



WEST COAST  
**ELECTRIC  
FLEETS**

**Peer-to-Peer Webinars**  
**Webinar 3**  
**September 24, 2015**

# Webinar Logistics

- All attendees in “mute” mode until discussion.
- Use the Webinar controls to ask questions in dialog box.
- Please remember: enter your **Audio PIN** (shown on your screen) so you can participate when we get to discussion
  - We cannot “open” your line to talk unless you enter PIN



WEST COAST  
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# Agenda

- Webinar Logistics
- Overview: WCEF & P2P Webinars
- Presentation 1: Amy Lopez,  
Securing America's Energy Future
- Presentation 2: David Rosenberg,  
City of Indianapolis
- Q&A and Discussion

## West Coast Electric Fleets – Implements the Zero Emission Vehicle (ZEV) commitment in the Pacific Coast Action Plan on Climate and Energy

- 2) **Take actions to expand the use of zero-emission vehicles, aiming for 10 percent of new vehicle purchases in public and private fleets by 2016.**

The Pacific Coast already has the highest penetration of electric cars in North America. The governments of California, British Columbia, Oregon and Washington will work together towards this ambitious new target by supporting public and private fleet managers to shift their procurement investments to catalyze toward electric car purchases and by continuing to invest in necessary infrastructure to enable low-carbon electric transportation.





## West Coast Electric Fleets Pledge

Become a fleet partner by taking the West Coast Electric Fleets pledge. The pledge is flexible, recognizing the diverse needs, opportunities, and timeframes of public and private fleets. Whether you are considering battery electric vehicles, plug-in hybrids, or hydrogen fuel cell vehicles, West Coast Electric Fleets can help you determine what vehicles are right for you.

**LEARN MORE ABOUT  
THE FLEET PLEDGE**

[westcoastelectricfleets.com](http://westcoastelectricfleets.com)

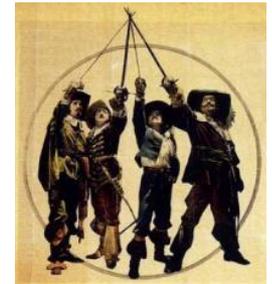
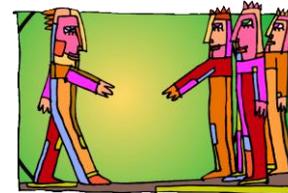


26 Partner  
Fleets so far



## Partner benefits include:

- Access an online **Toolkit** that can help you assess how ZEVs can best meet your operational needs and save you money
- Receive **technical assistance** from Clean Cities Coalitions in California, Oregon, and Washington and the Fraser Basin Council in British Columbia that will help you understand ZEV procurement opportunities
- Attend **events** where you can test drive electric vehicles and learn more about incorporating them into your fleet
- Be **recognized** for your leadership on the West Coast Electric Fleets website, through press releases, and at West Coast Electric Fleets events.
- Seize opportunities to be profiled in **case studies** and contribute to lessons learned
- Access a **peer-to-peer network** of fleet managers and owners to share challenges, needs, lessons, and resources



## Peer-to-Peer Webinars

- Share challenges, needs, lessons, and resources
- Answer questions about the benefits of ZEVs
- Discuss solutions to common problems
- Support the increase of adoption of ZEVs among fleets
- View recordings of past webinars:

[http://www.westcoastelectricfleets.com/portfolio\\_category/webinars](http://www.westcoastelectricfleets.com/portfolio_category/webinars)

I am just getting started with ZEVs.

I'm ready to integrate ZEVs into my fleet.

I'm interested in charging/refueling infrastructure.

I want information specific to my location.

Navigator

Select Tags for the Resource

Select Year for the Resource

Narrow Your Search

Tags

Year

Search for resource containing text...

Search

Your Search Results:

Sort By Name



All-Electric Vehicles and DC Fast Charging Locations

Featured, Maps

This maps shows the number of all-electric vehicles and DC fast charging stations as of December 2014. For EVs, click on a state to see a breakdown of EVs and total light-duty vehicles. For DC fast ch...

