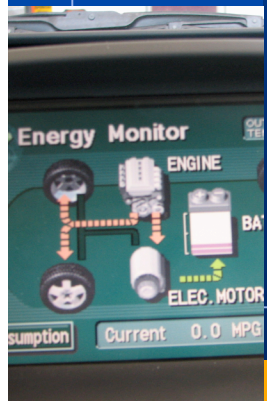


Orange County Transportation Authority's Fleet and Hybrid Vehicle Options



Board of Directors Meeting
July 9, 2007

Agenda

- Vehicle Fleet Summary
- Current Hybrid Applications
- Future Environmental Direction
- Why Hybrid?
- Proposed Next Steps

Vehicle Fleet Summary

- Revenue Fleet
 - 930 Fixed Route and ACCESS Vehicles
 - Two Hybrid Electric Diesel
 - Two Hybrid Electric Gasoline
- Automobile Fleet
 - 99 Hybrid Electric Gasoline

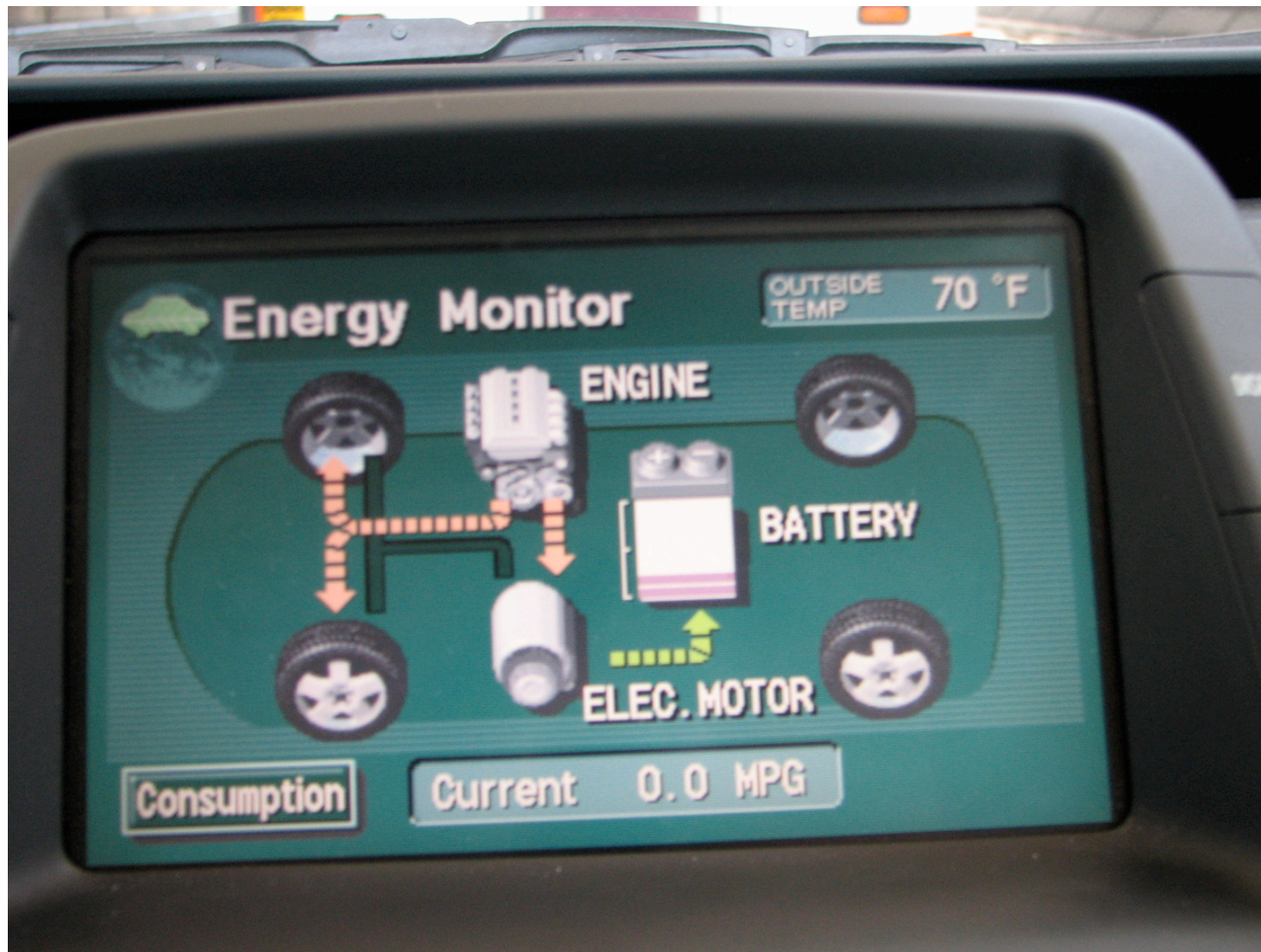
Current Hybrid Applications

- Two New Flyer/Allison Diesel Hybrids
 - Third Generation Technology - Five Years
- Two New Flyer/Integrated Systems for Energy Gasoline Hybrids
 - In-Service for One Year
- 99 Toyota Prius Gasoline Hybrids
 - Four Year Lease, One Year Remaining

