# Indiana Transportation Electrification Bootcamp

April 14, 2023

RIVIAN



Electrification Coalition

# HOUSEKEEPING

- □ **Please** Sign In: First, Last + Organization in chat box now
- □ We will be **recording** this bootcamp (and share later, with slides)
- □ Speaker Bios are hyperlinked in agenda we will send through chat
- □ Chat: Please use Zoom's Q&A function for questions
- **Tech Help**: Please chat privately **ECTECH**





## GET READY FOR SOME **GREAT SPEAKERS!**



Admiral Dennis Blair. Former U.S. Director of National Intelligence, U.S. Navy Admiral (Ret.)



**Representative Mike** Karickhoff, District 30 & Speaker Pro Tempore



Hamilton.

District 87

Kerri Garvin.

Cities Inc.

**Representative Carey** Ryan Hadley, IN Office of Energy Development

Scott Manning, IN Department of Transportation



Shawn Seals IN Department of Environmental Management



**Anthony Maietta** United States Environmental Protection Agency



John Douglas, Crawfordsville Electric Light & Power





Mike Maten, General Motors



Ben Wrightsman, **Battery Innovation Center** Greater Indiana Clean



Carl Lisek, Drive Clean Indiana



Paula Brooks Hoosier Environmental Council



Matthew Jones. Francis Energy





LaToya King South Bend Community School Corp.





# Electrification Coalition

The **Electrification Coalition** is a nonpartisan, nonprofit organization dedicated to driving the policies and actions that will electrify all modes of transportation to protect economic and national security, public health, and American jobs.

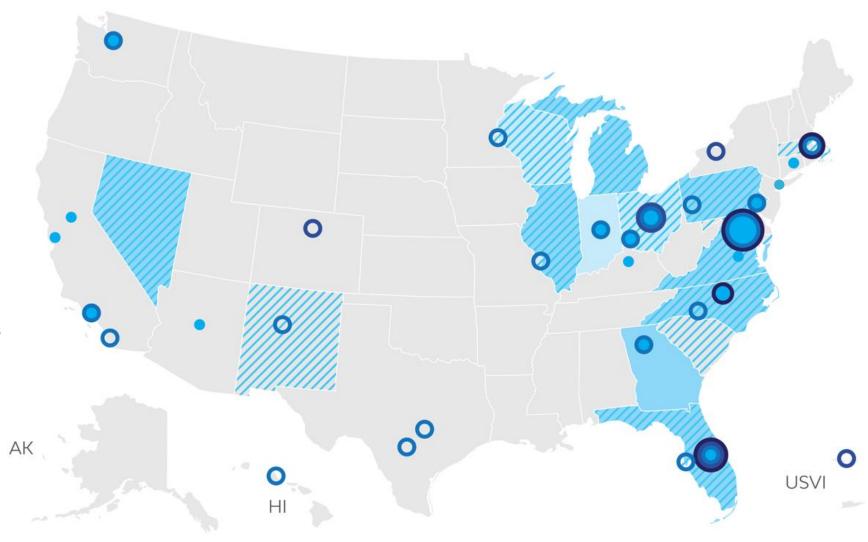




### The EC National Presence

EC Staff Locations
Priority States
Tier 2 States
State Fleet Cohorts
Priority Cities
Smart / Accelerator Cities
Roadmap Cities

\*Does not include national programs like the Climate Mayors EV Purchasing Collaborative that works with more than 400 public fleets across America.





## **Electrification Coalition Business Council**

The United States' transition to an electrified transportation future isn't a question of if – it's when. ECBC creates a strategic alliance that can supercharge support for the policies and actions needed to accelerate transportation electrification at a mass scale.









Advancing Vehicle to Grid Technology Adoption Policy Recommendations for Improved Energy Security and Resilience



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 FEDERAL FLEET

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**Electrifying Freight**: Pathways to Accelerating the Transition





Explore more resources at www.electrificationcoalition.org

Version 4.0, August 2020

# **Bloomberg Philanthropies**

### **American Cities Climate Challenge**

St. Paul increased EV deployment of the HourCar program from 50 to 100 EVs.



Albuquerque's application for FTA Low-No funding resulted in **\$980,000 in funding** for 5 new Battery Electric Buses and EV charging.