Alternative Fuel and Advanced Vehicle Search

Apps & Tools

This tool helps identify and compare alternative fuel vehicles, engines and hybrid systems by duty cycle and engine type.

Alternative Fuel Life-Cycle Environmental and Economic Transportation (AFLEET) Tool

Apps & Tools

This tool's simple spreadsheet inputs allows fleet managers to estimate petroleum use, greenhouse gas emissions, air pollutant emissions, and cost of ownership of light-duty and heavy-duty vehicles....



Pacific Coast  
COLLABORATIVE

Leadership now  
for a sustainable tomorrow

- ❑ Many different resources, documents, and tools available
- ❑ Resource library navigator (left)
- ❑ Directs fleet managers to most relevant resources
- ❑ Step-by-step process
- ❑ Resources include a Vehicle Cost Calculator, DC Fast Chargers Map, and a Vehicle Buyers Guide



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# The Electrification Coalition:

Energy Secure Cities Coalition



Electrification  
Coalition

# The Electrification Coalition

Who we are.

The Electrification Coalition is a nonpartisan, not-for-profit group of business leaders committed to promoting policies and actions that facilitate the deployment of electric vehicles on a mass scale in order to combat the economic, environmental, and national security dangers caused by our nation's dependence on oil.



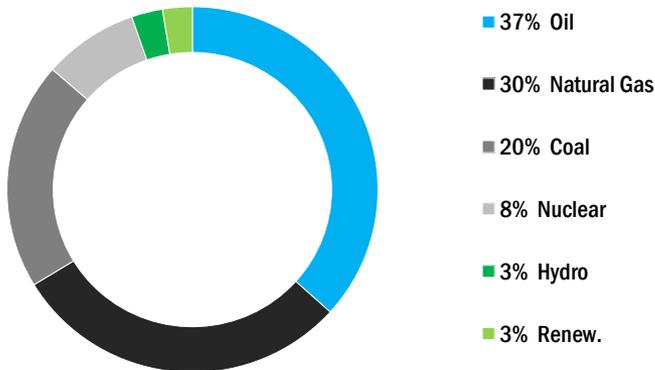
Electrification  
Coalition

# Oil Dependence by the Numbers

U.S. oil dependence is a function of the significant role of petroleum fuels in the economy—transportation in particular.

- › Oil is by far the most significant energy input to the U.S. economy, alone accounting for nearly 40 percent of U.S. primary energy demand.

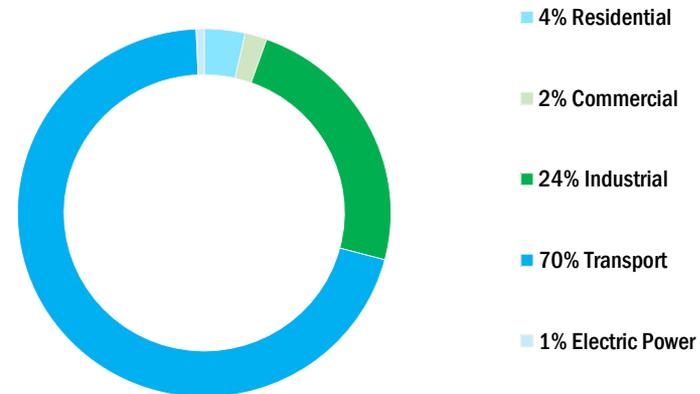
U.S. PRIMARY ENERGY CONSUMPTION BY FUEL



Source: DOE, EIA

- › Approximately 70 percent of U.S. oil consumption occurs in the transportation sector, where petroleum fuels account for 92 percent of energy consumed.

