



# Sustainable Transportation Coalition of Hawai'i

A U.S. DEPARTMENT OF ENERGY CLEAN CITIES COALITION

## Hawaii Green Car Talk

a conversation about alternative fuels and fleets

#### Jun 18: 9-10a HST

### **Lifecycle Costs, Telematics & Procurement**

Philip Saunders- City of Seattle Green Fleet Program Manager Learn about the resources and tools that are helping public fleet managers across the country make smart, green procurement decisions.

### Aug 4: 9-10a HST



Kelly Reagan- Fleet Manager, City of Columbus
How have coordination, centralization, and data helped the City of
Columbus tackle their transition to alternative fuels and
technologies?

#### Sept 16: 9-10a HST

#### **AFLEET: Calculating Total Cost of Ownership**

Lauren Reichelt- Coordinator, Sustainable Transportation Coalition of Hawaii Learn the assumptions behind Argonne National Laboratory's AFLEET tool and how it can help you compare total cost of ownership for vehicles during procurement.

#### Nov 5: 9-10a HST

### **Experiences from Hawaii**

Ben Sullivan- County of Kauai

Kevin Cooney- State of Hawaii DLNR/DOFAW

EV charger installation can seem daunting at first. Learn about the process and hear tips to make installation easier from firsthand experience on Kauai. Then hear updates from DLNR Maui DOFAW on their exciting biodiesel truck pilot and learn what factors are important when considering biodiesel.

This webinar series is open to Hawaii's public fleet managers and staff.

For questions, contact lauren@blueplanetfoundation.org









Click to Register







## Welcome To AFLEET

The Department of Energy's Technology Integration
Program has enlisted the expertise of Argonne to
develop a tool to examine both the environmental and
economic costs and benefits of alternative fuel and
advanced vehicles (AFVs). Argonne developed the
Alternative Fuel Life-Cycle Environmental and
Economic Transportation (AFLEET) Tool to help
stakeholders estimate petroleum use, greenhouse
gas (GHG) emissions, air pollutant emissions, and
cost of ownership of light-duty and heavy-duty
vehicles.



## AFLEET Tool (xls)

The AFLEET spreadsheet provides detailed energy, emission, and cost data for light- and heavy-duty AFVs. It has the following 4 calculators depending on the users goals:

- · Simple Payback
- Total Cost of Ownership
- · Idle Reduction
- Fleet Footprint



### **AFLEET Online**

AFLEET Online replicates the spreadsheet's Simple Payback Calculator with a user-friendly interface and analyzes the following metrics:

- · Petroleum use
- Greenhouse gas emissions
- Air pollutant emissions
- Simple payback



### **HDVEC**

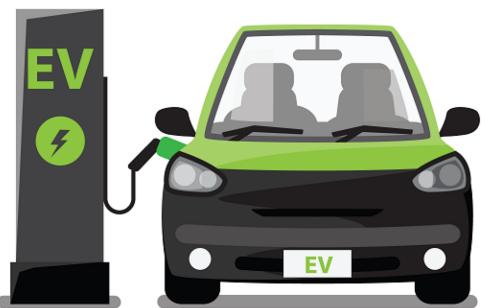
The Heavy Duty Vehicle Emissions Calculator (HDVEC) is an AFLEETbased online tool that compares NOx, PM, GHGs and funding costeffectiveness of environmental mitigation projects for the following fuel types:

