Power A Clean Future Ohio

LOCAL COMMUNITIES LEADING THE WAY

CLEAN FUELS OHIO

OHIO'S CLEAN TRANSPORTATION ADVOCATE

Making Your Community EV Ready

April 26, 2022

Agenda

1. Welcome & Intro
2. Why EV Fleets?
3. EV Fleet Planning
4. Federal Funding Opportunities
5. Questions & Answers


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OHIO
We are making Ohio a cleaner and more prosperous state

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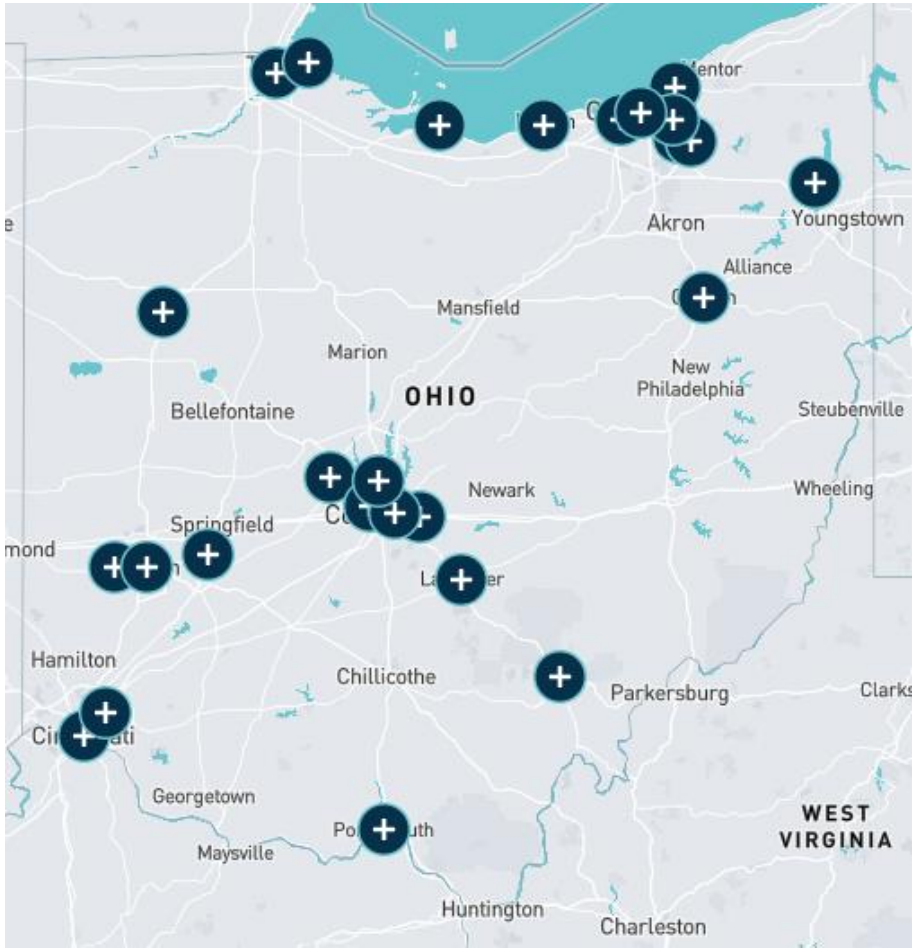
Power a Clean Future Ohio Communities:



FREE EV Fleet & EVSE Analysis and Planning services are available to PCFO Leading communities from Clean Fuels Ohio

WHY EV FLEETS?

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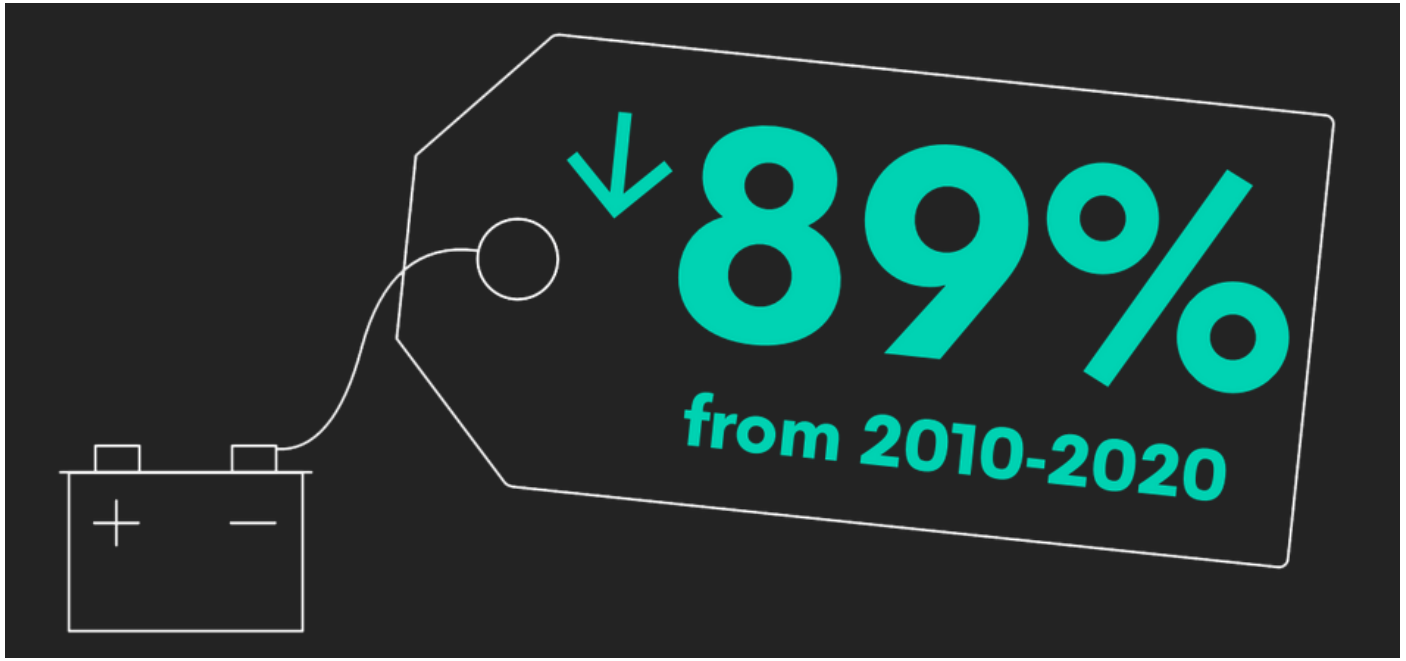
BATTERY COSTS FALLING FAST

