Charging Forward
A Toolkit for Planning and Funding Rural Electric Mobility Infrastructure
www.transportation.gov/rural/ev/toolkit
Poll Questions
Webinar Agenda

1. Welcome and Introductions
2. Overview of Charging Forward: A Toolkit for Planning and Funding Rural Electric Mobility Infrastructure
3. Case Study: Electric Vehicle Charging in Athens County, Ohio
4. Upcoming Activities
5. Q&A
Poll Questions
DOT & DOE Leadership Perspective
Charging Forward
About the ROUTES Initiative

The Rural Opportunities to Use Transportation for Economic Success (ROUTES) Initiative aims to address disparities in rural transportation infrastructure and improve safety and economic competitiveness nationwide.

The ROUTES Initiative will...

**Engage Rural Communities** through a series of events to better understand the needs and priorities of rural communities and collect essential data from stakeholders representing different communities, groups, workers, and industries to identify solutions.

**Harmonize DOT Programs** to implement rural policy by establishing the ROUTES Council to lead and coordinate Departmental activities to implement BIL and better align new and existing funding, financing, and technical assistance programs with the needs of rural and Tribal communities.

**Utilize a Whole-of-Government Approach** by partnering with other rural-focused Federal agencies such as DOE, DOI, and USDA to expand DOT’s presence in rural America, better promote DOT’s resources to their customers, and capitalize on synergies between Federal funding programs.

www.transportation.gov/rural
Electrification of Rural Transportation

All Americans should have the opportunity to benefit from the lower operating costs, reduced maintenance needs, and improved performance that EVs provide.

**WHY RURAL**

- Transportation makes up **20% of rural household expenses**, compared to 16% in urban areas.
- Rural households spend **44% more on transportation fuel** than urban households.
- Rural residents drive **10 more miles per day** on average than urban residents.

**WHY NOW**

- **Federal strategy** to build 500,000 electric vehicle (EV) chargers nationwide.
- **Bipartisan Infrastructure Law** includes $7.5 billion of funding for new EV chargers and other alternative fueling infrastructure.
- **Executive Order** targeting 50% of new vehicles sold in 2030 be zero-emission vehicles.

USDOT’s **Rural EV Infrastructure Toolkit** was created under the ROUTES Initiative to help rural entities plan and fund EV chargers.
What is This Toolkit?

The toolkit provides a free, one-stop resource to help rural stakeholders scope, plan, and fund EV charging infrastructure.

**Toolkit Purpose**

- Provide rural stakeholders with an easy-to-use guide for planning, funding, and implementing EV charging stations

**Audience**

- Local rural governments
- Retail and other business owners
- Gateway communities (e.g., near national parks)
# USDOT’s Rural EV Infrastructure Toolkit

**Charging Forward: A Toolkit for Planning and Funding Rural Electric Mobility Infrastructure**

## TABLE OF CONTENTS

- Electric Vehicle Basics
- Benefits and Challenges of Rural Vehicle Electrification
- Partnership Opportunities
- EV Infrastructure Planning for Rural Areas
- EV Infrastructure Funding and Financing for Rural Areas

## INCLUDES...

- Grant and loan opportunities
- Planning tools and resources
- Rural success stories

[www.transportation.gov/rural/ev/toolkit](http://www.transportation.gov/rural/ev/toolkit)
Plan for Spring/Summer 2022

USDOT is organizing virtual workshops with rural communities across the country to “test drive” the toolkit and inform a revised version.

February 2022
Initial Toolkit

Winter/Spring 2022
Community Workshops

Summer 2022
Revised Toolkit

Download the toolkit and submit feedback online.

