fleet

Electric vehicles are saving New York big money on maintenance costs (2018)

<table>
<thead>
<tr>
<th></th>
<th>Leaf (electric)</th>
<th>Prius (hybrid)</th>
<th>Fusion (gas)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bolt (all-electric)</strong></td>
<td>$205</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Leaf (all-electric)</strong></td>
<td>344</td>
<td></td>
<td></td>
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<tr>
<td><strong>Focus (all-electric)</strong></td>
<td>386</td>
<td></td>
<td></td>
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<tr>
<td><strong>Fusion (hybrid plug-in)</strong></td>
<td>497</td>
<td></td>
<td></td>
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<tr>
<td><strong>Prius (hybrid plug-in)</strong></td>
<td>893</td>
<td></td>
<td></td>
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<tr>
<td><strong>Taurus (gas)</strong></td>
<td>923</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Volt (hybrid plug-in)</strong></td>
<td>1,210</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Fusion (hybrid)</strong></td>
<td>1,311</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Fusion (gas)</strong></td>
<td>1,621</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Focus (gas)</strong></td>
<td>1,805</td>
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<td></td>
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</tbody>
</table>

### Source

New York City says electric cars are now the cheapest option for its fleet. By Michael J. Coren. March 18, 2019


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Alameda County Gets Smart About Growing Its EV Fleet

**CUSTOMER PROFILE**

- **Organization:** Alameda County
- **Location:** Alameda, California
- **Industry:** Municipality
- **Fleet Types:** Primarily light-duty
- **Fleet Size:** 800 light duty (out of 1200), 10% of which are currently electric
- **County website:** acgov.org

**Solution**

- Started with 40 stations, expanded to 125 stations, with plans to grow to 160 over a dozen locations
- Power management
- Public, fleet and mixed-use charging for county employees and visitors

**Results**

- Increased charging capacity without infrastructure upgrades
- Tripled the number of charging spots without adding additional capacity
- Power management increased EV savings from 35% to 54% compared to gas vehicles, saving thousands of dollars annually
- 1,500+ charging sessions per month

“Having internet-connected charging stations has been instrumental for us to track energy consumption and utilization for grant compliance and internal fleet metrics.”

— Phillip Kobernick, Logistics Services Manager, Alameda County
Policies to support fleet electrification

- EV sales requirements
- Fuel/GHG standards
- Clean fuel standards
- Utility programs and rates
- Government fleet electrification
- Incentives for vehicles and infrastructure

Creates market growth and employment in EV and EVSE sector
+ Saves businesses and governments money
+ Benefits local energy producers
Vehicle Mandates – Not just consumer focused

+ Light-duty mandates (e.g. Quebec, BC, California)
+ Fleet focused mandates, e.g.
  • California: transit (also looking at drayage, urban, airport, TNCs)
  • London: ride hailing, taxis
Clean Fuels policy

BEV Fuel Cost Saving Opportunities

- Supports market for clean fuel infrastructure and end-use technologies
- Provides a long-term investment signal for electrification
- Credit sales support investments in fleet electrification
- Complimentary to other policies

Source: CARB ZEV workshop: https://www.arb.ca.gov/msprog/zev_fleet_workshop_presentation_083018.pdf
Electricity as a fuel

- Reduces fueling and maintenance costs
- Lowers total cost of ownership
- Delivers additional savings with managed charging

Electrification policy

- Grows employment and expertise in Canada’s EV + EVSE market
- Increases production of clean local electricity
Thank You!

Suzanne.Goldberg@chargepoint.com

Learn more at chargepoint.com/businesses/fleet