Falling lithium-ion battery prices



$137/kWh **(volume weighted price average)**

Most analysts agree **EV price parity** vs conventional fuels **when battery costs are <$100/kWh,** likely achieved in **the mid-2020s**.

*https://about.bnef.com/electric-vehicle-outlook/#toc-download

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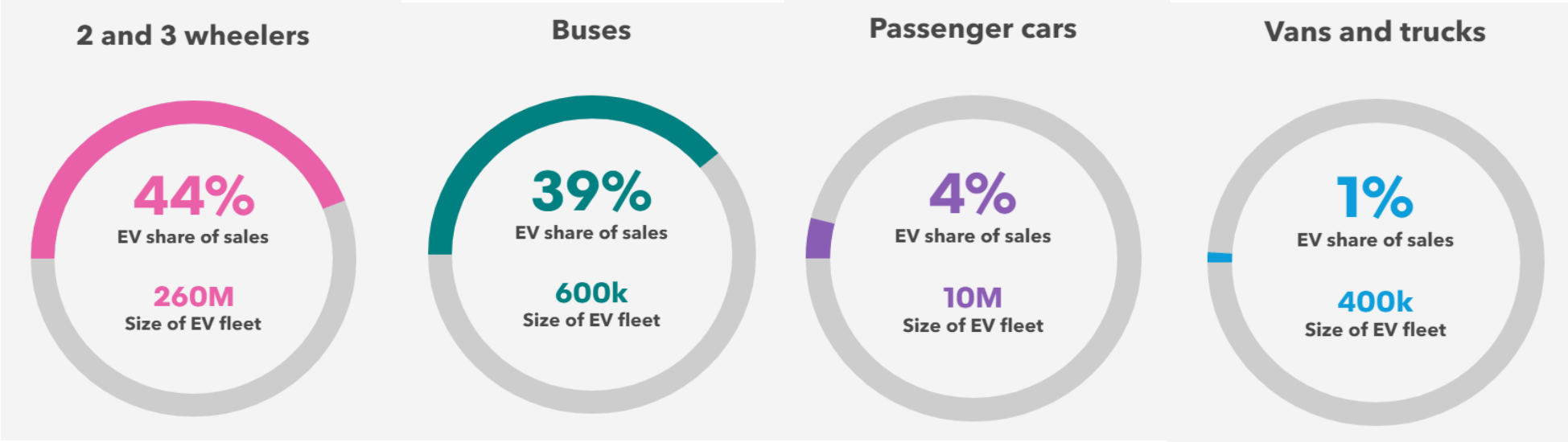
2020 US EV MARKET SHARES

