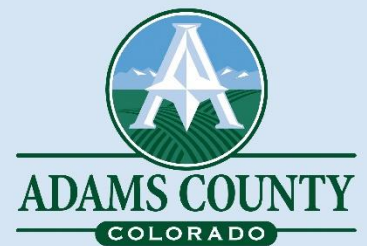




# Electric Vehicle Readiness Plan

December 2023



# TABLE OF CONTENTS

Table of Contents.....	1
Table of Figures .....	3
Table of Tables .....	4
Glossary of Terms.....	5
Executive Summary .....	7
Chapter 1 Plan Context.....	8
Supporting Adams County’s Vision of Innovation and Inclusion.....	8
Defining Electric Vehicles .....	9
Benefits of Electric Vehicles .....	10
Why Are We Planning for EVs Now? .....	13
Chapter 2 Public Charging .....	16
Connection to Sustainable Adams County 2030.....	16
Key Context.....	17
Public Charging Objectives.....	19
Work Plan.....	20
Roles and Responsibilities.....	22
Resources Available to Support Implementation .....	24
Chapter 3 Community Engagement .....	25
Connection to Sustainable Adams County 2030.....	25
Key Context.....	26
Community Engagement Objectives.....	27
Work Plan.....	28
Roles and Responsibilities.....	30
Resources Available to Support Implementation .....	31
Chapter 4 Adams County Fleet .....	32
Connection to Sustainable Adams County 2030.....	32
Key Context.....	33
Adams County Fleet Electrification Objectives.....	38
Roles and Responsibilities.....	40
Resources Available to Support Implementation .....	41
Chapter 5 Implementation .....	42
Short-term Implementation Timeline .....	42
Living Plan.....	43

EV-Readiness Team Coordination .....	1
Appendix A: Planning Process .....	1
Project Management Team .....	1
Focus Groups.....	1
Project Timeline.....	2
Appendix B: Adams County Electric Vehicle (EV) Infrastructure Siting/ Outreach Map Guide ....	3
Purpose of Map and Siting Prioritization .....	3
1. Siting Public Charging Stations in Unincorporated Adams County.....	3
2. Identify Target Populations for Outreach .....	7
Appendix C: Engagement Plan .....	1
Engagement Plan by Target Audience .....	1
Outreach Channel Summary Template.....	7
Sample EV Webpage Outline .....	10
Appendix D: Fleet Details.....	11
Analysis Methodology.....	11
Fleet Baseline.....	12
Fleet Electrification Work Plan Details .....	18
Appendix E: Measuring Progress .....	36
Strategy Progress Reporting .....	36
Target Tracking .....	38
Appendix F: Works Cited .....	39

# TABLE OF FIGURES

Figure 1. Battery Electric Vehicle and a Plug-In Hybrid Electric Vehicle Diagram (U.S. Department of Energy, n.d.) .....10

Figure 2. Lifetime Greenhouse Gas Emissions of a Small SUV (U.S. Department of Energy, Vehicle Technologies Office, 2023).....11

Figure 3. Distribution of PM 2.5 Pollution Across Adams County and Surrounding Area .....12

Figure 4. Average Retail Fuel Prices in the United States 2011-2022 (Alternative Fuels Data Center, 2023) .....13

Figure 5. Quarterly Alternative Powertrain Market Share in Colorado Q1 2019-Q3 2023 (Colorado Auto Dealers Association, 2023).....14

Figure 6. Existing Public Level 2 and DC Fast Charging in Adams County as of October 2023 17

Figure 7. Adams County Public Charging Objectives .....20

Figure 8. Adams County Electric Vehicle Community Engagement Objectives .....27

Figure 9: Target Stakeholder Group by Community Engagement Objective.....28

Figure 10. Mileage and Age of Fleet Vehicles by County Department.....34

Figure 11. Adams County Fleet Transition Pathways .....36

Figure 12. Adams County Fleet Alternative Replacement Schedule: Linear Approach.....37

Figure 13. Adams County Fleet Alternative Replacement Schedule: Exponential Approach .....37

Figure 14. Adams County Fleet Electrification Objectives .....38

Figure 15. Existing Vehicle Replacement Plan by Body Classification for Non-Sheriff’s Department and Non-Residence-Based Vehicles .....19

Figure 16. Proposed Replacement Plan by Body Classification for Non-Sheriff’s Department and Non-Residence-Based Vehicles, Placing Earlier Emphasis on Vehicles with More Market Availability.....20

Figure 17. Proposed Replacement Plan by Body Classification for Non-Sheriff’s Department and Non-Residence-Based Vehicles to Meet 2030 Goal.....20

Figure 18. Proposed Replacement Plan by Body Classification for Non-Sheriff’s Department and Non-Residence-Based Vehicles to Meet 2030 Goal.....21

# TABLE OF TABLES

Table 1: Summary of Transportation Linkages to the Sustainable Adams County 2023 Plan.....	9
Table 2. Adams County's Public Charging Needs by 2030.....	18
Table 3: Barriers and Opportunities of Public Charging.....	19
Table 4. Public Charging Roles and Responsibilities .....	23
Table 5. Public Charging Resources .....	24
Table 6: Barriers and Opportunities of Community Engagement.....	26
Table 7. Community Engagement Roles and Responsibilities.....	30
Table 8. Community Engagement Resources .....	31
Table 9: Barriers and Opportunities of Fleet Electrification .....	35
<i>Table 10. Fleet Electrification Roles and Responsibilities.....</i>	<i>40</i>
Table 11: Resources to Support Implementation.....	41
Table 12: Implementation Timeline .....	42
Table 13: Outreach Channel Summary Table .....	7
Table 14. Adams County Fleet Vehicles by Department .....	12
Table 15. Adams County Fleet Vehicles by Site.....	13
Table 16: Adams County Vehicle Site Location by Department Matrix .....	13
Table 17. 2023 Fleet Inventory by Body Classification, Excluding Sheriff’s Department and Residence-Based Vehicles .....	15
Table 18. Body Class by Department, Excluding Sheriff, and Residence-Based Vehicles .....	15
Table 19. Body Class by Site, Excluding Sheriff, and Residence-Based Vehicles.....	16
Table 20. Count of Vehicles by Body Class and Year in Existing Replacement Plan, Excluding Sheriff’s Department and Residence-Based Vehicles .....	18
Table 21. Eligible For Replacement – Not in Current Plan .....	22
Table 22. Alternate Replacement Candidates for 2024, Excluding Sheriff Department Vehicles and Residence-Based Vehicles .....	28
Table 23. Alternate Replacement Candidates for 2025, Excluding Sheriff Vehicles and Residence-Based Vehicles .....	28
Table 24. Alternate Replacement Candidates for 2026, Excluding Sheriff Vehicles and Residence-Based Vehicles .....	29
Table 25. Alternate Replacement Candidates for 2027, Excluding Sheriff Vehicles and Residence-Based Vehicles .....	29
Table 26. Alternate Replacement Candidates for 2028, Excluding Sheriff Vehicles and Residence-Based Vehicles .....	30
Table 27. Alternate Replacement Candidates for 2029, Excluding Sheriff Vehicles and Residence-Based Vehicles .....	31
Table 28. Alternate Replacement Candidates for 2030, Excluding Sheriff Vehicles and Residence-Based Vehicles .....	31
Table 29. Location and Number of Vehicles Identified in the Alternative Replacement Plan to Transition to EVs.....	33