Up to 10 workshops with individual rural and tribal communities to
- Build community knowledge of EV infrastructure
- Obtain feedback on the toolkit

Planned updates
- Updated content based on stakeholder feedback
- Expanded information on electric transit vehicles, school buses, and micro-mobility
- Updated funding programs, including the Bipartisan Infrastructure Law (BIL)

Feedback requested:
transportation.gov/rural/ev/toolkit/feedback

Note: BIL is not covered in the current version.
Electric Vehicle (EV) Basics
Types of Electric Vehicles (EVs)

BEVs and PHEVs run on electricity from batteries that are charged by an external power source.

**Battery Electric Vehicles (BEVs)**
All-electric vehicles that run only on electricity from batteries.

**Plug-in Hybrid Electric Vehicles (PHEVs)**
Run on a combination of electricity from batteries and an internal combustion engine fueled by gasoline or diesel fuel.

*Other types of electric drive vehicles cannot be “plugged in” to recharge.*
Types of EV Chargers

EVs can be charged by EV supply equipment (EVSE) with differing charging powers and speeds.

**Level 1 Charger**
- Provides **2-5 miles** of range per hour of charging.
- Charging time from empty: 40-50hrs (BEV); 5-6hrs (PHEV)
- **Typical use**: Home charging; long-term parking.

**Level 2 Charger**
- Provides **10-20 miles** of range per hour of charging.
- Charging time from empty: 4-10hrs (BEV); 1-2hrs (PHEV)
- **Typical use**: Home, workplace, and public charging.

**Direct-Current Fast Charger (DCFC)**
- Provides **180-240 miles** of range per hour of charging.
- Charging time from empty: 20mins - 1hr (BEV)
- **Typical use**: Public charging
Benefits and Challenges of Rural Vehicle Electrification
Benefits to Individuals
EVs offer numerous benefits to individual vehicle owners.

Electric vehicles have
• Higher energy efficiency,
• Lower fuel costs, and
• Lower maintenance costs than similar conventional vehicles.

Lower ownership costs
Accessible fueling infrastructure
Expanding vehicle options
Increased resilience
Benefits to Individuals

EVs offer numerous benefits to individual vehicle owners.

- Lower ownership costs
- Accessible fueling infrastructure
- Expanding vehicle options
- Increased resilience

EVs can be charged at home, work, community sites, grocery stores, and other locations that offer parking with EV chargers.
Benefits to Individuals

EVs offer numerous benefits to individual vehicle owners.

- Lower ownership costs
- Accessible fueling infrastructure
- Expanding vehicle options
- Increased resilience

In 2019 there were 72 light-duty EV models for sale in the U.S., including sedans, SUVs, and pickup trucks.

There was only 1 model in 2010.
Benefits to Individuals
EVs offer numerous benefits to individual vehicle owners.

Lower ownership costs
Accessible fueling infrastructure
Expanding vehicle options
Increased resilience

EVs with bidirectional chargers can serve as a backup power source in place of diesel generators during extreme weather events.
Benefits to Communities

EVs – and the charging infrastructure that supports them – offer benefits to rural communities.

- Economic development
- Improved public health
- Lower greenhouse gas emissions

Community members and regional travelers can visit local stores, restaurants, and other attractions while charging their EVs.
Benefits to Communities

EVs – and the charging infrastructure that supports them – offer benefits to rural communities.

Economic development
Improved public health
Lower greenhouse gas emissions

Battery-electric vehicles produce

- No tailpipe emissions and
- Less brake dust pollution

compared to conventional vehicles.
Benefits to Communities

EVs – and the charging infrastructure that supports them – offer benefits to rural communities.

- **Economic development**
- **Improved public health**
- **Lower greenhouse gas emissions**

EVs produce *lower GHG emissions* than conventional vehicles, especially when electricity is generated with renewable sources.
Challenges and Evolving Solutions

Rural areas face some important barriers in deploying EVs and EV infrastructure.

- **High upfront costs**
- Longer distances between sites
- Potential need for grid upgrades
- Low awareness

Though continuing to decrease, the upfront costs of both EVs and EV charging infrastructure pose a barrier to EV uptake.
Challenges and Evolving Solutions

Rural areas face some important barriers in deploying EVs and EV infrastructure.