BloombergNEF

Electric Vehicle Outlook 2021



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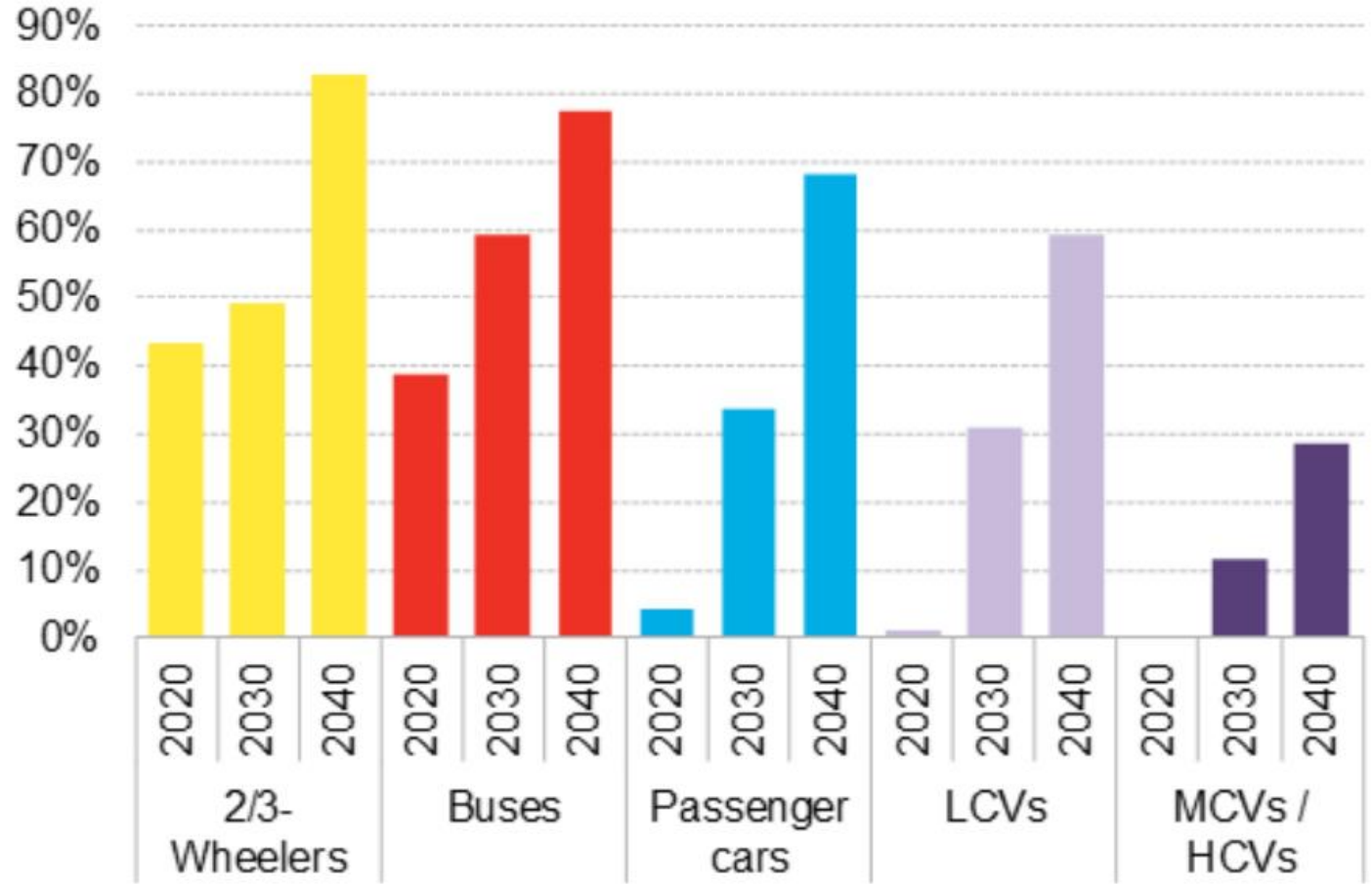
US EV SALES PROJECTIONS