# GLOSSARY OF TERMS

**Battery Electric Vehicle (BEV):** An all-electric vehicle, fueled by plugging into an external charger, that has no tailpipe emissions. Requires low maintenance costs.

**Direct Current (DC):** The form of electricity where the current only flows in one direction. This is the type of electricity that batteries supply and require to charge. EV chargers must convert the supplied AC electricity to DC power.

**DC Fast Charging Station:** Uses an industrial 480-volt DC outlet and can charge a battery to 80 percent in 20 to 30 minutes; used in commercial settings where the anticipated charge time is limited (e.g., supermarket, gas station, etc.); will be used on Alternative Fuel Corridors – a national network of major thoroughfares supporting EVs and other alternative fuels.

**Domiciled:** The location where a vehicle is based or parked usually when not actively in use.

**Electric Vehicle (EV):** A vehicle that uses an electric engine for all or part of its propulsion.

**EV-Ready Codes:** Local government codes that require installation of a 40-amp, 208/240-volt dedicated branch circuit (similar to electric dryer or oven) and a circuit terminating in a receptacle, junction box, or EV charging station at certain parking facilities (Southwest Energy Efficiency Project, 2023).

**Electric Vehicle Supply Equipment (EVSE):** Infrastructure required to support EVs such as chargers, electrical supplies, etc.

**Fleet Electrification:** Replacing internal combustion engine vehicles with equivalent electric vehicles in a public or business fleet.

**Greenhouse Gases (GHG):** Gases in the atmosphere that absorb and emit radiation and significantly contribute to climate change. The primary greenhouse gases in the earth's atmosphere are water vapor, carbon dioxide, methane, nitrous oxide, and ozone.

**Heavy-Duty Vehicles:** Commercial vehicles over a minimum Gross Vehicle Weight Rating (GVRW) of 8,500 lbs.

**Internal Combustion Engine (ICE):** Traditional vehicle engine that uses the direct combustion of gasoline, diesel, or other fuels.

**Kilowatt-hour (kWh):** The amount of electricity being sent to the EV battery from the charger in one hour. This is calculated by volts times amps divided by 1,000.

**Level 1 Charging Station:** Uses a standard 120-volt AC outlet and can take 8 to 12 hours to fully charge a depleted battery; intended for residential use only.

**Level 2 Charging Station:** Uses a 220-volt or 240-volt AC outlet and can fully charge a depleted battery in 4 to 6 hours; can be used in both residential and commercial settings.

**Light-Duty Vehicles:** Passenger cars with a maximum Gross Vehicle Weight Rating (GVRW) of 8,500 lbs.

**Plug-in Hybrid Electric Vehicle (PHEV):** Contains both an electric motor and a gasoline engine. An external plug is used to fuel the electric motor. The electric motor is used until the battery is depleted; at this point the gasoline engine takes over. Lower tailpipe emissions than traditional ICE and longer ranges than most BEVs.

**Range Anxiety:** Fear of running out of power in an EV before reaching a charging station or desired destination.

**Range Per Hour (RPH):** A measurement of the miles an EV can travel with one hour of charge. This is generally applied to EV charging stations and expressed in terms of typical EV efficiency.

**Residence-Based Vehicle:** A vehicle that is taken home by the driver at the end of the shift. The vehicle is not domiciled at a County facility and therefore not able to be charged off shift at a County facility. Recharging the vehicle would require the driver to charge the vehicle offsite.


**Vehicle Miles Traveled (VMT):** A way of measuring integration of EVs and associated reduction in GHG emissions by considering electric miles that replace traditional vehicle miles.

**Volts:** A measurement of the force pushing the flow of energy through a charger. This measurement is determined by electricity supply. Standard household outlets provide 120 volts; outlets for dryers or other high-powered household equipment supply 240 volts.

# EXECUTIVE SUMMARY

Adams County has a vision to be the *most innovative and inclusive county in America for all families and businesses*. In 2021, the County updated the [Sustainable Adams County 2030 plan](#). Transportation

is one of the plan's eight topic areas. The goals, strategies, and metrics in the transportation chapter of *Sustainable Adams County 2030* focus on reducing greenhouse gas emissions and improving mobility options for all community members by encouraging a shift away from single occupancy vehicles, and a shift toward vehicle electrification. This plan serves as a roadmap for advancing vehicle electrification across the community and within County operations.



Look for purple call out boxes to find references to the Sustainable Adams County 2030 Plan!

## Focus Areas

This plan provides a strategic framework to help the County achieve these goals and strategies across three core focus areas:

### PUBLIC CHARGING

Address infrastructure gaps through both public and private investment, with a focus on addressing market demand and removing barriers for lower-income, rental, and multifamily communities. Appendix B provides supplemental information about infrastructure siting tools.

### COMMUNITY ENGAGEMENT

Connect community members with information about the dynamic funding opportunities available to lower the initial cost of electric vehicles and electric vehicles charging infrastructure. Appendix C contains a detailed community engagement plan.

