



# PA DEP Electric Vehicle Programs

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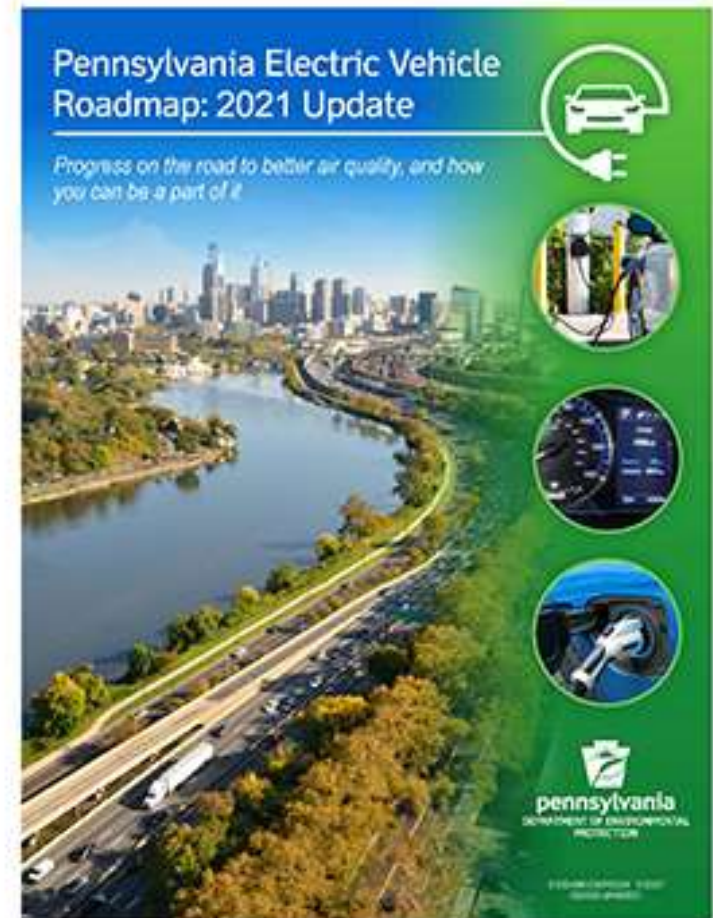
Josh Shapiro, Governor

Richard Negrin, Acting Secretary

# PA Electric Vehicle Roadmap

- 13 recommended actions to increase electric *light duty* EV use statewide
- Snapshot of status + modeling impacts of projected EV adoption rates
- Developed by DEP and the Drive Electric PA Coalition (DEPA):
  - **100+ partners:** State and local governments, industry, utilities, businesses academic and community organizations
- 2023/24 Roadmap update
  - Adding strategy for medium & heavy duty
  - Adding initial analysis for H2

<https://www.dep.pa.gov/Business/Energy/OfficeofPollutionPrevention/State-Energy-Plan/Pages/Drive-Electric-PA-Coalition.aspx>



Strategy	Near-term actions (0-2 years)	Mid-term actions (2-5 years)	Long-term actions (5+ years)
Establish utility transportation electrification directive			
Establish statewide EV sales goals			
Expand and improve AFIG rebate program			
Strengthen statewide EVSE network planning, investment, and communications			
Establish fleet education, cooperative purchase, and technical assistance program			
Create EV marketing and education campaign targeted at consumers			
Establish dealer outreach and support program			
Encourage residential and commercial EV rate designs			
Advance public and residential EVSE investment			
Develop municipal support, technical assistance, and grant program			
Establish workplace and multifamily EVSE education and outreach programs			
Adopt EV-ready building code amendments			
Explore development of financing for EVs/EVSE			



# Pennsylvania EV Rebate

## Alternative Fuel Vehicle Rebate for Individuals:

- Household income must be under 400% of federal poverty to qualify
- **\$2,000** for new or used electric vehicle
- \$1,500 for new or used plug-in hybrid
- Additional \$1,000 for applicants under 200% of federal poverty

## Alternative Fuels Incentive Grant Program



# Alternative Fuel Incentive Grant Program

- About \$3-4 million per year to incentivize fleet transitions to alternative fuels
- Competitive grant program
- Currently open – Due dates in late August and mid-December
- Three types of projects funded:
  - Incremental cost of purchasing new alternative fuel vehicles (class 1-8)
  - Fleet re-fueling equipment
  - Innovative technology