- **High upfront costs**
- **Longer distances between sites**
- **Potential need for grid upgrades**
- **Low awareness**

There is a growing need for an expanded DC fast charging network, especially for rural drivers who may travel long distances.
Challenges and Evolving Solutions

Rural areas face some important barriers in deploying EVs and EV infrastructure.

- High upfront costs
- Longer distances between sites
- Potential need for grid upgrades
- Low awareness

Costly electrical upgrades and peak pricing for electricity can hurt the business case for deploying fast-charging EV infrastructure.
Challenges and Evolving Solutions

Rural areas face some important barriers in deploying EVs and EV infrastructure.

- **High upfront costs**
- **Longer distances between sites**
- **Potential need for grid upgrades**
- **Low awareness**

**Rural communities** typically have had less exposure to EV technology than urban communities.

**Project developers** must navigate a potentially unfamiliar permitting and siting process.
Partnership
Opportunities
Partnership Opportunities

Diverse partnerships can support rural entities in planning, funding, and implementing EV infrastructure projects.

- **Statewide, multistate, and tribal partners**
- **Local and regional planning partners**
- **Electric utilities**
- **Charging networks**
- **Site hosts**

**EV corridor planners** (e.g., for FHWA’s Alternative Fuel Corridors)

**State agencies** for transportation (DOTs), energy, and environment

**Multistate initiatives** for EVs, air quality, and climate (e.g., REV West, Transportation and Climate Initiative, Northeast Electric Vehicle Network)
FHWA’s Alternative Fuel Corridors

FHWA works with other federal, state, and local officials and with private industry to facilitate an interstate network of electric and other alternative fuel stations along major U.S. roads.

www.fhwa.dot.gov/environment/alternative_fuel_corridors/
Partnership Opportunities

Diverse partnerships can support rural entities in planning, funding, and implementing EV infrastructure projects.

DOE’s Clean Cities coalitions
Regional planning agencies, including Regional Transportation Planning Organizations (RTPOs), regional planning councils, and local governments

Statewide, multistate, and tribal partners
Local and regional planning partners
Electric utilities
Charging networks
Site hosts
DOE’s Clean Cities Coalitions

More than 75 coalitions nationwide bring together local stakeholders to advance alternative fuels through public-private partnerships.

Map of Clean Cities Coalitions locations (source: DOE, 2021)

cleancities.energy.gov/
Partnership Opportunities

Diverse partnerships can support rural entities in planning, funding, and implementing EV infrastructure projects.

- **Statewide, multistate, and tribal partners**
- **Local and regional planning partners**
- **Electric utilities**
- **Charging networks**
- **Site hosts**

Electric utilities provide technical advice and can assist in project planning, including by

- addressing grid-level constraints,
- explaining electricity pricing, and
- identifying sources of financial support.

Electric utilities also often **take ownership** of aspects of an EVSE installation.
Partnership Opportunities

Diverse partnerships can support rural entities in planning, funding, and implementing EV infrastructure projects.

Statewide, multistate, and tribal partners

Local and regional planning partners

Electric utilities

Charging networks

Charging network companies are experts in charger technologies and can provide resources on EVSE installation and operation (e.g., payment, access control).

Many public charging stations are owned or operated by these companies.
Partnership Opportunities

Diverse partnerships can support rural entities in planning, funding, and implementing EV infrastructure projects.

Statewide, multistate, and tribal partners

Local and regional planning partners

Electric utilities

Charging networks

Site hosts

Tourist destinations and public lands

Businesses and institutions (e.g., hotels, shops, restaurants, universities)

Transportation facilities (e.g., airports, fleet depots)

Community sites (e.g., public library, town hall)

Other sites that provide EV charging stations
Success Story: Charging at West Virginia State Parks

State parks in West Virginia attract visitors, shoppers, and diners through complimentary EV charging.