Cincinnati submitted a robust application for \$240,000 in EV charging projects.

# US DOT Smart City Challenge

- Nearly \$350 million in public and private funds for smart city and advanced transportation technologies with U.S. Department of Transportation and Paul G. Allen Foundation
- Columbus, OH launched Smart Columbus program, focused on connected, autonomous, shared, and electric technologies







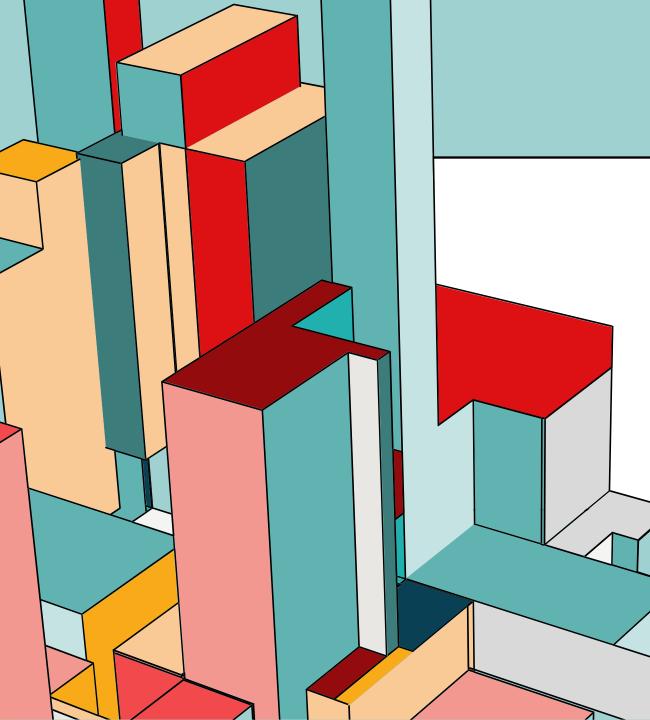
# Climate Mayors EV Purchasing Collaborative

- A partnership designed to help accelerate the electrification of public fleets across the country
- The Collaborative works to reduce the costs and barriers to electrifying fleets to make it easy for public fleets to go electric

Learn more at www.DriveEVfleets.org







### **SPARK!** STATE PLUG-IN ADOPTION RESOURCE KIT

A State Fleet Electrification Resource designed in partnership by the *Electrification Coalition* and US Climate Alliance

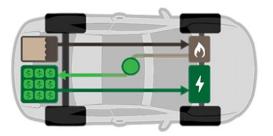


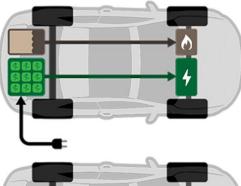


# EV BASICS



# **Electric Vehicle Types**







#### HYBRID VEHICLE (not considered an EV)

Internal combustion engine is the primary energy source. Cannot be charged through a plug, but it does have an electric motor and a battery that can be recharged through regenerative breaking.

#### PLUG-IN HYBRID ELECTRIC VEHICLE (PHEV)

PHEVs are powered by an internal combustion engine AND an electric motor. The vehicle can be plugged into an electric power source to charge the battery. Some can travel up to 100 miles on electricity alone, and all can operate solely on gasoline if needed.

#### **BATTERY ELECTRIC VEHICLE (BEV)**

BEVs use a battery to store the electric energy that powers the motor. EV batteries are charged by plugging the vehicle into a power source. Because there is no internal combustion engine, zero tailpipe emissions are produced.



### Vehicle Type Examples





Toyota Prius



Honda Accord Hybrid



Hyundai Sonata Hybrid





Toyota Prius Prime



Honda Clarity PHEV



Kia Niro PHEV



Tesla (Model 3)