- Diesel
- Electric
- Natural Gas
- Propane

# Fuels Available for Comparison



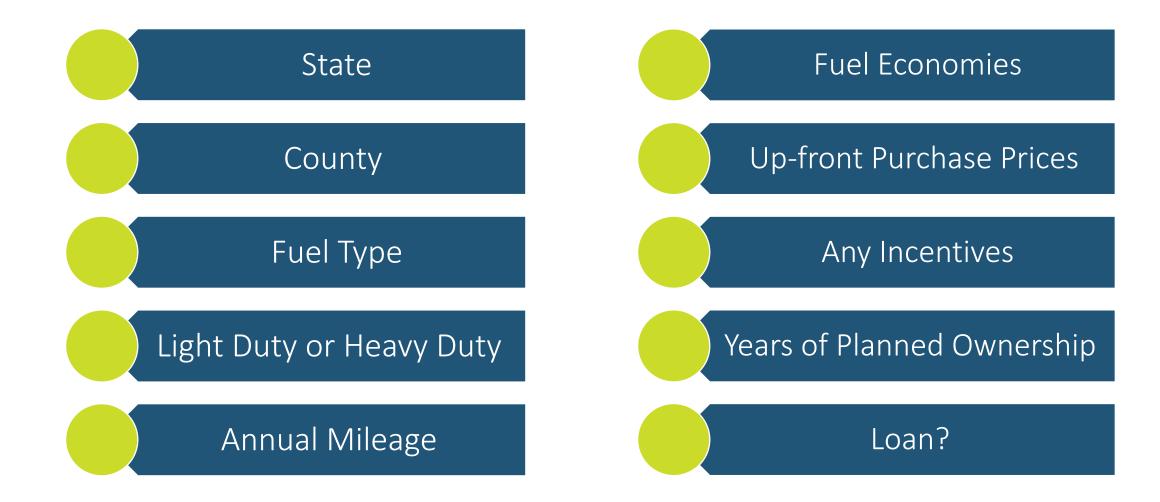




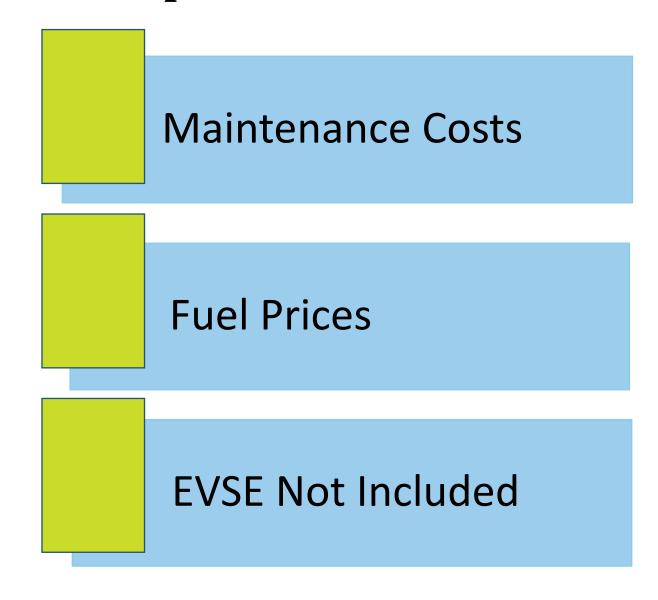




## Inputs



# Flexible Assumptions



# Built-in Assumptions

Depreciation

Insurance

License and Registration

Mix of gas versus electric usage for PHEVs



2020 Chevrolet Malibu

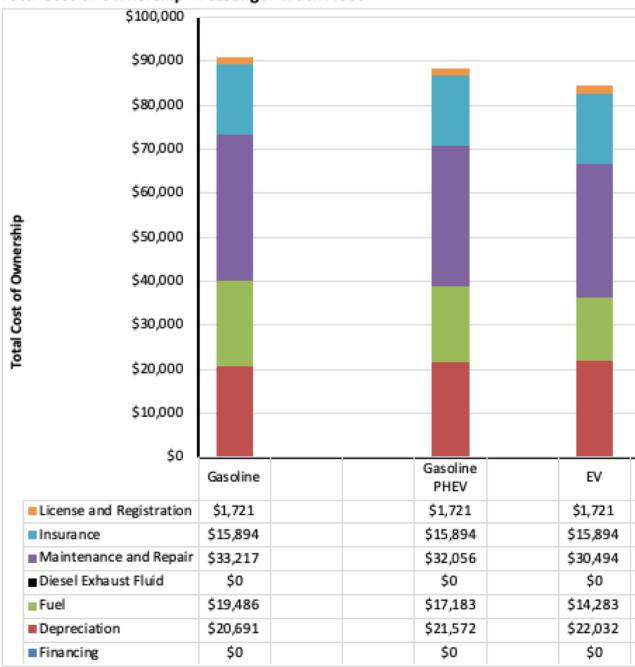


2020 Prius Prime



2020 Nissan Leaf

## Total Cost of Ownership - Passenger Truck Fleet



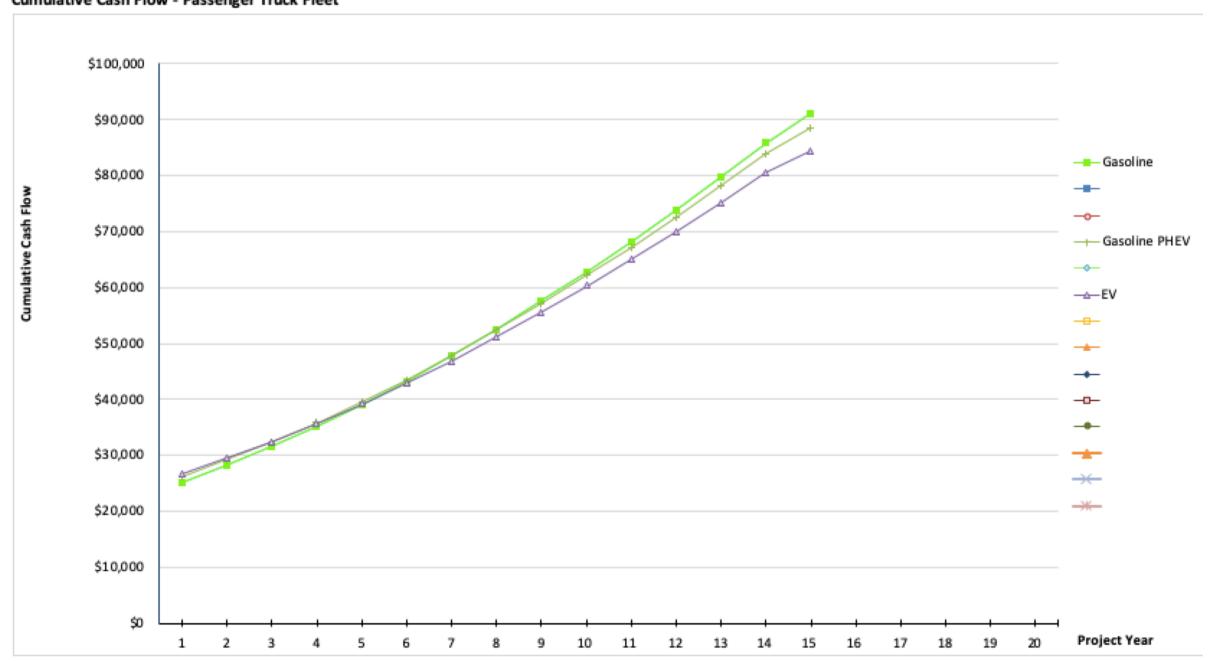
## **Total Lifecycle Costs**

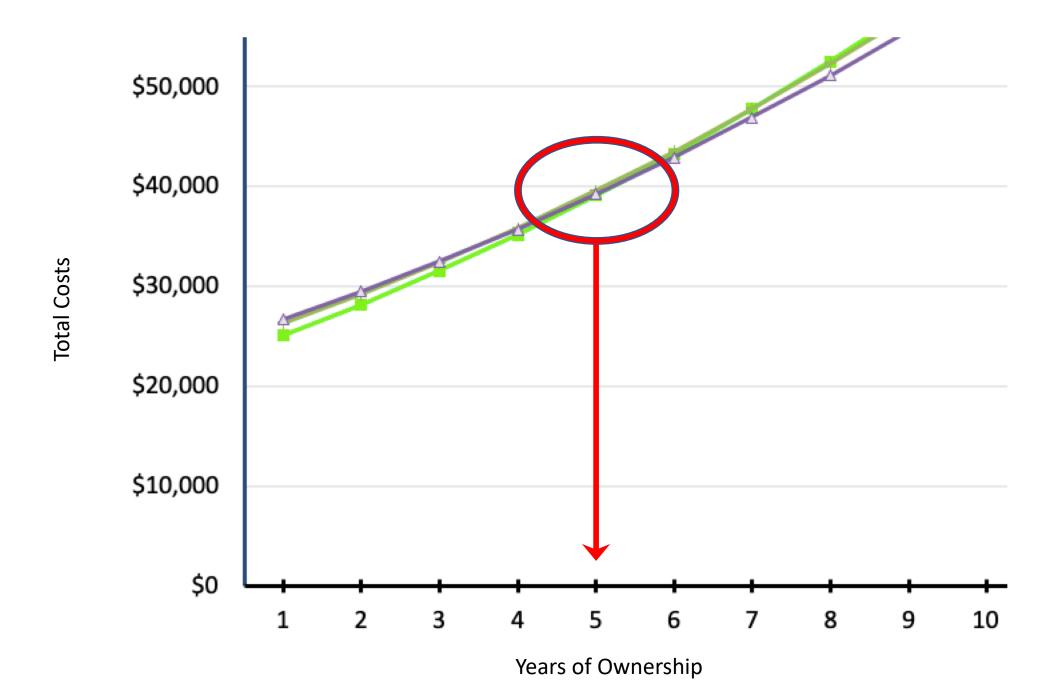
\$91,009 - Chevrolet Malibu (ICE)

**\$88,426** - Prius Prime (PHEV)

**\$84,424** -Nissan Leaf (EV)

## Cumulative Cash Flow - Passenger Truck Fleet







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Home » Fleet Tools

## **FLEET TOOLS**

http://climate.hawaii.gov/fleet-tools/

Trying to make smart vehicle purchase decisions? The Sustainable Transportation Coalition of Hawaii (STCH) uses Argonne National Laboratory's AFLEET tool to create a total cost of ownership comparison for gas- or diesel-powered vehicles, electric vehicles (EV), and plug-in hybrid (PHEV) model.