### ADAMS COUNTY FLEET

Electrify Adams County's fleet in a manner that is fiscally responsible by leveraging federal, state, and utility funding opportunities. Appendix D contains the details of the County's fleet analysis.

## How to Navigate this Plan

Each of these core strategies includes the following:

- ✓ Summary of relevant connections to the sustainability plan
- ✓ Key context
- ✓ Proposed work plan
- ✓ Proposed roles and responsibilities
- ✓ Resources available to support implementation

Following these, the Implementation chapter presents a suggested timeline to help guide implementation and coordination efforts across the core focus areas. Appendix E provides details to support the tracking and reporting of these efforts in alignment with the Sustainable Adams 2030 annual report process.

Implementation of the work plans identified within will prepare Adams County for increased EV adoption. The County is poised to identify and prioritize locations and funding for electric vehicle (EV) charging stations, educate residents about EVs, and take steps to electrify the County fleet.








## CHAPTER 1 PLAN CONTEXT

### Supporting Adams County's Vision of Innovation and Inclusion

Adams County has a vision to be **the most innovative and inclusive county in America for all families and businesses**. Integrating sustainability into County operations and services is crucial to achieving this vision. In 2021, the County updated the [Sustainable Adams County 2030 plan](#). The updated plan addresses a wide range of sustainability issues, including air quality, greenhouse gas (GHG) emissions, and the efficient use of natural resources. Equity, environmental justice, and resiliency are elevated as important cross cutting themes. The plan includes 90 strategies and more than 50 targets across 8 sustainability topics. The plan includes County-focused and community-focused goals, strategies, and targets. County-focused strategies are geared toward improving the sustainability of County facilities and operations. Community-oriented strategies are geared toward advancing sustainability for all Adams County community members, including both unincorporated and incorporated areas within the County – unless otherwise specified. Transportation is one of the plan's eight topic areas. The goals, strategies, and metrics in the transportation chapter of *Sustainable Adams County 2030* focus on reducing GHG emissions and improving mobility options for all community members by encouraging a shift away from single occupancy vehicles, and a shift toward vehicle electrification. This plan serves as a roadmap for advancing vehicle electrification across the community and within County operations. See **Table 1** for key linkages to the Sustainability Plan.

According to a 2019 inventory, 34% of community GHG emissions are from the transportation sector and an estimated 44% of County operations emissions are related to transportation.

Table 1: Summary of Transportation Linkages to the Sustainable Adams County 2023 Plan

 Sustainable Adams County 2030 Transportation Electrification Goals, Supporting Metrics, and Strategies
<p>This EV Readiness Plan seeks to address and advance the following strategies in <i>Sustainable Adams County 2030</i>. Goal 12 is focused on County operations and assets, while Goal 13 is focused on advancing electrification for community members within the County.</p> <p><b>Goal 12: Decrease County fleet emissions through vehicle and operational efficiency and fuel switching.</b></p> <ul style="list-style-type: none"><li>• Supporting Target: 75% of the County’s eligible light-duty fleet converted to electric</li><li>• Supporting Strategies<ul style="list-style-type: none"><li>○ Strategy 12.2 Develop and implement EV procurement plan</li></ul></li></ul> <p><b>Goal 13: Support EV mobility and infrastructure across all of Adams County.</b></p> <ul style="list-style-type: none"><li>• Supporting Target: 5% of all registered vehicles in Adams County are electric</li><li>• Supporting Strategies:<ul style="list-style-type: none"><li>○ Strategy 13.1 Prioritize locations for electric vehicle charging stations</li><li>○ Strategy 13.2 Leverage grant funding to implement prioritized investments in EV charging</li><li>○ Strategy 13.3 Develop and implement a countywide EV-readiness plan</li><li>○ Strategy 13.5 Implement electric vehicle education events for the community</li><li>○ Strategy 13.6 Partner with member communities to fund key fast-charging infrastructure</li></ul></li></ul>

## Defining Electric Vehicles

Plug-in electric vehicles are defined as vehicles that use an electric engine for all or part of their propulsion and utilize an external source of electricity to store electrical energy within its onboard rechargeable battery packs. There are two primary types of plug-in electric vehicles on the market today: full battery electric vehicles (BEVs) and plug-in hybrid electric vehicles (PHEVs).

As shown in Error! Reference source not found. Error! Reference source not found., BEVs are entirely propelled by an electric motor, and the only source of fuel is electricity and no tailpipe emissions. BEVs have an electric motor range approximately between 200-520 miles. PHEVs have a combination of both an electric motor and a gasoline engine and produce less tailpipe emissions than an internal combustion engine (ICE). PHEVs have an electric motor range of approximately 20-60 miles, and a gas engine range approximately 300-600 miles (U.S. Department of Transportation, 2023).

## Benefits of Electric Vehicles

Electric vehicles offer multiple benefits, including reduced GHG emissions, reduced air pollution, and lower operational costs.

## Electric Vehicles Produce Lower Lifetime GHG Emissions

Cradle-to-grave (i.e., lifetime) GHG emissions for a small electric SUV has 48% fewer GHG emissions than the same size gasoline SUV. Over the entire lifecycle, EVs have fewer GHG emissions than conventional gasoline or hybrid electric vehicles (Argonne National Laboratory, 2022). The analysis includes emissions related to raw material extraction, fuel production and transport as well as vehicle manufacturing, use, and end-of-life. The analysis did not include supporting infrastructure systems (e.g., refineries end-of-life or roads and bridges). **Figure 2** shows the emissions for each type of vehicle broken out by the categories of emissions. The study also provided emission estimates for technology anticipated to be available in 2030–2050.