Nissan LEAF



Chevrolet Bolt



**BEV** 

# What Are Charging Levels?

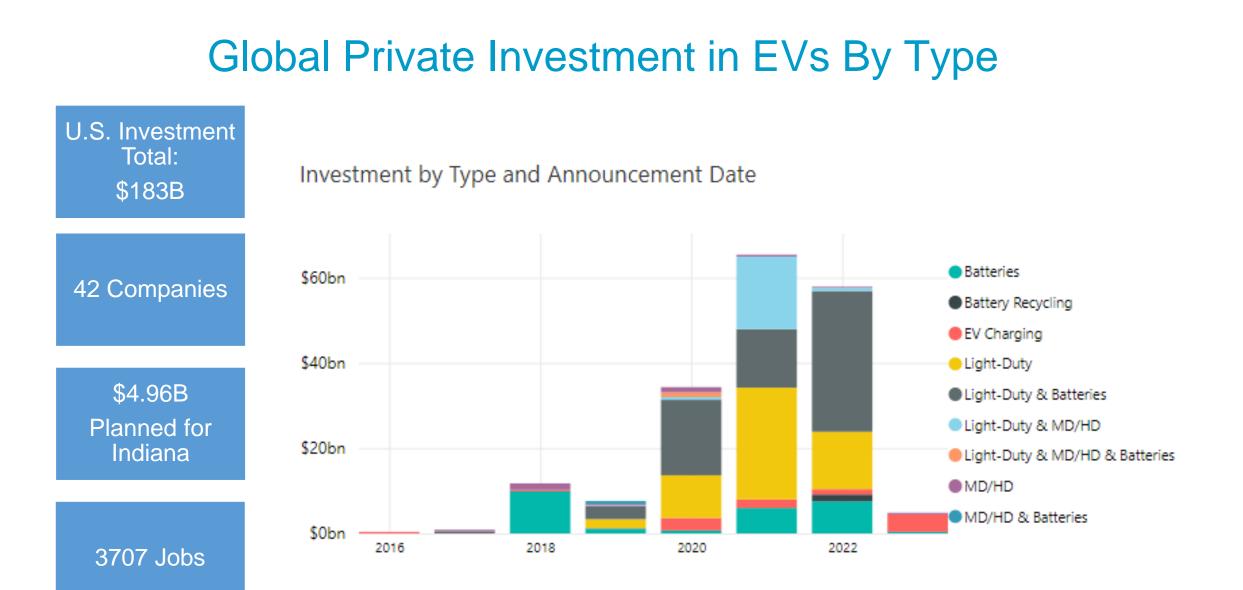
Level 1 chargers use standard 120V outlets. 120V circuits are also used by most home electronics. 1 hour = 5 miles. Used at home. Level 2 chargers use 240V circuits. 240V circuits are also used by dryers and stovetops. 1 hour = 25-45 miles. Used at home, in public or at work. Direct Current (DC) Fast Chargers use 480V circuits at public charging stations. 10 minutes = 40+ miles.

Level 1

Level 2

**Direct Current** 

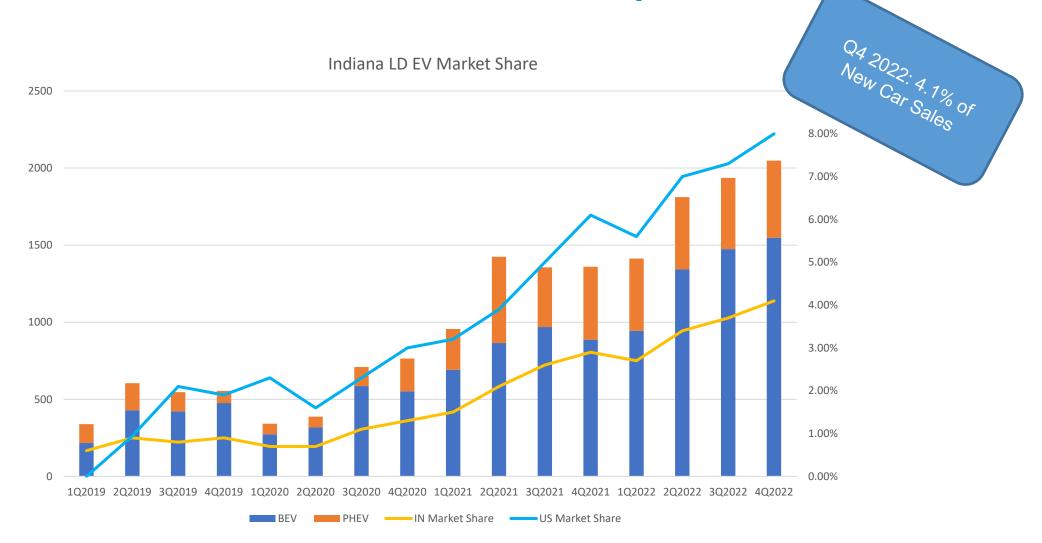
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Source: Atlas Public Policy EV Hub - Private Investment