SUCCESS STORY: CHARGING AT STATE PARK LODGES IN WEST VIRGINIA

In West Virginia, EV charging stations are available at 9 of the 10 State park lodges in the State. Drivers can charge their vehicles for free, but lodge owners noted that while people are charging their vehicles they spend money at the lodges, including in gift shops and restaurants and for overnight stays.
Infrastructure Planning
Guiding Principles for Planning

Guiding principles help rural stakeholders find their own path through the EV infrastructure planning process.

- **There is no one-size-fits all approach**, especially in rural areas where demand and infrastructure readiness greatly varies.
- **Different aspects of planning may occur in parallel** to allow planners and stakeholders to revisit and revise earlier steps of the process.
- **Coordinate early and often** with partners to access the most relevant information and up-to-date technical support through a project’s life.
- **Stakeholders may have different needs and perspectives.** Engage rural community members in the planning process to understand and address their needs and concerns.
- **Build for flexibility** by planning now for future charging needs to prevent costly upgrades down the road.
Types of EVSE Planning

The toolkit defines and provides resources for three types of EV infrastructure planning.

Corridor-level planning supports infrastructure **along roads and highways** to facilitate inter-regional travel.
Types of EVSE Planning

The toolkit defines and provides resources for three types of EV infrastructure planning.

**Corridor-level planning**

**Community-level planning**

Community-level planning considers infrastructure solutions to address the needs of a particular region or town.

**Site-level planning**
Types of EVSE Planning

The toolkit defines and provides resources for three types of EV infrastructure planning.

Corridor-level planning

Community-level planning

Site-level planning

Site-level planning focuses on the installation of EVSE at a specific site.
# Project Planning Checklist

The toolkit walks through a planning checklist for EVSE projects and provides technical guidance.

## Project Development and Scoping
- Establish overall project scale
- Determine site and installation type
- Identify project partners
- Decide on ownership model
- Assess EV charging needs
- Identify needs for permitting and regulatory compliance

## Utility Planning
- Assess local grid infrastructure
- Determine electricity rates and pricing structures

## Installation Planning
- Determine procurement process
- Determine network connection needs
- Select equipment and network provider
- Assess installation needs and costs

## Operational Planning
- Assess operations and maintenance costs
- Determine pricing, payment, and access
- Consider additional needs

### Iterative Process
Revisit and Refine Prior Steps as Needed
Project Planning Checklist (Examples)

The toolkit walks through a planning checklist for EVSE projects and provides technical guidance.

- **Decide on an ownership model**
  - Various approaches to ownership of EVSE and related site-wiring (adapted from AVISTA, 2020).

- **Assess installation needs and costs**
  - Charger selection decision tree (adapted from plugincars.com, 2014).
Success Story: Free Public Charging in Colorado

Since 2013, the Colorado Energy Office and Regional Air Quality Council have supported the installation of more than 1,000 charging stations through the Charge Ahead Colorado grant program.

SUCCESS STORY: PROVIDING FREE PUBLIC CHARGING IN COLORADO

In 2013, the Town of Carbondale installed its first Level 2 charging station along parking spaces in front of the town hall. The project cost $6,050, of which more than $4,800 was reimbursed through grant funding. The town decided to initially provide free charging services, since enabling payment capabilities would cost more than just paying for the electricity while use was low. Since then, Carbondale has expanded to 16 charging stations, of which 15 are free Level 2 charging stations.

Cars waiting to charge at the Carbondale Town Hall EV Charging Station
(Source: John Colson, Post Independent, 2013)
Equity Considerations in Planning

An equitable planning process helps ensure that a project’s benefits and costs are fairly distributed throughout the community.

Affordability
Reliability
Safety
Geographic coverage
Accessibility
At-home charging capabilities
Investment opportunities
Employment opportunities
Equity Considerations in Planning

An equitable planning process helps ensure that a project’s benefits and costs are fairly distributed throughout the community.