Toyota Hybrid Car



Toyota Dashboard Display



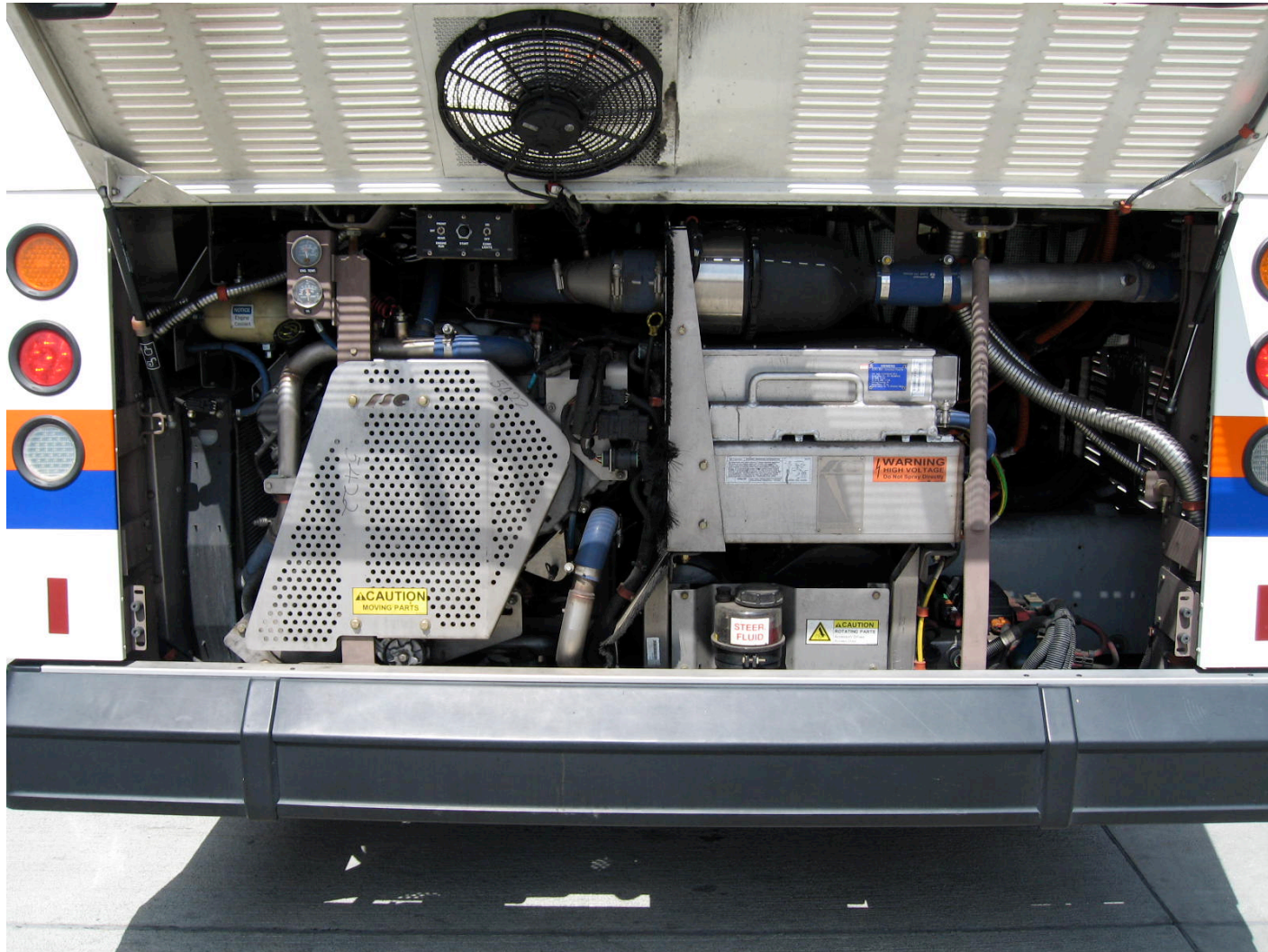
Hybrid Bus



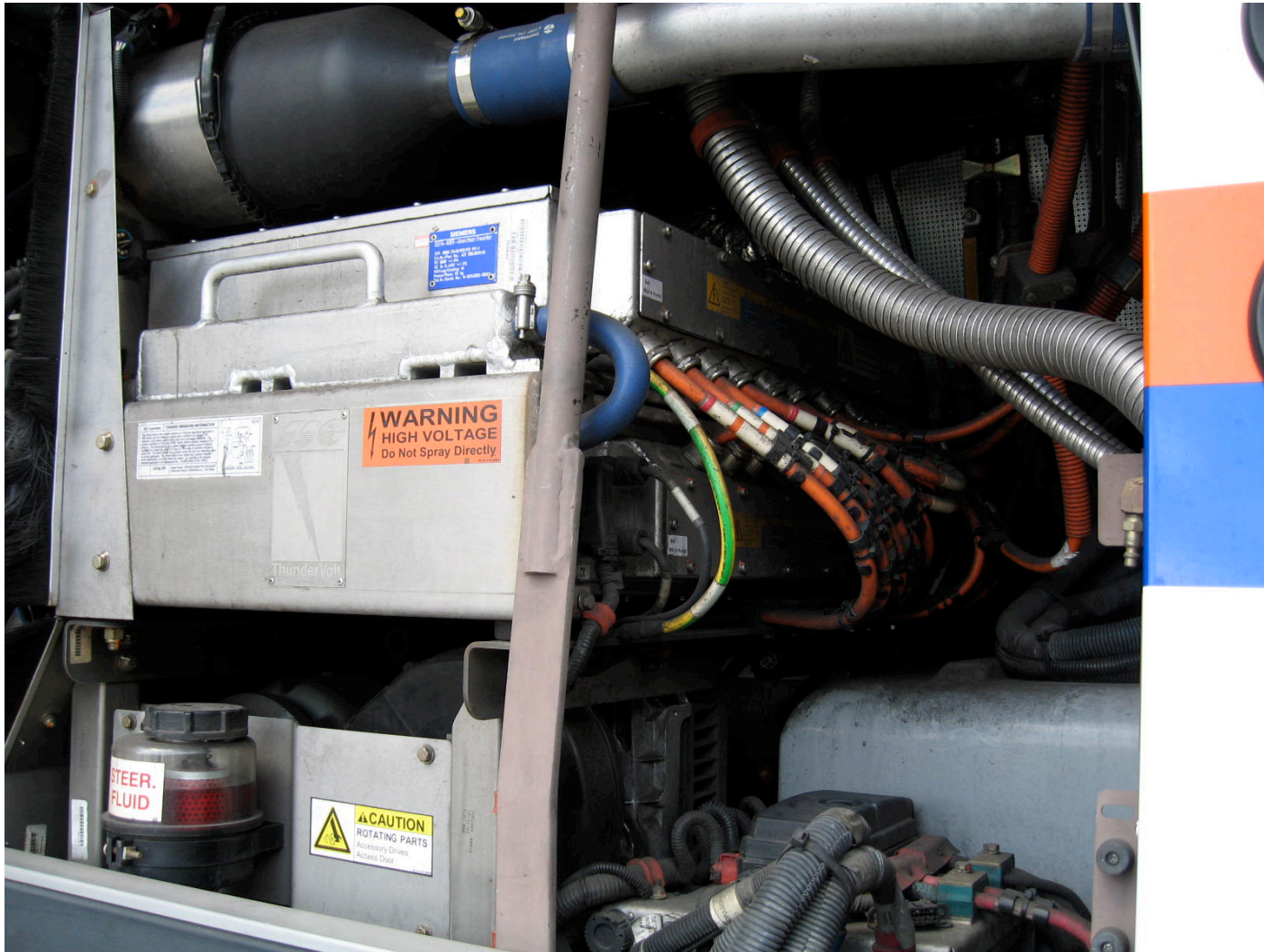
Hybrid or CNG Roof Compartment



Hybrid Engine / Generator