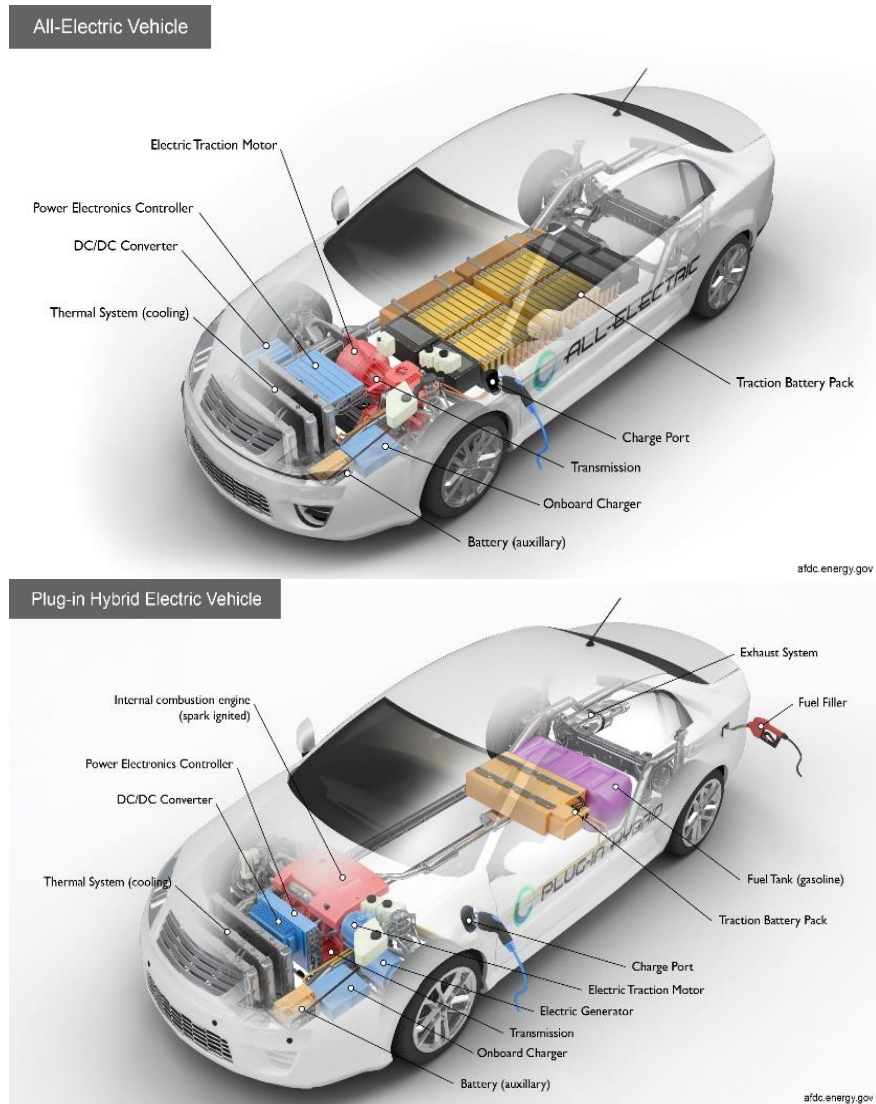


Figure 1. Battery Electric Vehicle and a Plug-In Hybrid Electric Vehicle Diagram (U.S. Department of Energy, n.d.)