U.S. OIL DEMAND BY SECTOR (2014)



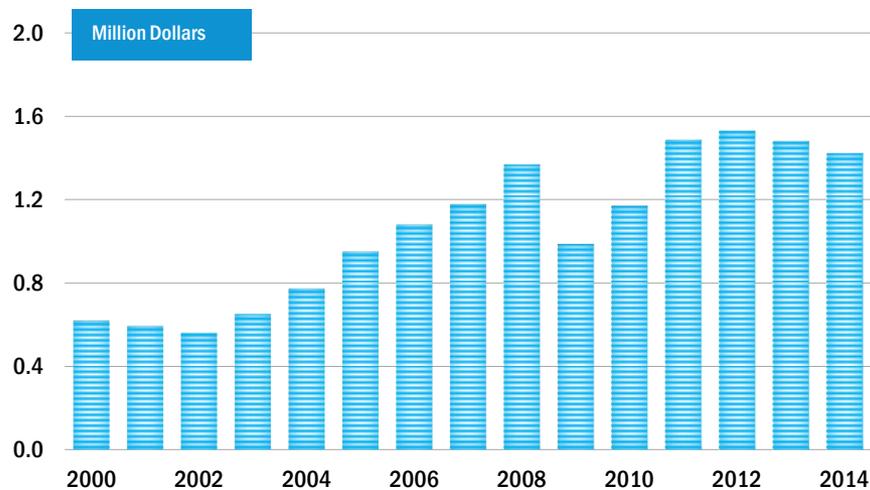
Source: DOE, EIA

# The Challenge: Energy Secure Cities

Municipal governments have a direct incentive to take a leadership role.

- › Though fuel is often a small percentage of a city's total budget, spending is significant, ranging from several hundred thousand dollars for a small city to millions for larger cities.

**ESTIMATED FUEL SPEND: FLEET OF 1,000 PASSENGER VEHICLES WITH ANNUAL MILEAGE OF 7,500**



Source: EC Analysis

- › Quality of life and relative competitiveness of our cities:
  - By 2050, 70 percent of people will live in cities.
  - Extended commute times, high levels of pollution caused by tailpipe emissions, and public sector budgets strained by unpredictable gasoline and diesel expenditures contribute to less attractive places for workers to live and businesses to invest.
  - In order to compete regionally and globally, cities are increasingly pursuing policies and programs that accelerate the deployment of advanced technology vehicles powered by non-petroleum fuels.

# Energy Secure Cities Coalition

Vehicles powered by non-petroleum fuels play a significant role in making cities more sustainable, resilient, and energy secure.

- › Member cities will transition municipal fleets from vehicles powered exclusively by gasoline to ones powered by other fuels in every vehicle category for which a suitable electric vehicle (EV) or alternative fuel vehicle (AFV) is commercially available.
- › Mayors and cities are capable of catalyzing a national EV transition by demonstrating through action that EVs are here today, cost-effective, reliable, and fun to drive.
- › Transform the political conversation surrounding AFV – underscoring the often overlooked role in economic development and national security

# Energy Secure Cities Coalition

Measureable goals.

## › Year One

- › Commitments from 10 cities to join the coalition.
- › Commitment to transition 1000 AFV and EVs into fleets.

## › Year Two

- › Add a minimum of 7 additional ESCC cities.
- › Commitment to transition a minimum of an additional 1000 AFV and EVs.
- › Expand coalition partners to include additional financing options, vehicles and support

## › Year Three

- › Commitments from a minimum of 25 cities to phase out petroleum vehicles by 2025, placing 7,500 EVs in service.
- › Quarterly report card based on fleet data, published on ESCC website and shared publically
- › Expanded Roadmap document to include additional city and corporate case studies.

## › Long Term

- › 50,000 EVs will be deployed, displacing more than 500,000 barrels of oil annually.

# Energy Secure Cities Coalition

A resource for cities.

## Workshop

- Collaborative learning process with initial half-day workshop to facilitate the exchange of knowledge among ESCC cities, an Indianapolis representative, project partners and the local utility.

## Assessment

- Assess current fleet to determine feasibility.
- Create transition plan and timetable with recommendations for infrastructure, including a finance model for acquisition, operation and service.

## Financing

- Provide access to a financing model for acquisition, operation and service to amortize incremental capital costs as an operating expense and providing access to state or federal credits.