Hybrid Electronic Controller



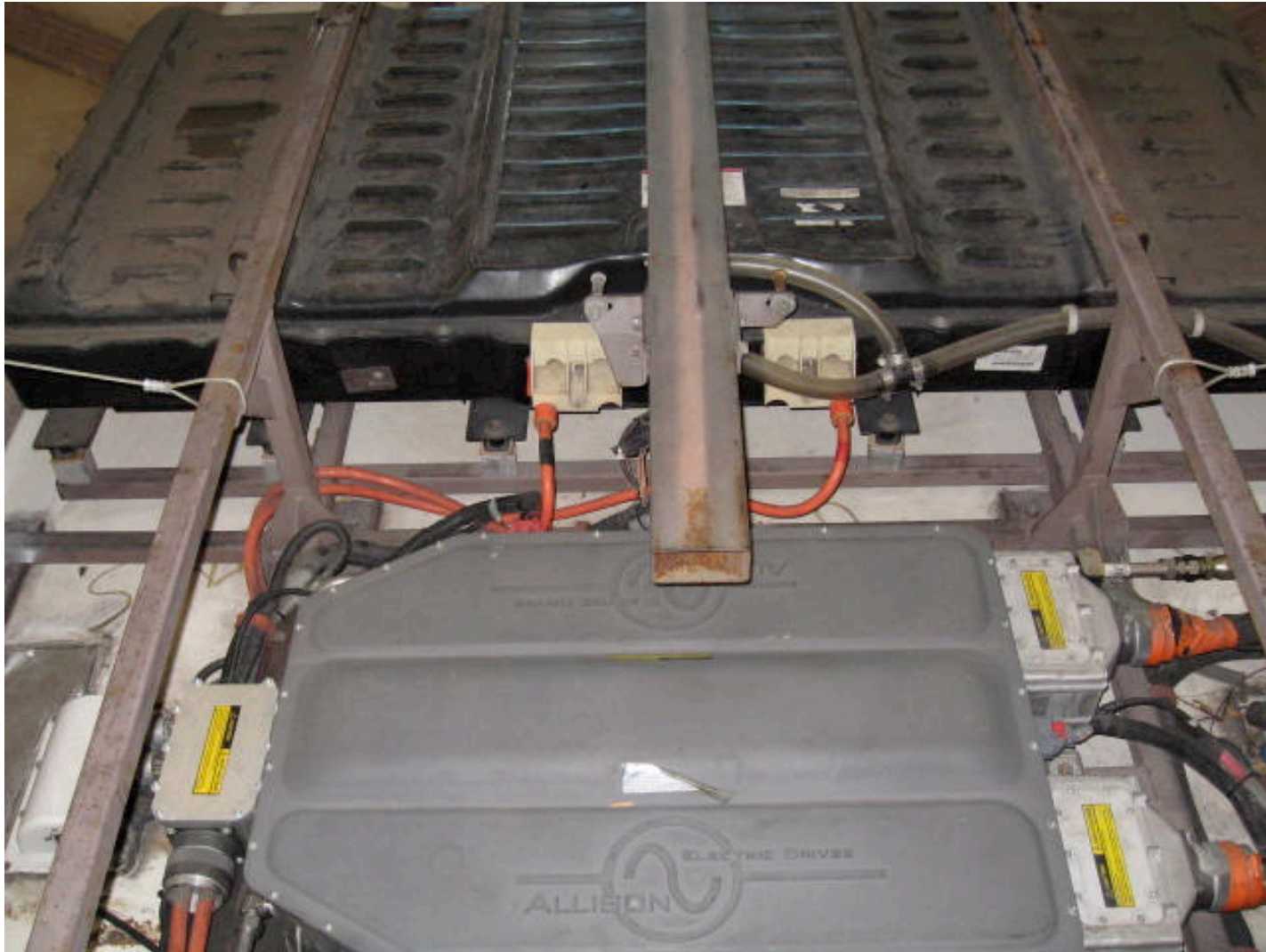
Hybrid Electric Drive Motors



Hybrid Energy/Battery Storage



Hybrid Electronic Controller



CNG Tank Configuration



Environmental Direction

- Reduce Emissions
- Reduce Dependency on Petroleum Fuels
- Improve Fuel/Energy Efficiency
- Goal - Zero Emission Vehicle (ZEV),
Electric and Hydrogen Fuel Cells

Why Hybrid?