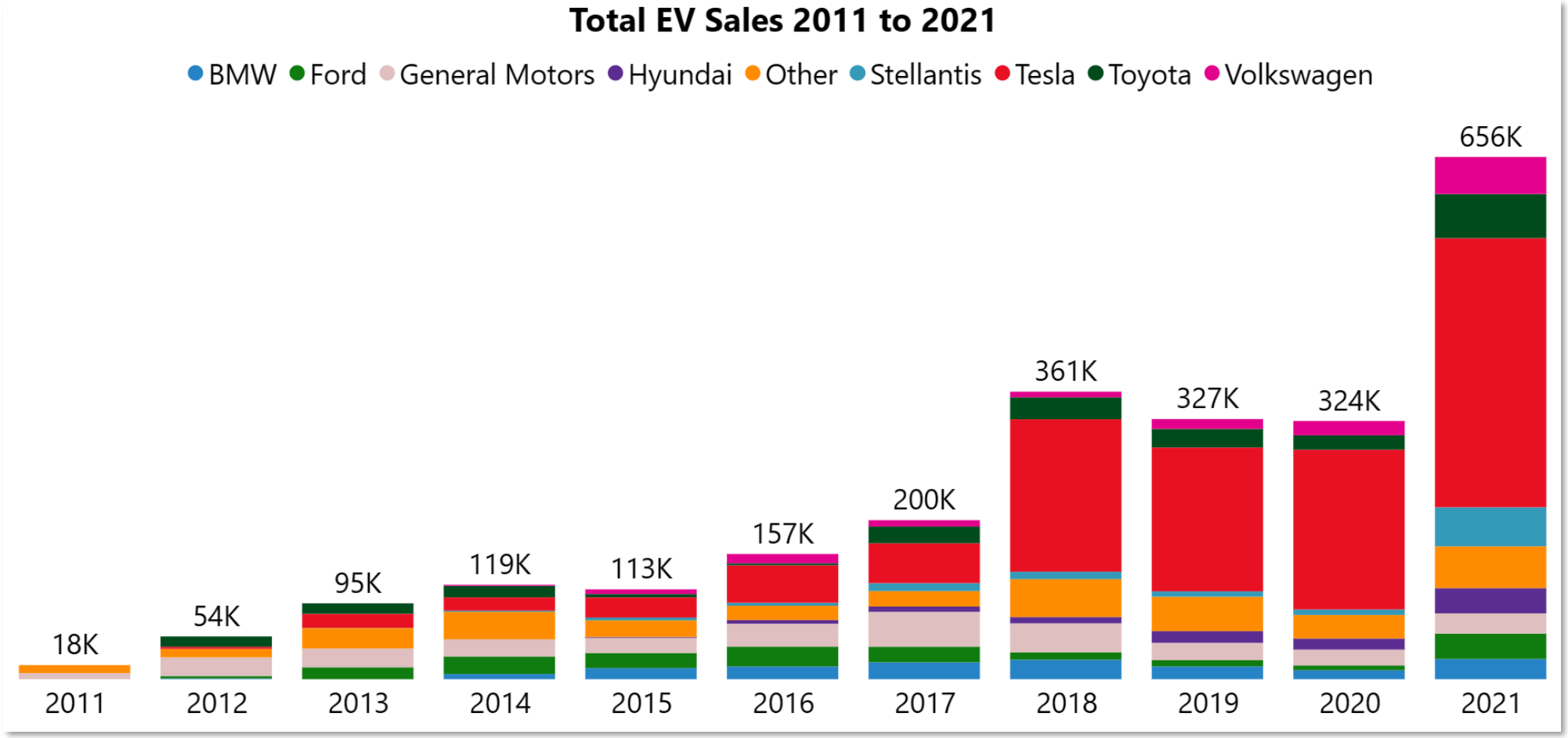
BloombergNEF

Electric Vehicle Outlook 2021



Source: BNEF. Note: LCVs = light commercial vehicles. M/HCVs = medium/heavy commercial vehicles.

*https://about.bnef.com/electric-vehicle-outlook/#toc-download



U.S. EV Sales Soar 102% in 2021

- 655K EVs sold in 2021, more than a quarter of all EVs sold
- EVs achieve 5.8 percent market share in Q4
  - 4.4 percent market share for the year
- 71K EVs sold in December sets all-time record
  - Monthly sales records in each month of 2021

Source: Automakers Dashboard - Atlas EV Hub

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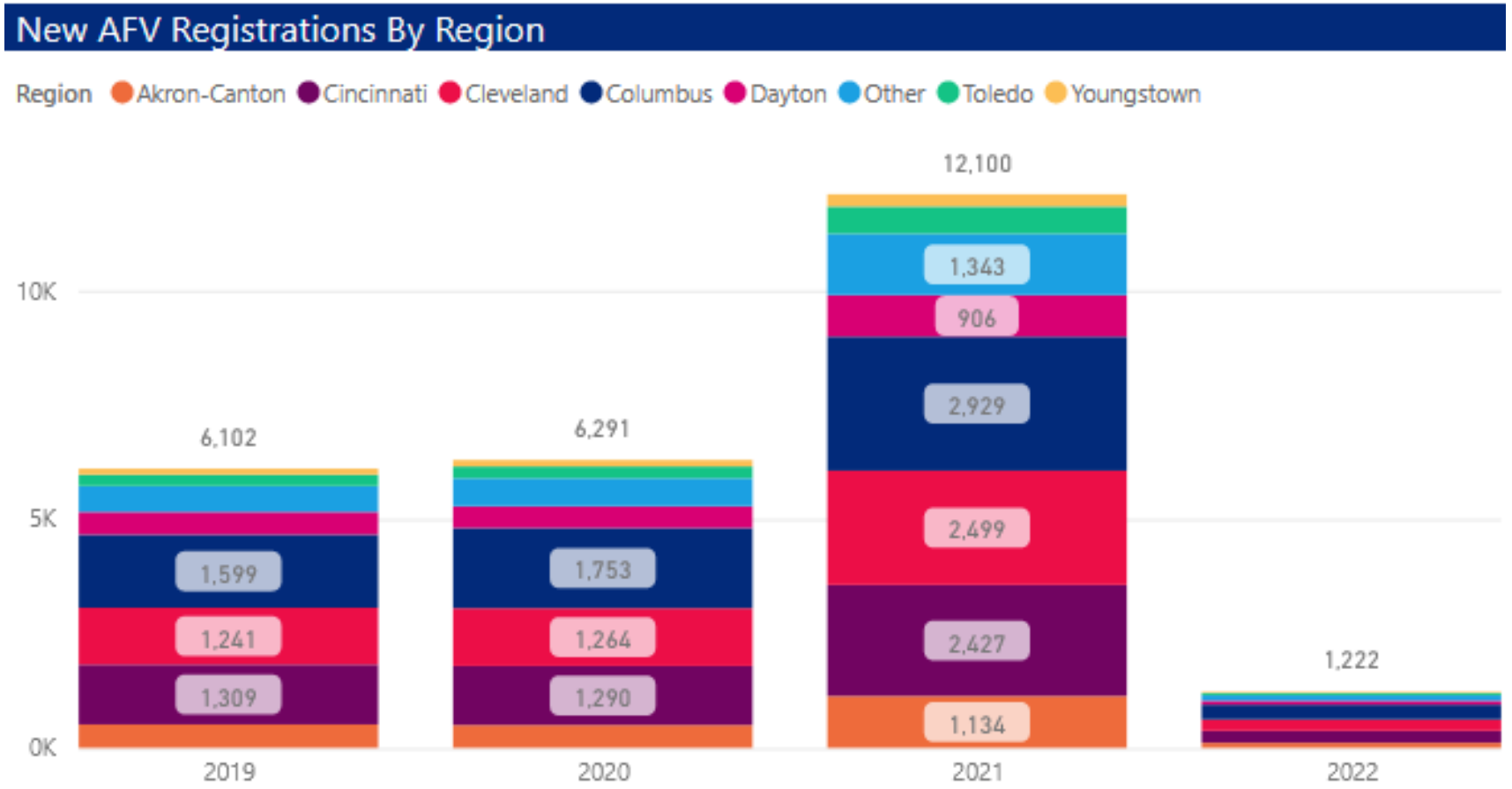
OHIO EV SALES GROWTH