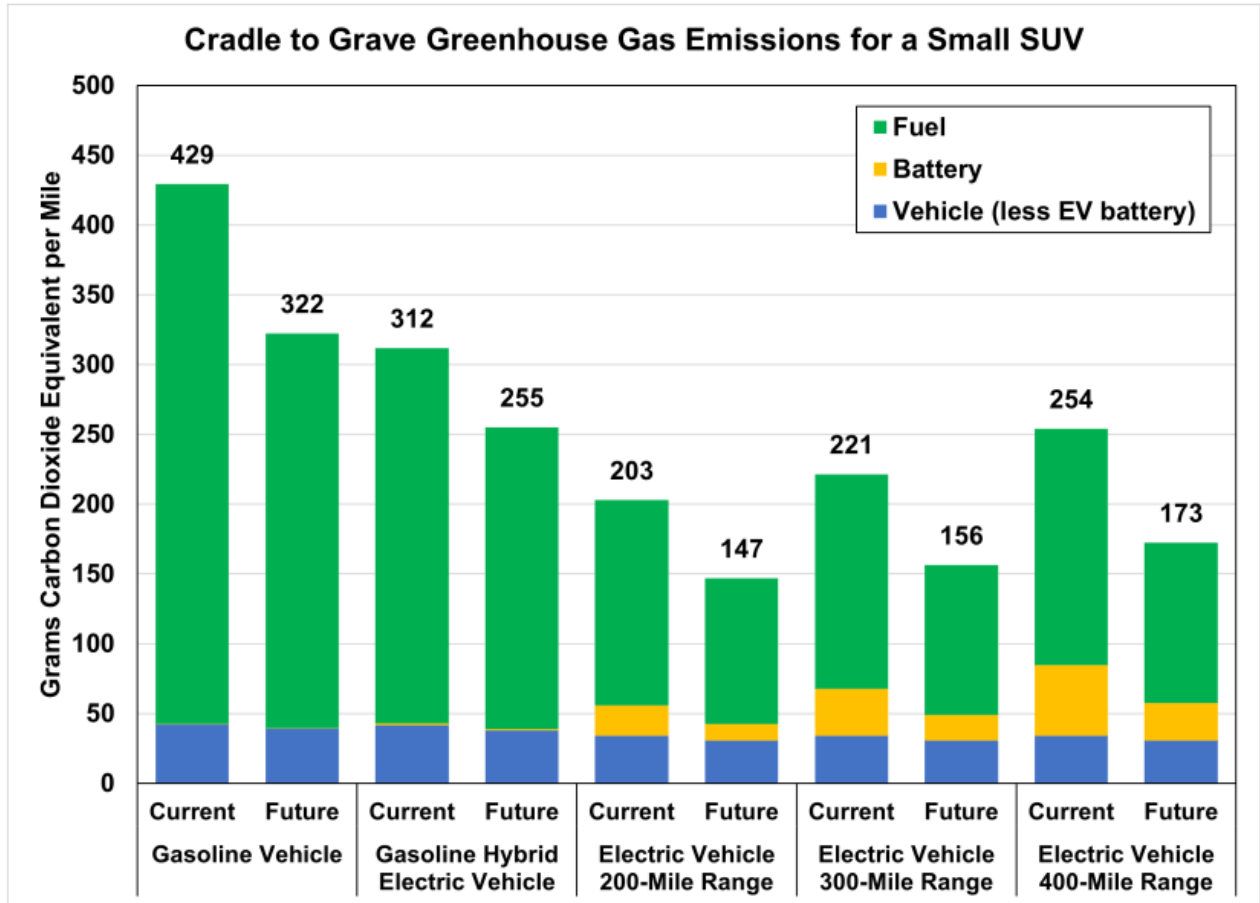
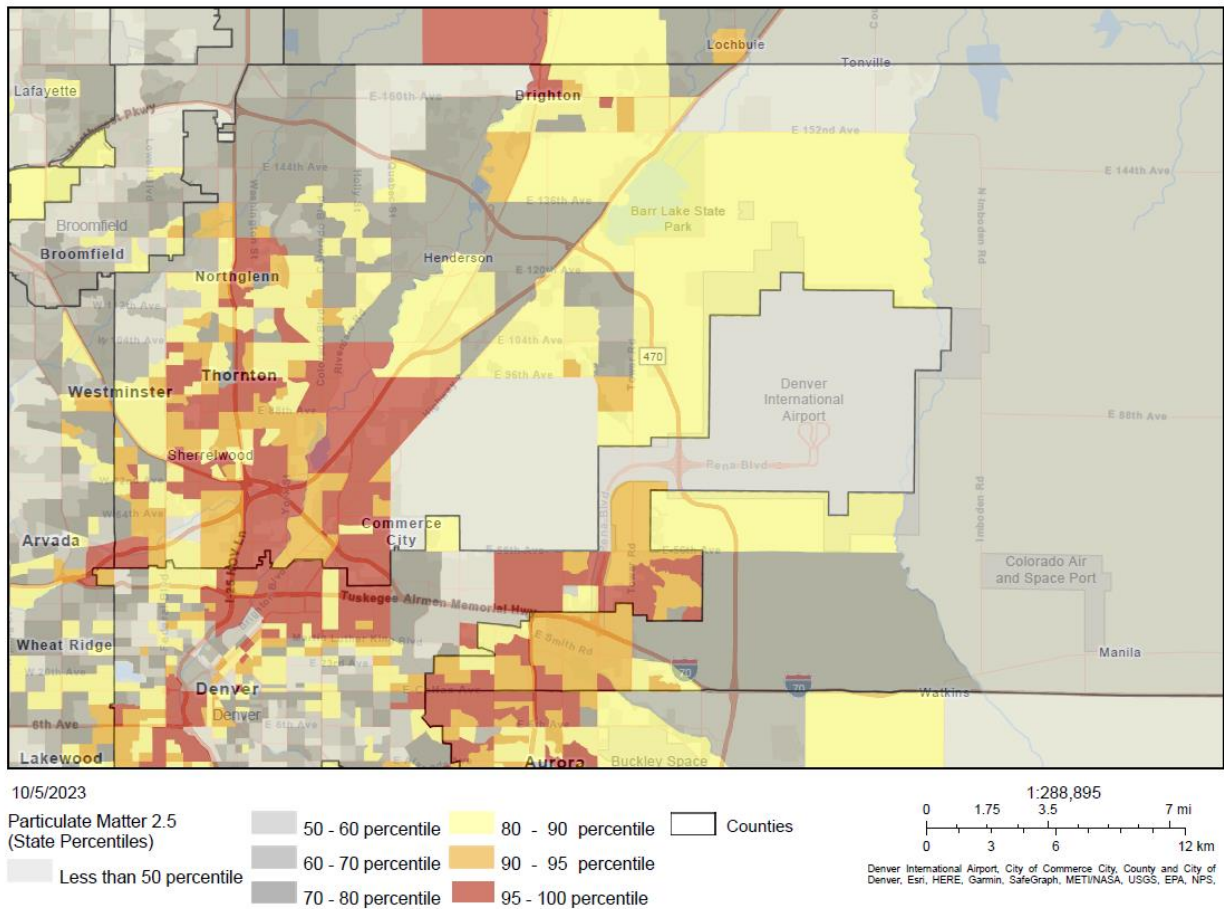


Figure 2. Lifetime Greenhouse Gas Emissions of a Small SUV (U.S. Department of Energy, Vehicle Technologies Office, 2023)

### Electric Vehicles Produce Fewer Tailpipe Pollutants

Compared to gas- and diesel-powered vehicles, EVs produce significantly fewer tailpipe pollutants like particulate matter (PM), volatile organic compounds, and ground-level ozone precursors. All these pollutants can have serious impacts on respiratory health, with worse impacts for those with pre-existing conditions like asthma. Error! Reference source not found. shows a higher proportion of PM 2.5 pollution correlated with proximity to major transportation routes, indicating the potential impact of reducing tailpipe pollutants on some of the major corridors in Adams County such as Interstates 25, 225, 70, 270, and 76.

## Adams County Particulate Matter 2.5 Percentiles



*Figure 3. Distribution of PM 2.5 Pollution Across Adams County and Surrounding Area*

## Electric Vehicles Are Up to 40% Less Expensive to Own and Operate

Electric vehicles, and BEVs in particular, benefit from lower operating costs. This is attributed to a 20-30% reduction in fuel costs and less preventative maintenance (e.g., oil and belt changes). Overall, BEVs are 40% less expensive to own and operate compared to gasoline-powered vehicles (Argonne National Laboratory, 2021). PHEVs may yield some of the fuel cost savings, but do not see the same maintenance benefits due to the presence of a gas- or diesel-powered motor.

In Adams County, the average household spends 19% of total average income on transportation costs (H+T, 2022). By comparison, the average U.S. household spends about 13% of annual income on transportation costs (Institute for Transportation And Development Policy, 2019). The operational savings of electric vehicles present an opportunity to reduce transportation costs for households in Adams County. Additionally, electricity prices have remained much more stable over the past decade when compared to gasoline and diesel (**Figure 4**). This can provide EV owners with a more predictable transportation cost over time.