## Roadmap

- Action plan for transitioning the fleet a with step-by-step process that includes a case study, a scalable learning model, and incorporates issues like acquisition, financing, in-service, and operation optimization.

## Education

- Operator education to build cooperation and program support.
- Fleet management tools to monitor vehicle utilization, maximize efficiency, enable fast payback, deliver a better driving experience.
- Reporting template and ability measure and share results with other cities.

# Energy Secure Cities Coalition

The next steps – going public.

## Announcement

- Mayor Ballard on CNBC, Morning Joe.
- Press Event during USCOM: DC National Press Club event with 40 energy and transportation reporters.

## TV and Radio at Launch

- National cable news outlets with business-focused programming.
- Interviews with Mayors in regions.
- Radio tour for key local markets.

## Digital and Social

- Dedicated ESCC website, Facebook, Twitter.
- At launch: Target national reporters to drive press conference attendance.
- At launch: Target online publications and reporters in target markets.

## Local Media Support

- “Toolkits” for mayoral staff to easily disseminate streamlined messaging to local media about their city’s participation.
- Summary of national launch plans, template local media advisory, op-ed, key messages, talking points, and suggested social media content.

## Thought Leadership Content

- Op-ed approach and pitched to national publications and provided for local inclusion.
- Establish ESCC Mayors as Energy Security thought leaders via SAFE’s energy security hub – The Fuse.

# The Electrification Coalition

Revolutionizing Transportation and Achieving Energy Security

## Online:

[www.electrificationcoalition.org](http://www.electrificationcoalition.org)

[www.driveelectricnoco.org](http://www.driveelectricnoco.org)

## Download the Electrification Roadmap:

[www.electrificationcoalition.org/policy](http://www.electrificationcoalition.org/policy)

## Contact:

Amy Lopez 585.233.3683

[Amy@electrificationcoalition.org](mailto:Amy@electrificationcoalition.org)



Electrification  
Coalition

1111 19TH STREET NW  
SUITE 406  
WASHINGTON, DC 20036

TEL: 202-461-2360  
FAX: 202-318-8934  
[ELECTRIFICATIONCOALITION.ORG](http://ELECTRIFICATIONCOALITION.ORG)

# BlueIndy Car Share

Indianapolis  
Mayor Gregory A. Ballard



- Largest EV car sharing service in America
- French multinational Bolloré Group
- Partnered with ESN for project planning, management, and implementation
- \$51 million public private partnership
- Point-to-point car sharing city-wide