## Alternative Fuels Incentive Grant Program



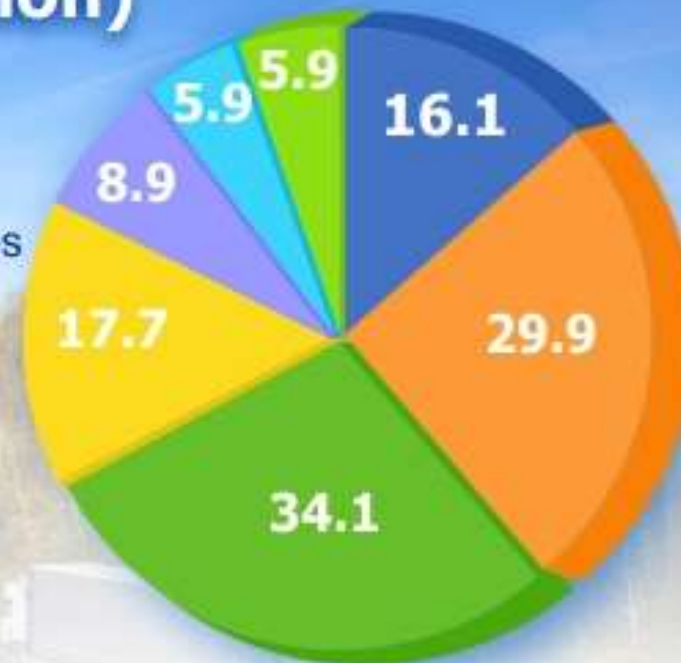
<https://www.dep.pa.gov/Citizens/GrantsLoansRebates/Alternative-Fuels-Incentive-Grant/Pages/default.aspx>

# Driving PA Forward (VW Settlement)

## Driving PA Forward Diesel Programs (\$million)

- Ferries, Tugs, Freight Switchers
- Multi Category Rebates
- ZEV Supply Equipment Grants/Rebates
- Heavy Duty Trucks & Transit Buses
- DERA
- GSE, Forklifts, Port Cargo
- Ocean Going Shorepower

**Total = \$118.5 (million)**



<https://dep.pa.gov/DrivingPAForward>



- Funding for Level 2 EV charging projects at:
  - Public spaces
  - Workplaces (employee or fleet)
  - Multi-unit dwellings
- Voucher system
- Approaching 2000 plugs installed
- Depletion by Fall 2023 likely



# Current Rebate Amounts

Project Type	Maximum Rebate per Plug	OR (whichever is less)	Maximum % of Total Project Cost
Full Public Access, Networked, Priority County	\$4,000	or	70%
Full Public Access, Networked, All Other Counties	\$3,500	or	60%
Multi-Unit Dwelling	\$3,000	or	50%
All Other Eligible Projects	\$2,500	or	40%



# DC Fast Charging and Hydrogen Fueling Grant

- Driving PA Forward (VW)
- Competitive Grant Program
- 33 projects funded
- \$7.2M committed (2019-2022)
- \$0 remaining
- ~15 projects are completed
- All to be completed by 4Q 2024



# Medium & Heavy-Duty Fleet Replacement Grant



- Driving PA Forward (VW)
- Competitive Grant Program
- Diesel truck replacement
- Focus on trucks impacting DACs
- Case study development
- Minimum 5 (or 20%) trucks per fleet
- At least \$12.7M available
- 18 fleet applications received (>\$44M)
- Summer 2023 awards
- PSU Larson Transportation Inst.

# EV Charging Electricity Rate Design Study

DEP completed a rate design study in Feb. 2023 to:

- Assess electricity rate designs that can drive further adoption of EVs while:
  - Efficiently using the grid
  - Facilitating widespread electric vehicle charging stations, including public DC fast charging
  - Maximizing the environmental benefits (emissions reductions) from EVs

Optimizing electricity rate designs for EV charging can help:

- Avoid grid upgrades by shifting charging to off-peak times
- Encourage EV adoption through low-cost charging options

[PA EV Rate Design Study \(Synapse, 2023\)](#)

## Maximizing the Benefits of Transportation Electrification in Pennsylvania

The Role of Rate Design

Prepared for Pennsylvania Department of Environmental  
Protection

February 9, 2023

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# Municipal EV Education

## Lead by Example

- Transition fleet vehicles to electric
- Install charging for employee and/or public use

## Passive Strategies

- Promote electric vehicle events and initiatives
- Plan for an electric vehicle future

## Active Strategies

- Educate individuals and organizations about electric vehicles and programs
- Sponsor or host electric vehicle events and initiatives
- Provide financial incentives
- Adopt EV-ready building codes or ordinances
- Expedite or simplify permitting processes for EV charging

# State Electric Vehicle Commitments



## MULTI-STATE MEDIUM- AND HEAVY-DUTY ZERO EMISSION VEHICLE

### MEMORANDUM OF UNDERSTANDING

- 17 states and Washington D.C. signed
- 30% of new medium and heavy-duty vehicles zero emission by 2030
- 100% of new medium and heavy-duty vehicles zero emission by 2050
- Separately, Comm of PA has a goal to electrify 25% of its passenger fleet by 2025



**pennsylvania**

DEPARTMENT OF ENVIRONMENTAL PROTECTION



Energy Programs Office

# Questions?

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