# Indiana EV Market Snapshot





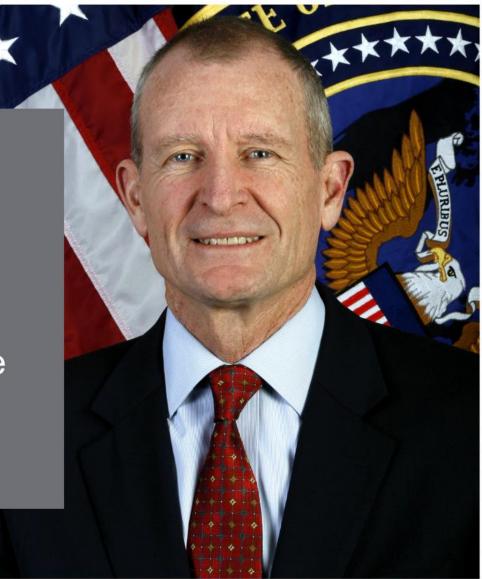


# Buckle Up! Let's Get Started



# Admiral Dennis Blair

Former Director, National Intelligence and Commander in Chief, U.S. Pacific Command





# Representative Carey Hamilton

IN House, District 87



# Representative Mike Karickhoff

IN House, District 30, Speaker Pro Tempore





# WE WILL BE RIGHT BACK AFTER THIS SHORT BREAK

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RYAN HADLEY Executive Director, Indiana Office of Energy Development



#### SCOTT MANNING

Deputy Chief of Staff, Indiana Department of Transportation



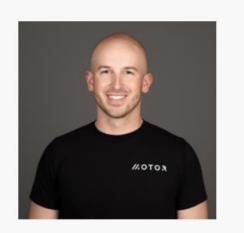
#### SHAWN SEALS

Senior Environmental Manager, Indiana Department of Environmental Management The State of the State for EVs in Indiana



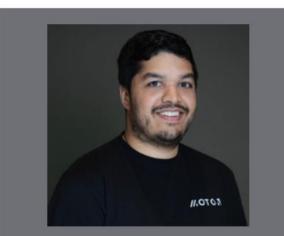
#### JOHN DOUGLAS

Assistant General Manager, Crawfordsville Electric Light & Power



#### RHETT BARKER

Regional Business Lead, MOTOR



VINEET RAMAN Director of Utility Partnerships, MOTOR Adapting the Grid for Indiana's Electric Future

# Spencer Burget

Policy Associate ATLAS Public Policy



# Indiana Market Update



#### BEN WRIGHTSMAN

Chief Executive Officer, Battery Innovation Center



#### MICHAEL MATEN

Director of EV Policy and Regulatory Affairs, General Motors Manufacturing and Assembly: Private Sector Investment

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# Paula Brooks

Environmental Justice Director Hoosier Environmental Council



# **Environmental Justice:** Ensuring Benefits for All

# ELECTRIFICATION IN RURAL COMMUNITIES



**KERRI GARVIN** Executive Director,

Greater Indiana Clean Cities, Inc.



PAULA BROOKS Environmental Justice Director,

> Hoosier Environmental Council



#### JOAN SOLLER

Director of Grid Innovation & Portfolio Integration,

Wabash Valley Power Alliance



#### MATTHEW JONES

Director of Government Relations,

Francis Energy

### GETTING BUSES ON THE STREETS: ELECTRIFYING SCHOOL BUSES



CARL LISEK Executive Director,

Drive Clean Indiana



ANTHONY MAIETTA Environmental Protection Specialist,

U.S. Environmental Protection Agency



#### LATOYA KING Director of Transportation,

South Bend Community School Corp.



#### NATALIA AKOPIAN

Policy & Government Affairs Analyst, Electric School Bus Initiative,

> World Resources Institute





### Katie Lineweaver Robinson, VP of Programs



# Thank You!

**Contact the EC's Indiana Team:** 

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