ESN\_PPT Page.jpg

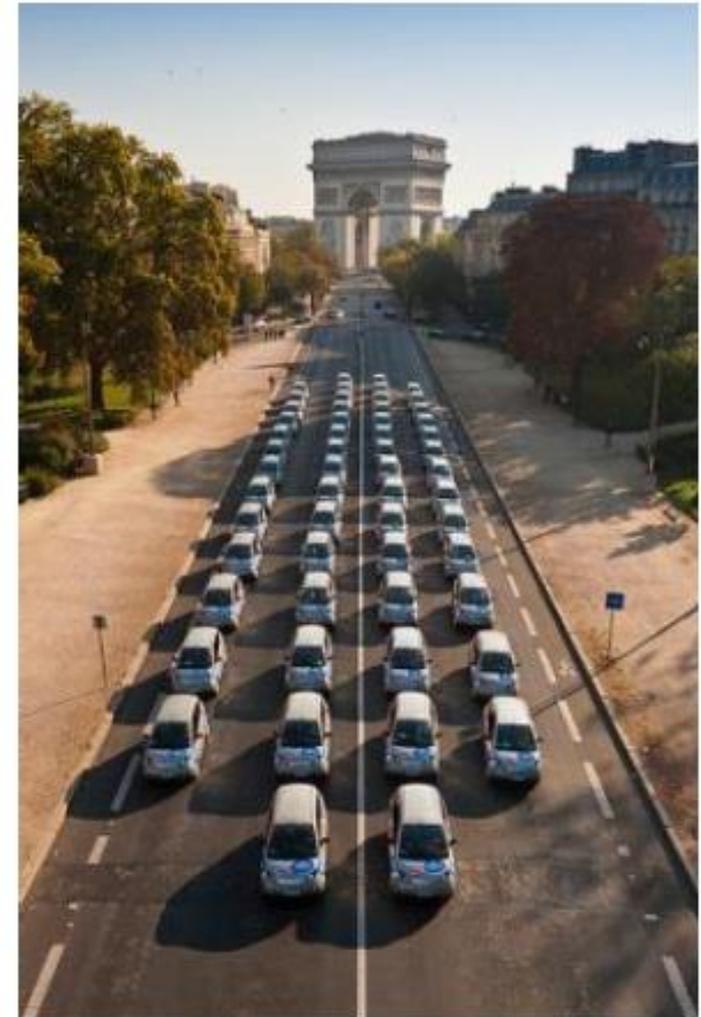


# BlueIndy Car Share

Indianapolis  
Mayor Gregory A. Ballard



- Based on Bolloré's Autolib service in Paris
- Largest, most successful electric car sharing service in the world
  - 250,000 subscribers
  - 10 million trips since its launch in 2011
  - 100,000+ rentals per week
- Bolloré has expanded their service to Bordeaux and Lyon and is preparing to launch in London