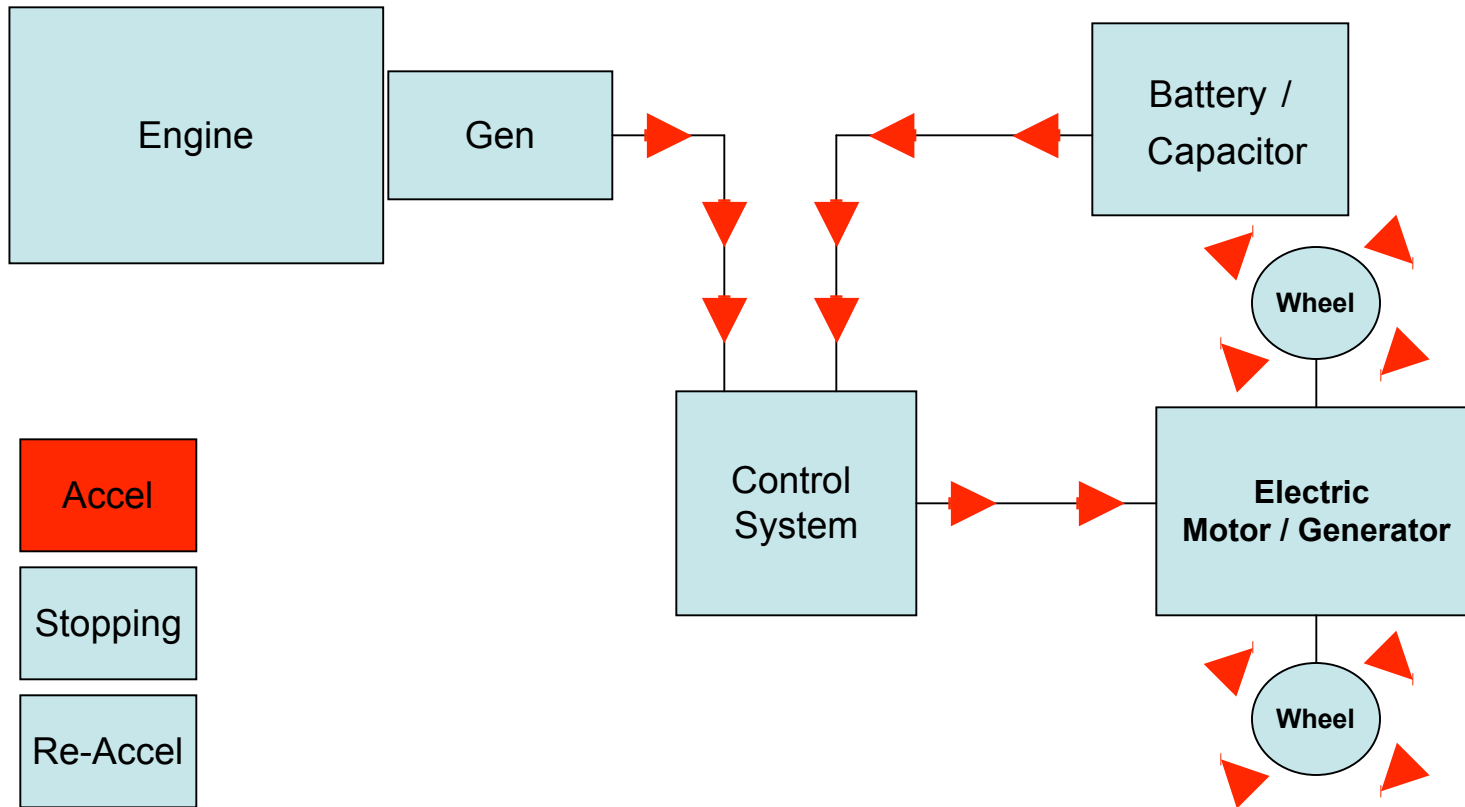
- Emission Reduction
- Improved Fuel Economy
- Neutral Fuel Flexibility
- Electric Drive and Energy Storage are Logical ZEV Enabling Steps
- Complements OCTA's Duty Cycle