### Equitable Planning

#### Engage
- Stakeholder interviews
- Needs assessments
- Public comment sessions
- Virtual public involvement
- Ongoing communication

#### Analyze
- Socioeconomic data
- Equity-related metrics

### Interactive Maps and Tools
- FHWA’s HEPGIS Website
- EPA’s Environmental Justice Screening and Mapping Tool (EJSCREEN)
- DOE’s Low-Income Energy Affordability (LEAD) Tool
Tools and Resources

The toolkit includes a compilation of planning tools, including calculators, maps, templates, and guidance documents.
Funding and Financing
### Program Types and Eligibilities

Diverse federal programs serve a range of applicant and EV activity types.

<table>
<thead>
<tr>
<th>Federal Agencies</th>
<th>Program Types</th>
<th>Applicant Types</th>
<th>EV Activity</th>
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<tr>
<td>U.S. Department of Transportation (USDOT)</td>
<td>Discretionary Grant Funding Programs <em>(competitive selection)</em></td>
<td>States</td>
<td>Light-Duty Vehicle Charging</td>
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<tr>
<td>U.S. Department of Agriculture (USDA)</td>
<td>Formula Grant Funding Programs <em>(allocated funding)</em></td>
<td>Localities</td>
<td>Public Transportation Charging</td>
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<tr>
<td>Department of Energy (DOE)</td>
<td>Loan Financing Programs</td>
<td>Tribes</td>
<td>Commercial Charging</td>
</tr>
<tr>
<td>Environmental Protection Agency (EPA)</td>
<td>Tax Incentives</td>
<td>Transportation Providers</td>
<td>Infrastructure Planning</td>
</tr>
<tr>
<td>Small Business Administration (SBA)</td>
<td></td>
<td>Non-Profits</td>
<td>Workforce Development</td>
</tr>
<tr>
<td>Department of Commerce (DOC)</td>
<td></td>
<td>Private Sector</td>
<td>Vehicle Acquisition</td>
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<tr>
<td>Department of Labor (DOL)</td>
<td></td>
<td>Individuals</td>
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<tr>
<td>Internal Revenue Service (IRS)</td>
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</tbody>
</table>
Key Federal Programs

The toolkit highlights key federal programs and includes application tips, resources, and initial points of contact.

DEPARTMENT OF TRANSPORTATION
Federal Highway Administration (FHWA)
• Congestion Mitigation and Air Quality Improvement (CMAQ) program
• Federal Land Access Program (FLAP)
Federal Transit Administration (FTA)
• Grants for Buses and Bus Facilities Programs
Office of the Secretary of Transportation (OST)
• Rebuilding American Infrastructure with Sustainability and Equity (RAISE)

DEPARTMENT OF ENERGY
Vehicle Technologies Office
• Funding Opportunity Announcements (FOAs)
Weatherization and Intergovernmental Programs Office
• State Energy Program (SEP)
Loan Programs Office
• Title XVII Renewable Energy and Efficient Energy Projects

ENVIRONMENTAL PROTECTION AGENCY
• Diesel Emissions Reduction Act (DERA) Programs

INTERNAL REVENUE SERVICE
• Alternative Fuel Infrastructure Tax Credit

Bipartisan Infrastructure Law (BIL)
• National Electric Vehicle Infrastructure Formula Program ($5 billion)
• Discretionary Grant Program for Charging and Fueling Infrastructure ($2.5 billion)
Rural EV Infrastructure Funding Matrix

The toolkit includes a comprehensive list of federal programs and eligibilities.