2021 Ohio EV Sales Set Record Pace

*https://drive.ohio.gov/wps/portal/gov/driveohio/about-driveohio/resources/ohio-alt-fuel-vehicle-reg-dashboard



***Data includes dedicated battery electric vehicles (BEV) and plug-in hybrid electric vehicles (PHEV)*

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EV COST SAVINGS

CR Consumer Reports™

Electric vehicles save consumers money

A Consumer Reports analysis of electric vehicle (EV) ownership costs takes fuel, maintenance and repair costs into account, in addition to purchase price, financing, and resale value.

Owning an electric vehicle will save the typical driver $6,000 to $10,000 over the life of the vehicle, compared to owning a comparable gas-powered vehicle.

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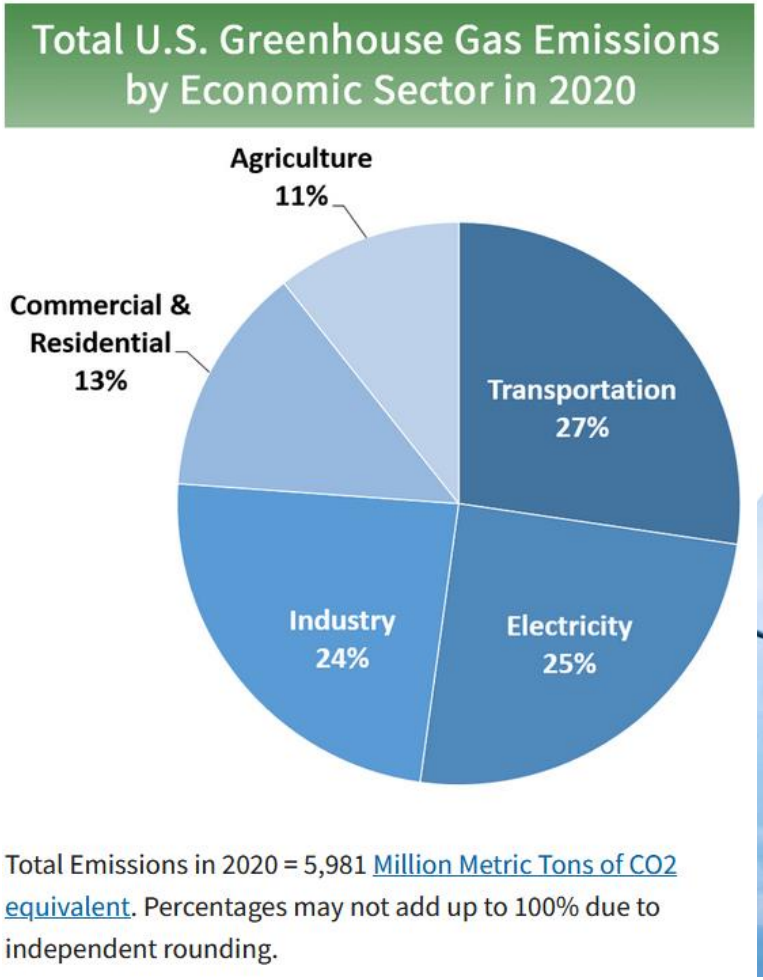
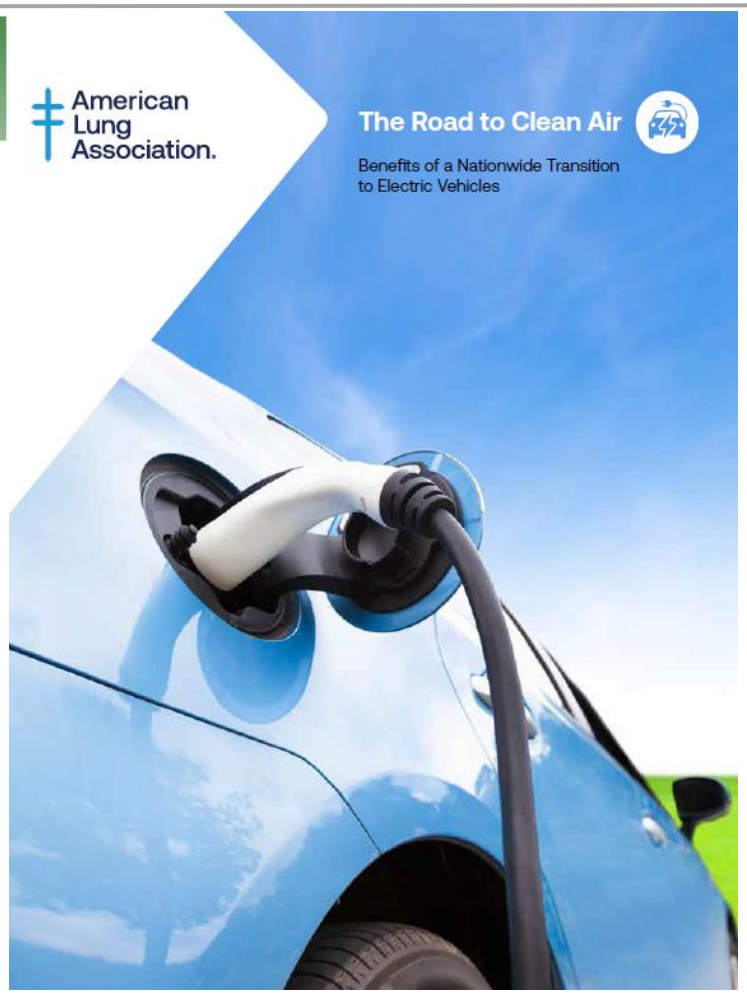
DECARBONIZATION & CLEAN AIR