## Electricity Prices Compared to Gasoline and Diesel

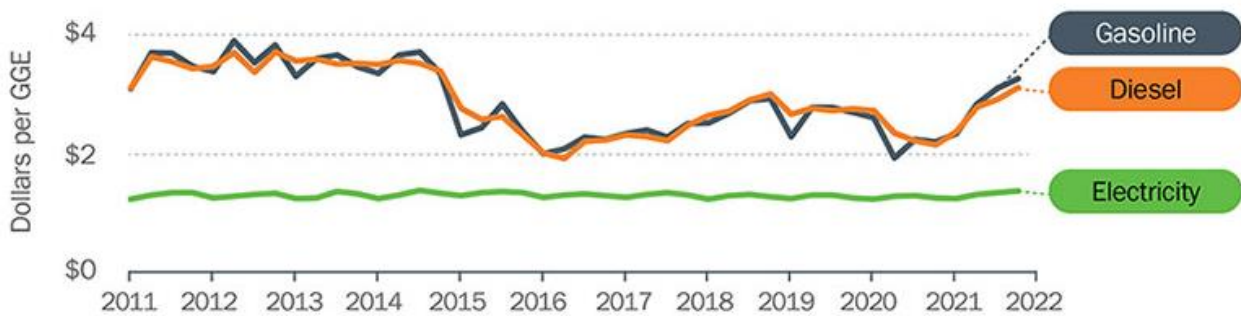


Figure 4. Average Retail Fuel Prices in the United States 2011-2022  
(Alternative Fuels Data Center, 2023)

## Why Are We Planning for EVs Now?

The transportation electrification landscape is rapidly changing as both technology and interest evolve and increase. It plays an important role in meeting sustainability goals. With more resources becoming available, local governments need to determine how to anticipate, encourage, and support these efforts.

### Electric Vehicle Adoption and Infrastructure are Increasing

EVs have been steadily growing as a percent of market share in recent years. In 2022, EVs accounted for 10.5% of Colorado's vehicle market. BEVs accounted for 8.1% while PHEVs accounted for the other 2.4%. As shown in **Figure 5**, BEV market share has increased steadily since 2020, while the PHEV market share has experienced slower growth. Automakers are making the switch to EVs and many automakers have made commitments to be electric-only by 2040 including Honda, Hyundai, and Toyota; General Motors is aiming for 2035.

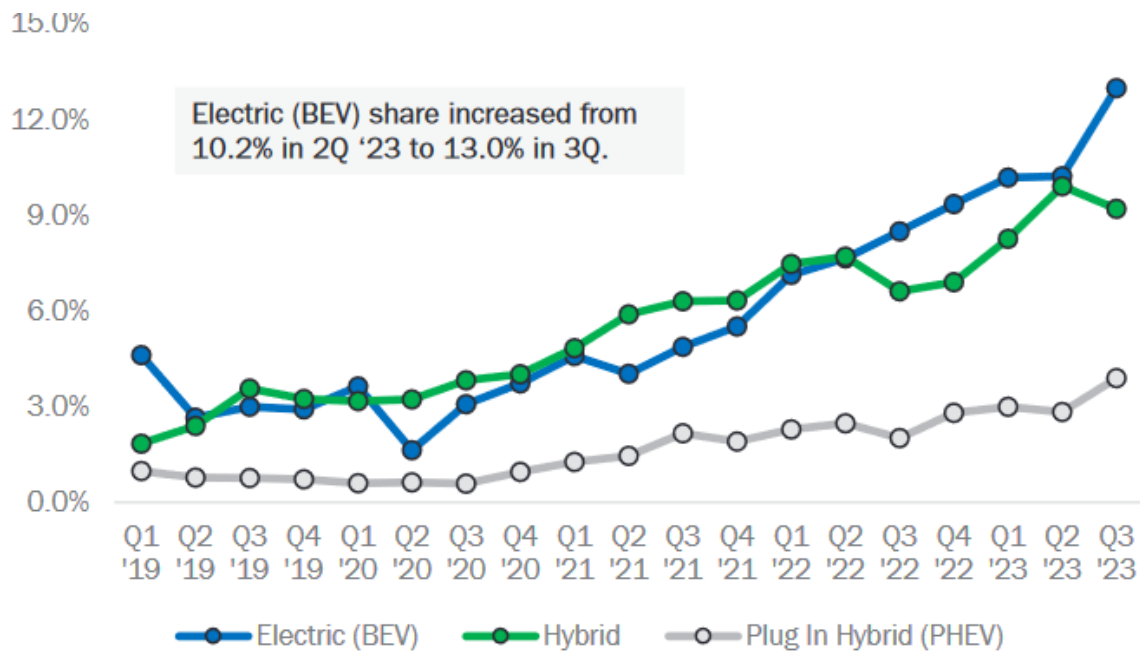


Figure 5. Quarterly Alternative Powertrain Market Share in Colorado Q1 2019-Q3 2023 (Colorado Auto Dealers Association, 2023)

The EV share of light-duty vehicles on the road is another way to measure EV adoption. As of November 2023, 1.0% of light duty vehicles on the road were EVs in Adams County. This tracks closely with the State of Colorado’s rate of 1.3% vehicles (Atlas Public Policy, 2023).

### Momentum in Statewide, Utility, and Federal EV Planning and Funding

In many ways, the State of Colorado is leading the way in the transportation electrification sector. The [Colorado EV Plan 2023](#) reinforced the State goal to reach 940,000 light-duty EVs on the road by 2030 and 2.1 million on the road by 2035. The State also released three Colorado 10-year enterprise plans to guide investment in [community access](#) to charging, [clean transit](#), and [clean fleet](#). In October 2023, the Air Quality Control Commission adopted the [Colorado Clean Cars standard](#) that requires EVs to make up 82% of new vehicle sales by 2032.

Along with these plans, strategies, and policies, the State has developed several incentive and funding programs, for both vehicle electrification and charging. Programs include tax incentives, rebates, and grant funding to support everything from the electrification of personal vehicles to full fleets, and to support the installation of at home, workplace, fleet, and community charging.

The State of Colorado is not alone in its investment in the EV sector. Electric utilities and the federal government have also developed incentive programs to support the advancement of both electric vehicles and charging infrastructure. Funding opportunities relevant to implementation of this readiness plan are identified in Chapter 2 Public Charging, Chapter 3 Community Engagement, and Chapter 4 Adams County Fleet.