<table>
<thead>
<tr>
<th>Program Name</th>
<th>Program Description</th>
<th>Eligible Parties</th>
<th>Non-Profit</th>
<th>Government</th>
<th>Tribal</th>
<th>Local</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY0206 EDA Public Works and Economic Adjustment Assistance Program Grant (Discretionary)</td>
<td>Provides investments that support construction, non-construction technical assistance, and involving loan fund projects designed to leverage existing regional assets and support the implementation of economic development strategies that advance new ideas and creative approaches to advance economic prospects in distressed communities.</td>
<td>State, Tribes, Localities, Non-profits</td>
<td>✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️</td>
<td>✔️ ✔️</td>
<td>✔️ ✔️</td>
</tr>
<tr>
<td>Build to Scale Program Grant</td>
<td>Provides funds for organizations to aid companies in developing the next generation of tech-based economic development initiatives, including commercial EV technology implementation.</td>
<td>State, Tribes, Localities, Non-profits</td>
<td>✔️ ✔️ ✔️</td>
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</table>
Success Story: Charging Electric Buses in Michigan

Through FTA’s Low-No Emission Program, Michigan DOT was awarded funding to build a transit facility that can charge Thumb Area Transit’s new battery-electric bus fleet.

SUCCESS STORY: LOW-NO BUS DISCRETIONARY PROGRAM

In 2021, the Michigan Department of Transportation received $5.2 million on behalf of Thumb Area Transit (TAT) in rural Huron County to replace an undersized, aging transit facility with a centrally located LEED-certified maintenance, operations, and administrative center to improve transit services and maintain its new battery-electric bus fleet. The facility will include electric bus charging equipment and other infrastructure to allow TAT to provide reliable transportation across its 836-squaremile service area while improving air quality.

Source: FTA, 2021
Funding Programs Points of Contact
The toolkit highlights points of contact to learn more about particular funding programs.

US DOT Programs

USDA Programs

DOE Programs

EPA Programs

IRS Programs

POINTS OF CONTACT
Staff in the agency field offices are available to answer program questions:

- FHWA Field Offices
- FTA Regional Offices
- USDA Rural Development State Offices
- DOE Vehicle Integration Office / Technology Integration Regional Manager Contacts
- DOE Clean Cities Coalition Contacts
- EPA Regional Offices
Additional Funding Resources

Several resources can help identify funding sources administered by States, local governments, and utilities.

Funding Resource Clearinghouses

- Alternative Fuels Data Center (AFDC)
- Clean Cities Coalitions
- Database of State Incentives for Renewables & Efficiency (DSIRE)

State-Level Funding Programs for EVSE

- State Energy Offices
- State Infrastructure Banks (SIBs)
- Volkswagen (VW) Settlement Funds
USDOT’s Rural EV Infrastructure Toolkit

**ROUTES:** [www.transportation.gov/rural](http://www.transportation.gov/rural)

**Toolkit:** [www.transportation.gov/rural/ev/toolkit](http://www.transportation.gov/rural/ev/toolkit)

**Feedback:** [www.transportation.gov/rural/ev/toolkit/feedback](http://www.transportation.gov/rural/ev/toolkit/feedback)

**Email:** rural@dot.gov
CLEAN TRANSPORTATION ACTION IN ATHENS COUNTY, OHIO

February 9, 2022 | USDOT Charging Forward Webinar

Sarah Conley-Ballew, MPA
Rural Action Sustainable Energy Solutions
Program Director
Nestled in the foothills of Appalachian Ohio, Rural Action was founded in 1991 on the principle that locally-based, sustainable, and inclusive development is the main strategy for building resilient rural Appalachian communities.

Rural Action’s mission is to build a more just economy by developing the region’s assets in environmentally, socially, and economically sustainable ways. Together, we envision a region with clean streams and healthy forests; a place where thriving family farms, meaningful livelihoods and vibrant communities exist for everyone; with people engaged as good stewards of the world they live in and working together to make this vision a reality.