https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions



https://www.lung.org/clean-air/electric-vehicle-report

- **27%** of US greenhouse gas emissions come from transportation, more than any other sector
- transitioning to a nationwide electric transportation system by 2050 would **save approximately 6,300 lives** every year and **avoid 93,000 asthma attacks** and **416,000 lost work days** annually

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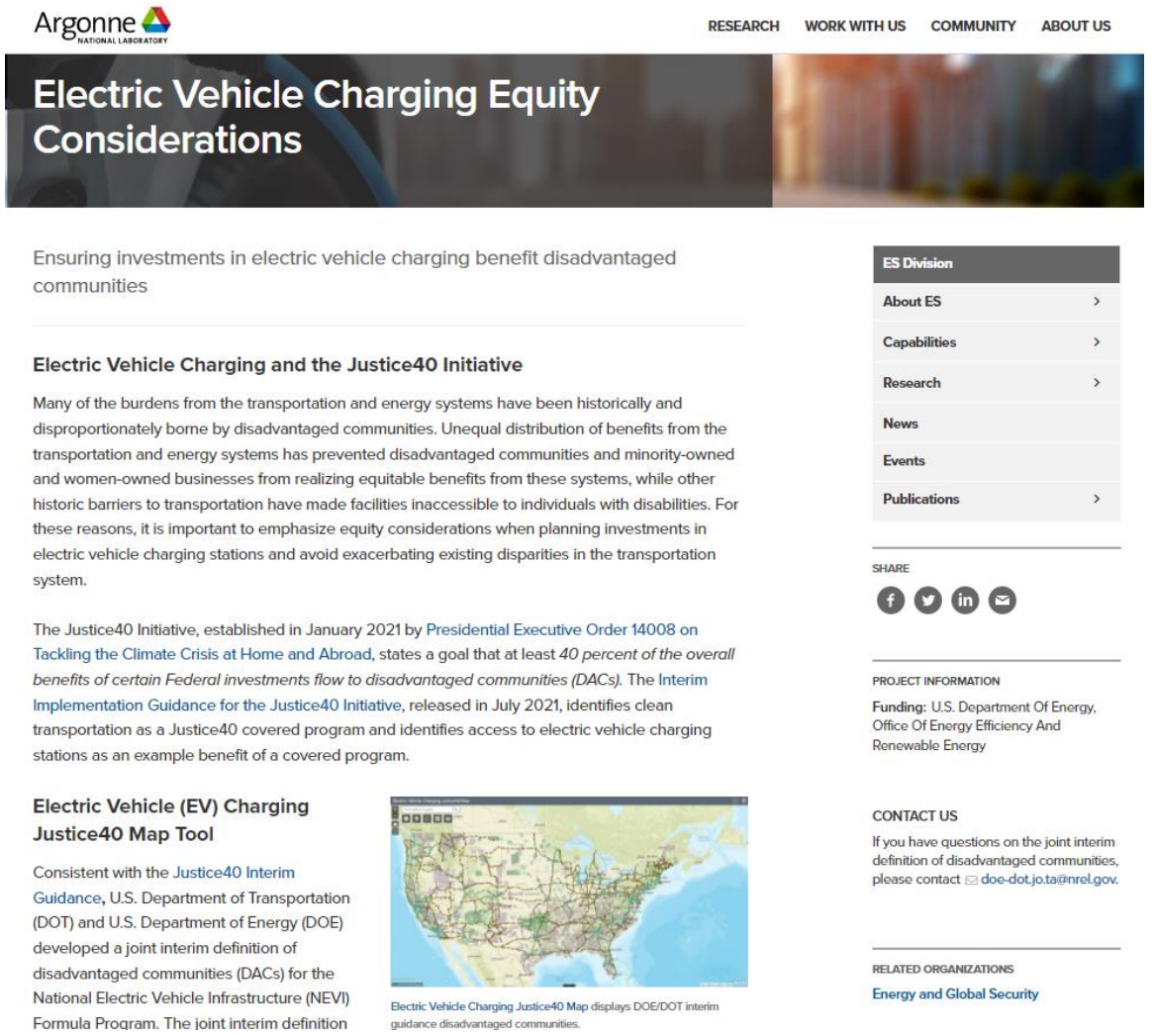
TRANSPORTATION EQUITY

Clean Cities Energy and Environmental Justice (EEJ) Initiative

Provide Clean Cities Coalitions training, resources, and funding to pursue EEJ activities

Benefit DACs through capacity building, community engagement, technical assistance, and training