### A Convergence of Opportunity Calls for a Strategic Approach

Adams County has already begun to pursue transportation electrification, both for County operations and at the community scale. In 2022, 1% of Adams County’s light duty fleet was

electrified. This closely mirrors the share of light-duty vehicles on the road across the county at 0.96% (Atlas Public Policy, 2023). Additionally, the County has already invested in public, workplace, and fleet charging. In 2022, there were 28 County-owned public charging plugs located across six different locations. In total, there were 230 public Level 2 charging plugs and 75 public DC fast charging plugs in Adams County (including incorporated municipalities within Adams County) in 2022.

While the County and community have capitalized on early electrification wins, the influx of funding and anticipated advancements in EV manufacturing indicate that EVs are likely to play a much larger role in Adams County's transportation landscape. Importantly, EV Readiness Plans are often a requirement for accessing federal funding.

Seizing opportunities and making substantial progress toward electrification goals will also require intentional and immediate action by the County. Slow vehicle turnover means that any ICE vehicle purchased today may still be on our roads 10 or more years from now. And, installing the infrastructure necessary for charging EVs may come with long lead-times, especially for public, workplace, or fleet charging equipment. This highlights the importance of long-range capacity planning and careful coordination with electric utility providers.

*Developing a strategic framework to guide community and County investment will help ensure this transition occurs in alignment with Adams County's vision of inclusion and innovation.*

This plan provides a strategic framework to help the County across three core focus areas:

1. **Public Charging (Chapter 2):** Address infrastructure gaps through both public and private investment, with a focus on addressing market demand and removing barriers for lower-income, rental, and multifamily communities. [Appendix B](#) provides supplemental information about infrastructure siting tools.
2. **Community Engagement (Chapter 3):** Connect community members with information about the dynamic funding opportunities available to lower the initial cost of electric vehicles and electric vehicles charging infrastructure. [Appendix C](#) contains a detailed community engagement plan.
3. **Adams County Fleet (Chapter 4):** Electrify Adams County's fleet in a manner that is fiscally responsible by leveraging federal, state, and utility funding opportunities. [Appendix D](#) contains the details of the County's fleet analysis.

Each of these core focus areas includes a summary of relevant connections to the sustainability plan, key context, a proposed work plan, roles and responsibilities, and resources available to support implementation.

Following these, **Chapter 5 Implementation** presents a suggested timeline to help guide implementation and coordination efforts across the core focus areas. [Appendix E](#) provides details to support the tracking and reporting of these efforts in alignment with the Sustainable Adams 2030 annual report process.





## CHAPTER 2 PUBLIC CHARGING



### Connection to Sustainable Adams County 2030

**Goal 13:** Support EV mobility and infrastructure across all of Adams County

**Key Metric:** Percent of registered vehicles that are electric in Adams County

- 2019 Baseline: 1%
- 2022 Progress: 1%
- 2030 Target: 5%

#### Key Strategies

<b>13.1</b>	Prioritize locations for electric vehicle charging stations
<b>13.2</b>	Leverage grant funding to implement prioritized investments in EV charging

#### Related Strategies

<b>13.3</b>	Develop and implement a countywide EV-readiness plan
<b>13.5</b>	Implement electric vehicle education events for the community
<b>13.6</b>	Partner with member communities to fund key fast-charging infrastructure

## Key Context

Most drivers will charge their plug-in EVs at home where vehicles are typically parked for longer periods of time and a consistent charging schedule can be established (U.S. Department of Energy, 2023). Home charging can consist of Level 1 or Level 2 charging equipment and many EVs come with a portable Level 1 cord set, so no additional charging equipment is needed. Level 1 is typically used when there is a 120-volt outlet available. It provides about 5 miles of charge an hour, so plugging in overnight can replenish about 40 miles of electric range.

Level 2 equipment provides charging through 240-volt electrical service. Many homes have or can easily upgrade to 240-volt service. With it, a typical EV can be charged overnight, so many EV drivers chose it for home charging. Level 2 charging is also commonly used for multifamily, workplace, and public destination charging.

Direct current fast charging (DCFC) enables rapid charging along travel corridors or public locations. DCFC provides about 100 to 200 plus miles per 30 minutes of charging and is ideal for replenishing range over short periods of time.

Public charging refers to chargers that are accessible by the public, either at no cost or for a small fee (typically an hourly rate). As shown in **Figure 6**, there are 230 publicly available Level 2 charging plugs and 75 public DC fast charging plugs in Adams County, including the incorporated municipalities within the County (U.S. Department of Energy, 2023). In unincorporated Adams County, there are 28 County-owned public plugs across seven locations, with an additional eight plugs currently planned. Figure 6 shows more charging located in more densely populated communities, though there are still gaps within these areas where the market may lag in historically underserved communities (e.g., rural and remote areas, multi-family developments, renters). There is need for additional public chargers in higher density residential areas and retail areas to support EV drivers who may not have access to home charging. In the eastern rural portion of the County, filling the charging gap will need to focus on travel corridors and community destinations such as libraries, community centers, parks, event venues, places of worship, and other locations where community members congregate.

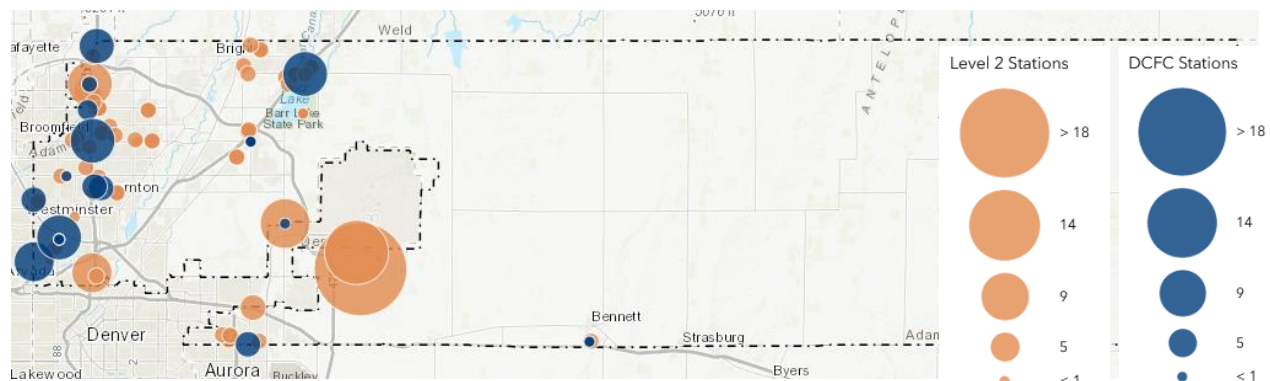


Figure 6. Existing Public Level 2 and DC Fast Charging in Adams County as of October 2023