As a membership-based organization, we believe the best development is done with participation from diverse groups who have a stake in the outcome.
ATHENS COUNTY
BY THE NUMBERS

• 2020 Population Census: 62,431
• 3-year average unemployment rate: 7.3%
• Per capita income: $22,040
• Median household income: $40,905
• Persons living in poverty: 22%

Source: U.S. Census Bureau
ATHENS COUNTY FACES HIGH TRANSPORTATION ENERGY BURDEN

According to a December 2020 Argonne National Laboratory study, Athens County has the highest transportation energy burden in Ohio.

AND YET:

Athens County has more EVSE charging infrastructure and significantly greater EV adoption than its other rural and Appalachian counterparts.

Athens County is 7th highest in Alternative Fuel Vehicle (AFV’s) registrations per capita in Ohio, out of 88 counties.

Source: Rural Electrification Report
WHY STUDY EV ADOPTION IN RURAL OHIO?

- Ohio is a microcosm of the U.S: all four seasons, varied terrain
- Leading research teams and facilities
- AV testing authorized on all public roadways
- Almost 20% of U.S population lives in rural areas
- 50% of roadway fatalities occur in rural areas

RURAL OPEN ACCESS DEVELOPMENT MOBILITY ACTION PLAN (R.O.A.D.M.A.P.)
Pilot Demonstration Sites
CITY OF ATHENS SUSTAINABILITY STRATEGY

- Athens Sustainability Action Plan
- Sustainable Ohio Public Energy Council
- Athens Public Solar Fund
- Climate Emergency Declaration
- L2 & DC Fast Charge Station
- 2.9 MW Planned/Installed Solar Capacity
- SolSmart Bronze Community
Partnerships are Key to Rural Electrification
LAYING THE GROUNDWORK FOR EV ADOPTION

The Ohio University Credit Union’s Hybrid and EV Loan Program (2016-2017) was an innovative financing program that provided OUCU members access to 0% interest loans for alternative fuel vehicles.

71 auto loans were originated in Athens County, generating $99,079 in sales tax revenue in 2017.
The EV Cruisers Club for electric vehicle owners was established in 2016 to provide peer-to-peer networking and education about EV ownership to the community.
27 EV PORTS IN ATHENS COUNTY (AND COUNTING!)
FREE EV FLEET ANALYSIS

1.) Gather Data on Fleet Operations
2.) Establish Fleet KPIs & Goals
3.) Evaluate Available Options
4.) Provide Decision Making Tools
5.) Strategic Plan & Recommendations
Athens Public Transit’s First EV SHUTTLE LAUNCHES MAY 2022
AUTONOMOUS VEHICLE FEASIBILITY STUDY

+ ~28 MILE TEST ROUTE IN ATHENS COUNTY
+ EXAMINING OBSTACLES IN RURAL INFRASTRUCTURE FOR AUTOMATED VEHICLE TECHNOLOGY
+ FOUR ITERATIONS ON-SITE RURAL ROUTE TESTING, ALL SEASONS
+ CONTROLLED ENVIRONMENT TESTING
PIONEERING POLICE DEPARTMENT:
City of Logan, Ohio

• First fully outfitted Tesla police cruiser in the world
• Over $6,000/year in savings per cruiser
• City of Logan will save $1.75M over 30 years as it transitions to an all-electric fleet
MORE PROJECTS ON THE HORIZON

• Dealership engagement to bring PHEV/EV models to rural showrooms
• Workforce training and skill development in advanced vehicle technologies
• EVSE Siting in rural communities beyond highway corridors
• Transportation Service Provider (TSP) fleet analysis and education
Upcoming FHWA Activities
Questions

** ROUTES:** [www.transportation.gov/rural](http://www.transportation.gov/rural)

** Toolkit:** [www.transportation.gov/rural/ev/toolkit](http://www.transportation.gov/rural/ev/toolkit)

** Feedback:** [www.transportation.gov/rural/ev/toolkit/feedback](http://www.transportation.gov/rural/ev/toolkit/feedback)

** Email:** rural@dot.gov