Develop best practices for future Clean Cities EEJ activities.



https://www.anl.gov/es/electric-vehicle-charging-equity-considerations

EV FLEET PLANNING PROCESS

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REPLACEMENT FEASIBILITY

GETTING THE JOB DONE
(FLEET PERFORMANCE)

SUSTAINABILITY GOALS & PLANNING

$ STAYING WITHIN BUDGET

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EV FLEET ANALYSIS & PLANNING

1) Understanding Fleet Operations

a) Goal Setting

b) Data Gathering & KPIs

2) Options & Replacements

a) Available Vehicle Options

b) Replacement Feasibility

3) Future Planning & Management

a) Infrastructure Needs

b) Management Best Practices

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EV FLEET ANALYSIS & PLANNING

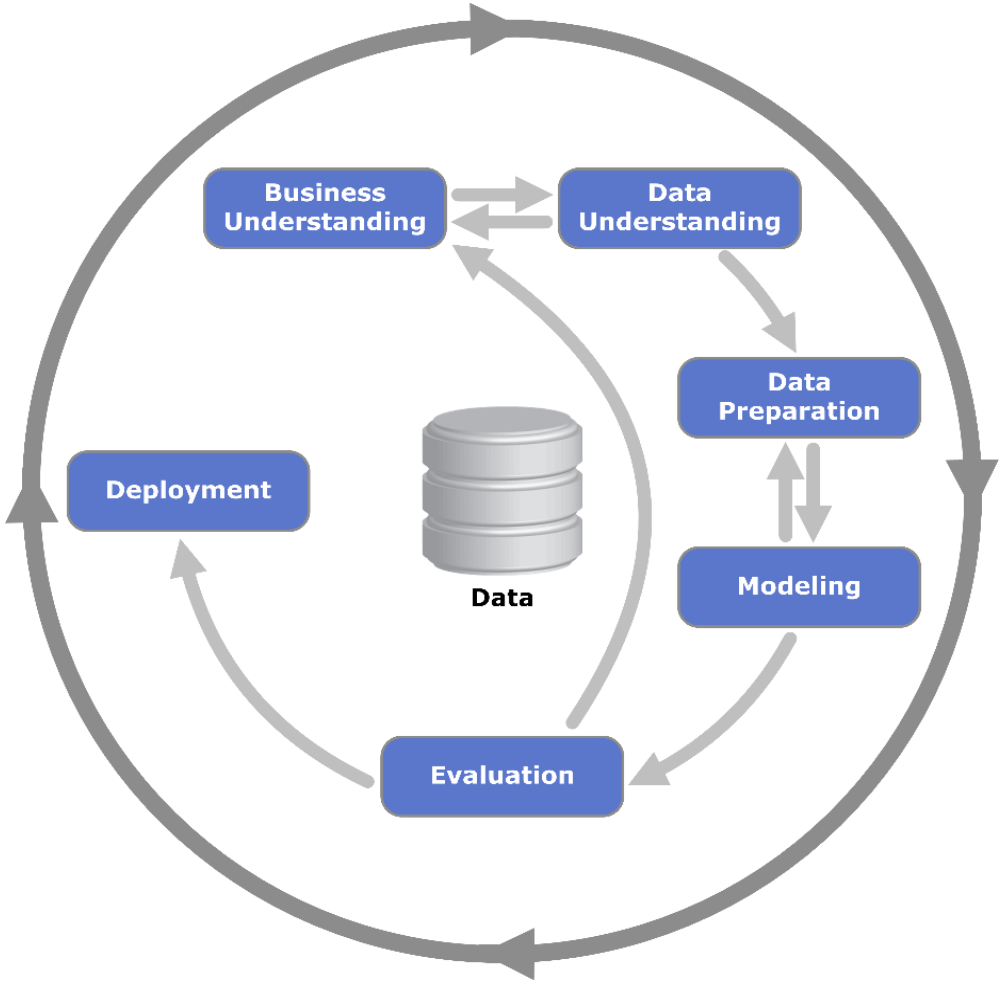
1. Understanding Fleet Operations

a. Goal Setting

- ✓ Establish fleet criteria and goals
- ✓ Cost-Effectiveness (Lifecycle or Shorter Payback)
- ✓ Sustainability/Other Goals

b. Data Gathering & KPIs

- ✓ Gather inventory and operational data
- ✓ Baseline performance assessment–key performance indicator (KPI) metrics



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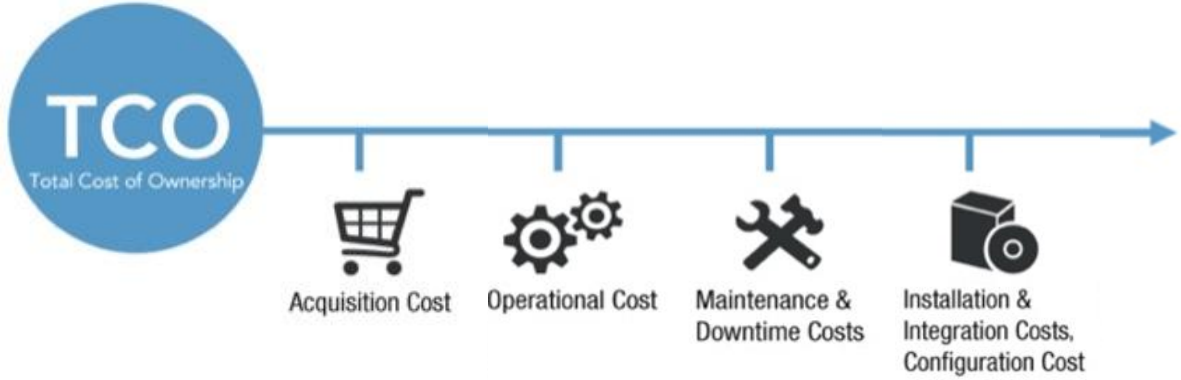
EV FLEET ANALYSIS & PLANNING