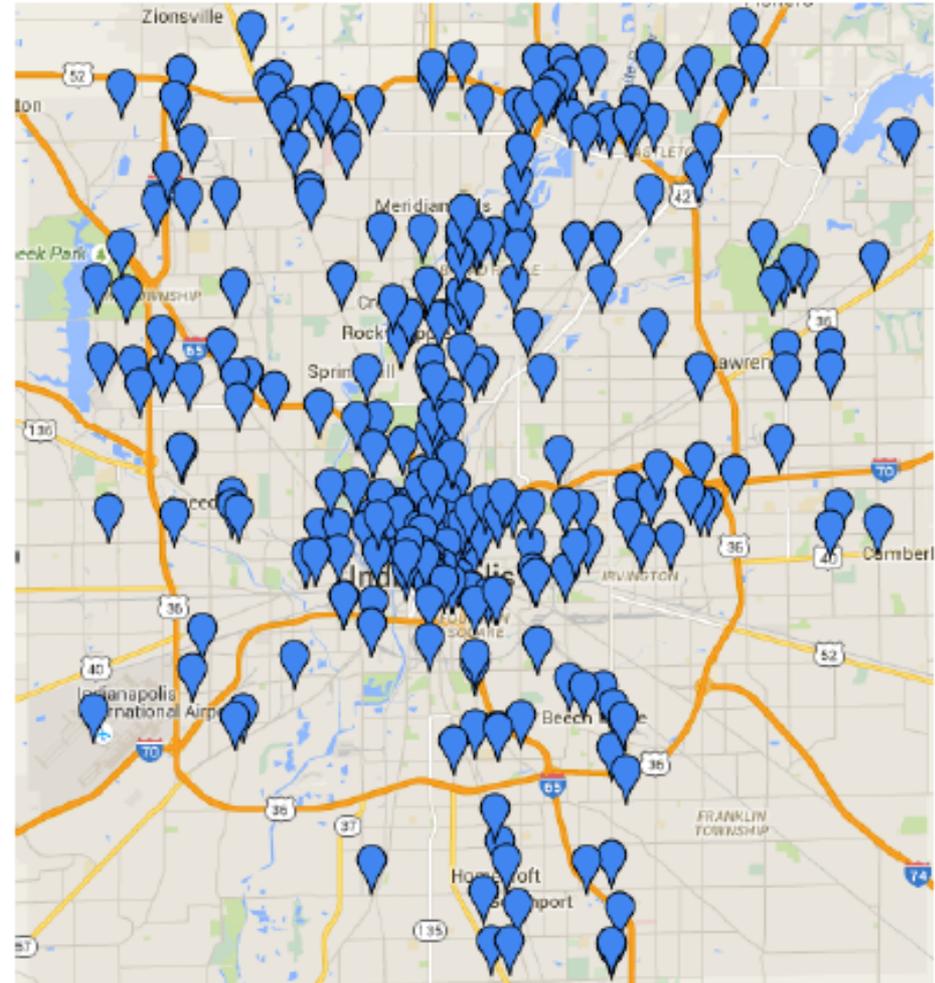


# BlueIndy Car Share

Indianapolis  
Mayor Gregory A. Ballard



- Public launch held September 2
- 50 cars and 125 charging stations
- Construction to be completed 2016:
  - 500 cars
  - 1,000 charging stations
  - 200 sites in Indianapolis
- ESN providing continued project management support through construction completion



# Vision Fleet

Indianapolis  
Mayor Gregory A. Ballard



- In 2013 ESN and Vision Ridge Capital partnered to establish Vision Fleet
- Vision Fleet is a full-serviced leasing and fleet services company focused on plug-in vehicles. The business leverages the total cost of ownership savings of plug-in vehicles to offer customers a per-mile lease that include the vehicle, charging infrastructure, fuel, maintenance, and telematics.



Vision Fleet Capital

Fixed-rate, long-term financing.



Vision Fleet IQ

Analytics for data-driven decision makers.



Vision Fleet Assist

Your partner in the field.



# Indy's Freedom Fleet



- In 2012, Indianapolis Mayor Greg Ballard announced plans to transition all city sedans to plug-in vehicles by 2025
- Vision Fleet executed contract with Indianapolis in 2013 to deploy 425 plug-in sedans
- Currently more than 200 cars deployed giving Indianapolis the largest plug-in fleet in US
- Each car is saving the city \$2,000 a year
- Vision Fleet recently announced a second contract in with the City of Atlanta.



Average forecast total annual costs per vehicle over next 10 years  
(includes all costs of buying, fueling, maintaining, and infrastructure)



# Indy's Freedom Fleet

Indianapolis  
Mayor Gregory A. Ballard



**By Dept**  
Police (106) Public Works (15) Code Enforcement (11)  
Coroner (7) Fire (5) Probation (5) Engineering (4)

DAILY BATTERY UTILIZATION    ELECTRIC VMT / TOTAL VMT



That's 2.5x the fleet average    Avg daily VMT = 39 mi/veh

**445,000**    **42,300**

TOTAL ELECTRIC MILES    GALLONS OF GAS SAVED

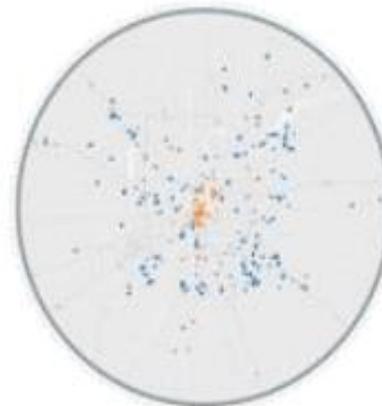
377 MTCO<sub>2e</sub> AVOIDED



**41** PURSUIT-RATED VEHICLES MADE AVAILABLE FOR REDEPLOYMENT INTO PURSUIT DUTY CYCLES

*"I really like the idea of saving fuel. My vehicle has used only 46 gallons of gas over 3 months and 5,500 miles."*  
- Driver #60

**87%** OF DRIVERS SURVEYED STRONGLY AGREE OR AGREE THAT THE VEHICLE IS SAFE AND RELIABLE.



Charging has occurred at 236 unique locations spanning approx. 800 square miles.

Charger	Total kWh	% Total
Level 1	136,900	79%
Level 2	35,925	21%

**13,525<sup>1</sup>**

Average annual VMT for Freedom Fleet vehicles

The fleet average is 5-6K

**41** DRIVERS ACTIVELY PARTICIPATING IN CAR SHARING PROGRAMS

1: Annual VMT figures are projected based on data gathered to date. PEV = Plug-In Electric Vehicle, VMT = Vehicle Miles Traveled.