Energy



Energy



Energy

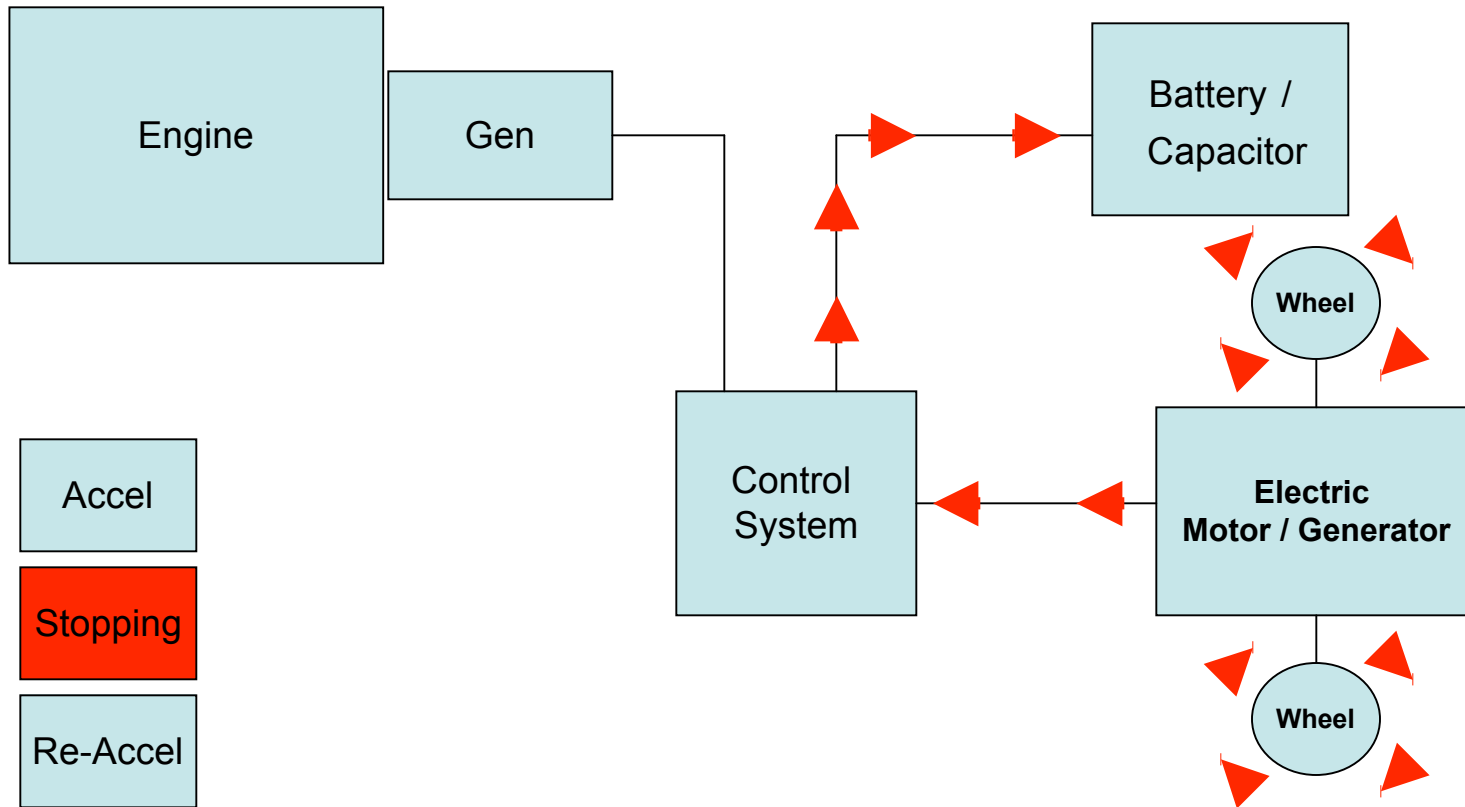




Energy



Energy



Accel

Stopping

Re-Accel

Energy

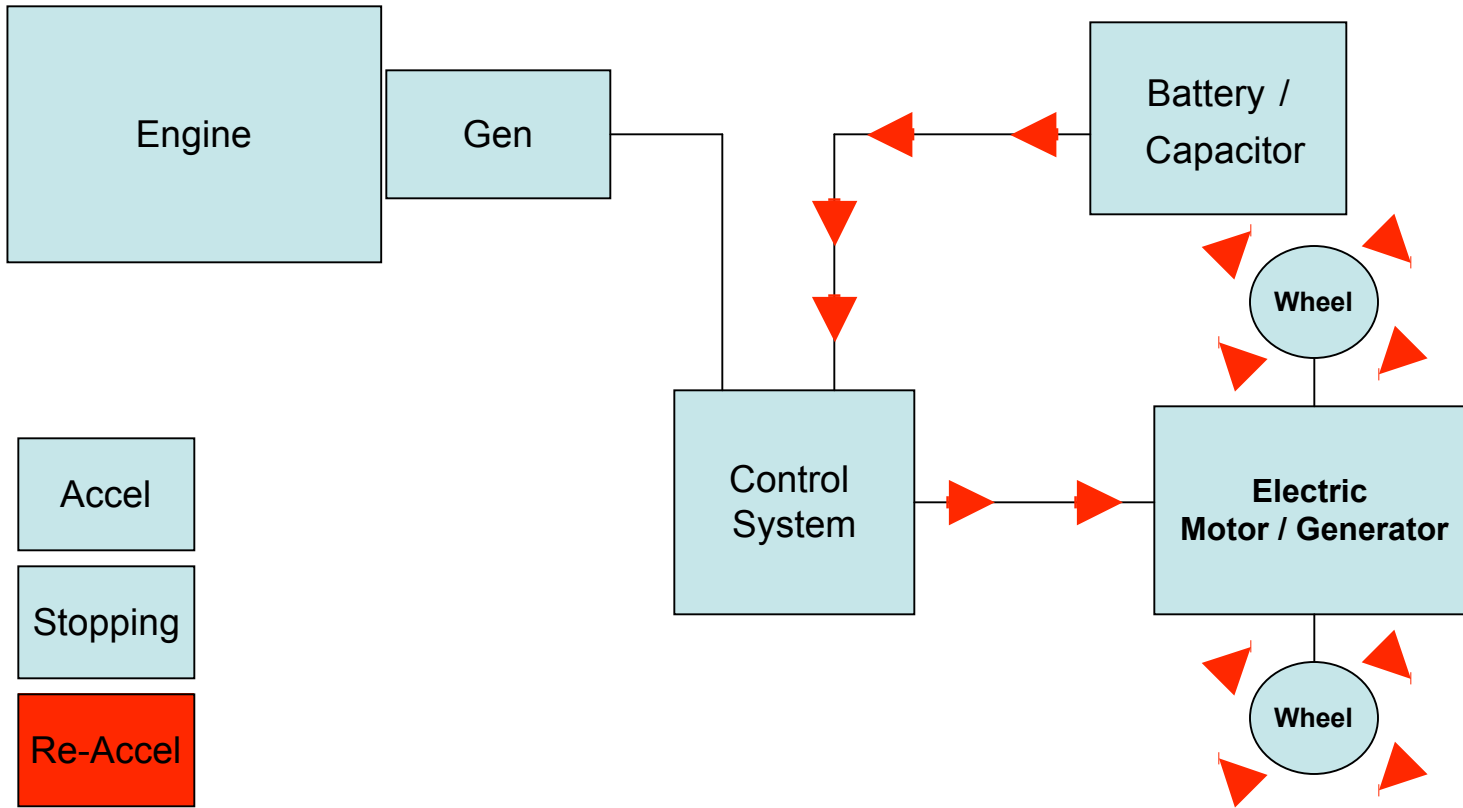




Energy



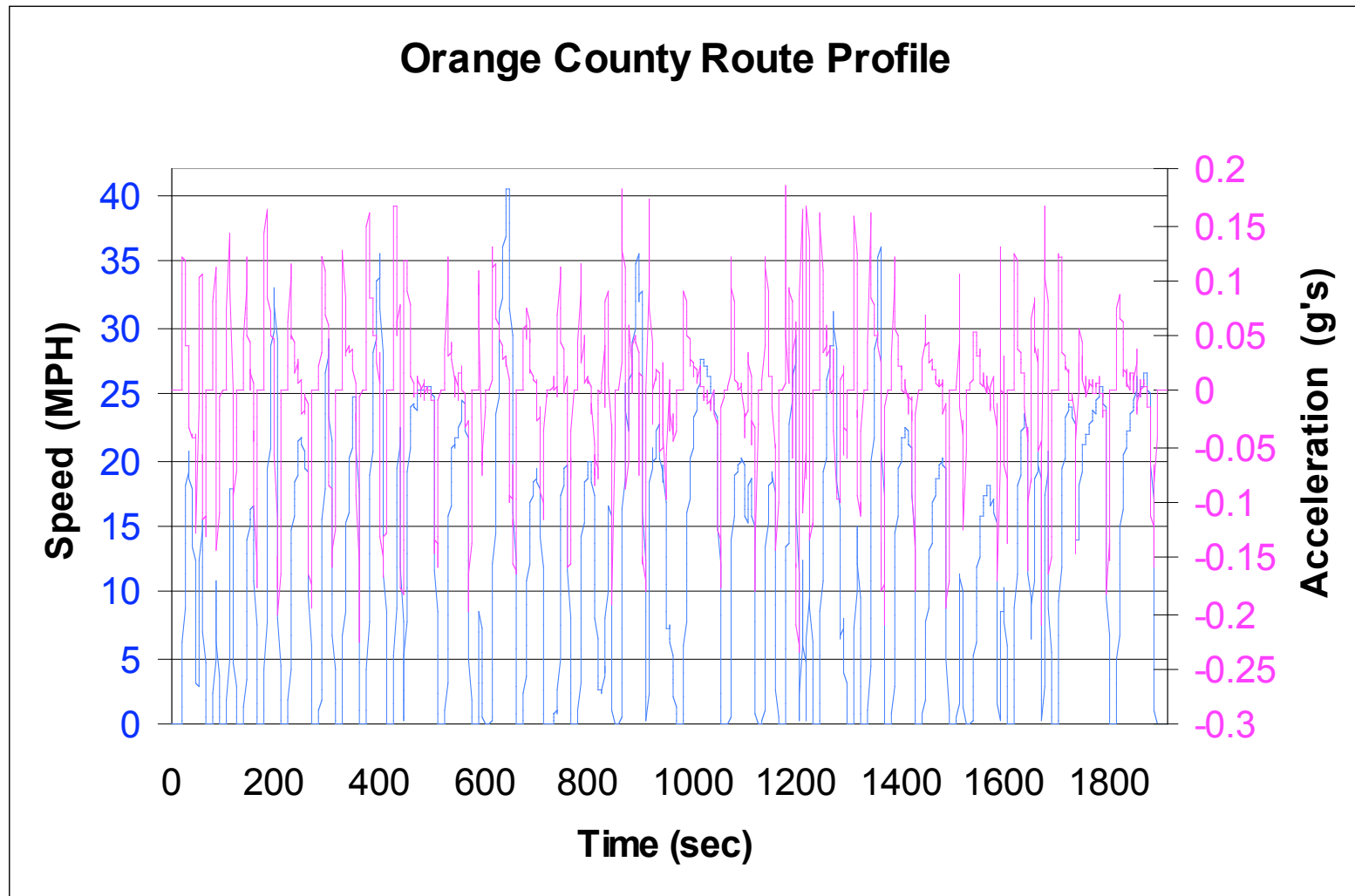
Energy



Energy