2. Options & Replacements

a. Available Vehicle Options

- ✓ Commercially Available EVs & PHEVs
- ✓ Purchasing Methods
- ✓ Near-Term and Threshold Scenarios



b. Replacement Feasibility

- ✓ ROI & TCO Modeling Tools
- ✓ Fleet-Specific Payback Timelines
- ✓ Drive & Duty & Battery Needs
- ✓ GHG Emissions Savings

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EV FLEET ANALYSIS & PLANNING

3. Future Planning & Management

a. Infrastructure Needs

- ✓ EV Charging Station Requirements
- ✓ Vendor and Ownership Model Options
- ✓ Procurement, Installation, Operation, and Maintenance Considerations

b. Management Best Practices

- ✓ EV Implementation Resources
- ✓ Alternate GHG Emissions Savings Practices
- ✓ Funding Guidance

FEDERAL EV & EVSE FUNDING OPPORTUNITIES

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INFRASTRUCTURE GRANT ASSISTANCE PROGRAM

Priority Clean Transportation Areas of the IIJA/BIL

- $5 billion for states to build a national EV charging network along corridors (U.S. DOT program)
- $2.5 billion in community grants for EV charging, as well as hydrogen, natural gas, and propane fueling infrastructure (U.S. DOT program)
- $5.6 billion in support of low- and no-emission transit bus deployments (U.S. DOT program) – **2022 Deadline May 31**
- $5 billion in support of electric school bus deployments (U.S. EPA program)

2022 Low-No & Buses and Bus Facilities Competition

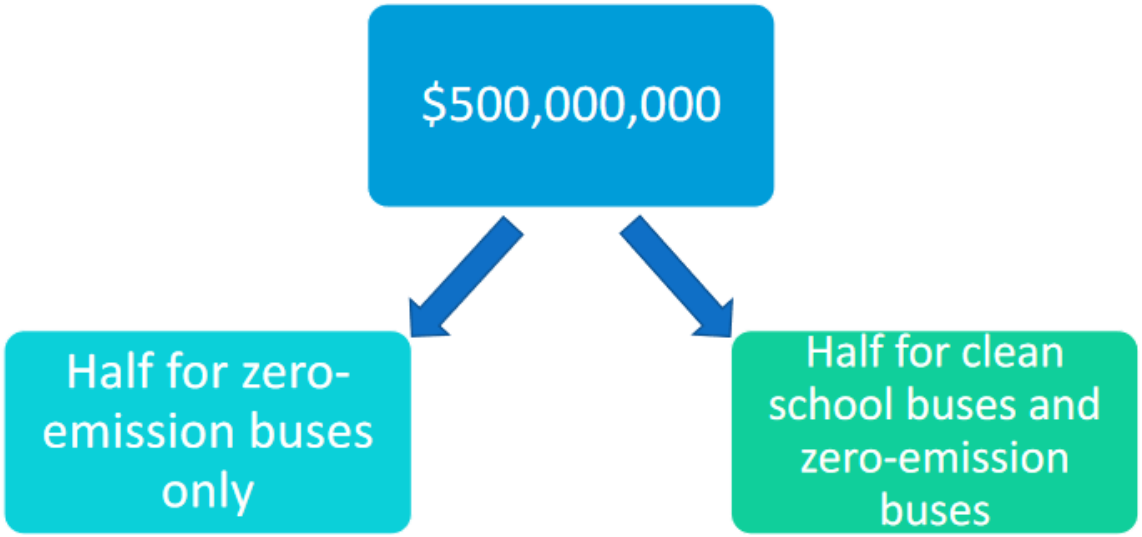
Available Funding: Approximately $1.72 billion

- Buses and Bus Facilities Competitive: Approximately $545 million
- Low or No Emissions: $1.176 billion ($294 million for low emission projects)

Important Dates	
Notice of Funding Opportunity	March 4, 2022
Applications Due	11:59pm EST May 31, 2022
Project Evaluations	June-July, 2022
Award Announcement	No Later than August 15, 2022
Pre-Award Authority	Starts on date of project announcement
Available for Obligation	The year of award plus 3 years – September 30, 2025

https://www.transit.dot.gov/sites/fta.dot.gov/files/2022-03/FY22-Low-No-Bus-Public-Webinar.pdf

2022 Clean School Bus Rebate Program - Available Funding



- EPA may award more than $500,000,000 based on applicant demand and other considerations.
- The amount received by all eligible entities in a State cannot exceed 10 percent of the total amount awarded each fiscal year.

18

https://www.epa.gov/system/files/documents/2022-03/clean-school-bus-info-webinar-2022-03-23_1.pdf

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