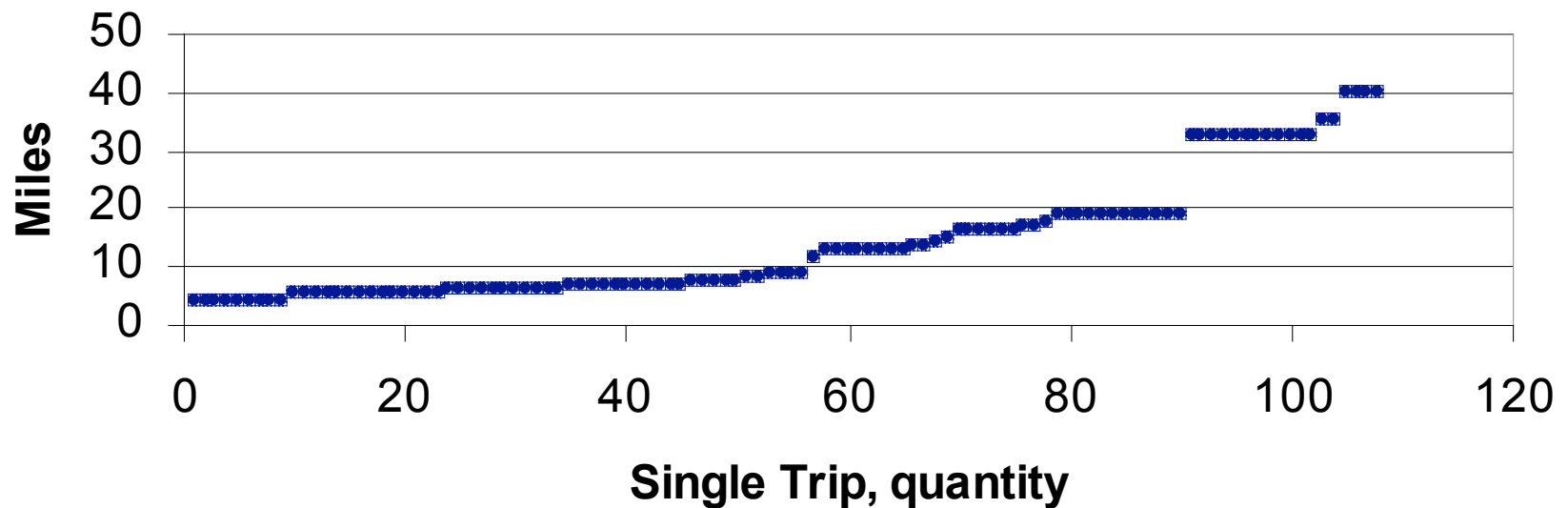


Fixed Route Bus Duty Cycle



Trip Profile for Operator Exchange Use

Santa Ana Single Trip Scatter Plot, miles



Potential Next Steps

- Explore Hybrid with New Flyer CNG Order
- Explore Current Auto Lease/Bid Options
- Solicit Assistance: Air Quality Management District, Air Resource Board, California Energy Commission and Other Agencies
- Explore Alternatives for Fuel and Energy, such as, Bio, Solar, Hydrogen, etc.
- Return to Transit Planning and Operations Committee and Board with Update