More public EV charging infrastructure is needed to support EVs. According to a 2021 study completed by the International Council on Clean Transportation (ICCT) for the Colorado Energy Office, it is estimated that Adams County will need to significantly increase the number of available charging plugs to meet projected EV adoption by 2030 (International Council on Clean Transportation, 2021). The total number of plugs needed includes public Level 2 plugs as well as corridor- and non-corridor DCFC plugs (**Table 2**), but does not include home (single-family or multifamily residences), workplace, or fleet charging stations which are not listed as open to the public (Ibid).

*Table 2. Adams County's Public Charging Needs by 2030*

Year	Level 2 Plugs	DCFC Plugs	Total Plugs
2030	1,400	350	1,750

Though the vast majority of charging occurs at home, public charging can reduce range anxiety and can be especially critical for those who may face barriers to accessing or installing home charging. Public chargers offer an opportunity for both the public and private sectors to meet the growing demand for charging. Businesses and organizations may install chargers as an economic opportunity and to draw new and existing customers or provide charging as an added amenity. Local government may want to lead by example, seed the market, and fill gaps where the market may lag, to increase charging access to residents that face higher barriers to EV adoption.

Adams County has leveraged State funding to lead by example and provide charging at six County facilities<sup>1</sup>. The County has also prepared several sites for future installations when there is demand and funding is available. Adams County applied for funding through the Charge Ahead Colorado grant for seven additional stations at four locations. Furthermore, in June 2023, the County applied for federal funding through the Charging and Fueling Infrastructure Discretionary Grant Program to install DC fast charging at the Colorado Air and Spaceport. Adams County is actively planning and installing charging infrastructure to support and expand EV adoption across the County and greater Denver-Aurora metropolitan area.

Another potential strategy to address charging gaps is through EV-ready code updates. Preparing for or installing charging while construction is underway is much more cost effective than retrofitting after building is complete. The Colorado State Energy Code Board published the EV requirements as part of the final Model Electric Ready and Solar Ready Code<sup>2</sup>. Adams County is currently updating its Development Standards and Regulations and building code. *Sustainable Adams County 2030* recommends adopting EV-ready code standards as part of

<sup>1</sup> Current EV chargers are located at the Adams County Coroner Office, District Attorney Office, Sheriff's Detention Facility, Government Center, Human Services Center, and County Court.

<sup>2</sup> Building energy code legislation and the Model Electric Ready and Solar Ready Code is available from the Colorado Energy Office website, <https://energyoffice.colorado.gov/buildings/building-energy-codes/energy-code-board>.

this update; however, this EV Readiness Plan does not provide additional guidance regarding the adoption of EV-ready code standards.

Through the planning process outlined in [Appendix A](#), Adams County staff identified the following barriers and opportunities related to public charging investment in the County.

*Table 3: Barriers and Opportunities of Public Charging*

Barriers	Opportunities
<ul style="list-style-type: none"> <li>Potential change in political will to be focused on transportation electrification</li> <li>Capital costs– to plan and install infrastructure</li> <li>Cost of vehicles themselves, especially for fleet vehicles</li> <li>Patchwork geography with many municipalities in western part of the county – high coordination needs, understand what other municipalities are doing</li> <li>Utility access and electrical capacity in rural eastern portion of the county</li> <li>There are no areas in eastern Adams County identified as disproportionately impacted communities, as defined by Colorado Energy Office (CEO), and therefore are not eligible for supplemental infrastructure funding</li> </ul>	<ul style="list-style-type: none"> <li>Federal and state programs, incentives, and funding</li> <li>Pre-installation of additional capacity</li> <li>Solar powered charging station for spaces with limited or no infrastructure (opportunity for Parks and Open Space)</li> <li>Fleet electrification education for fleet managers</li> </ul>

## Public Charging Objectives

Adams County wants to encourage more EV adoption, across diverse market segments. Some segments, like those who rent or live in multifamily buildings may rely more heavily on public charging. In Adams County, approximately 19% of housing units are in multifamily buildings (more than four units) and approximately 32% of occupied housing units are renter-occupied (U.S. Census Bureau, 2021). The market may be slower to fill gaps in these areas, presenting a key role for the County to support the installation of charging infrastructure in a manner that reduces barriers for residents. Adams County identified three objectives to guide the County’s public charging prioritization and installation efforts to support EV charger development (**Figure 7**). By assessing and identifying EV charging needs and locations and using community engagement (Chapter 3) the need can begin to be filled.



### Identify Market Gaps

- Prioritize County-led investment
- Identify and prioritize where there are private investment opportunities



### Increase Equitable Charging Access

- Increase public charging access to residents in multifamily developments
- Increase public charging access to renters



### Support Economic Development

- Identify gaps and potential public-private partnerships to meet the need

*Figure 7. Adams County Public Charging Objectives*

Three tools were developed during the planning process to provide a framework for prioritizing EV charging station locations, in accordance with the objectives above:

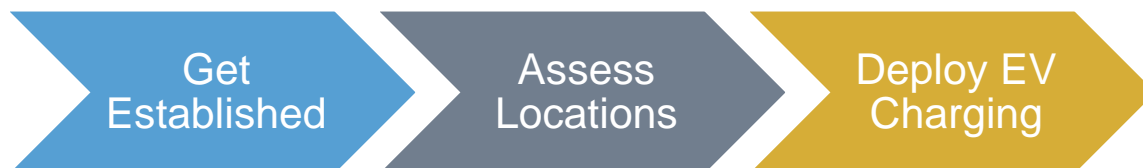
- **Unincorporated Adams County EV Siting and Outreach Map:** This map is to be used to help quantify key potential location prioritization for public EV stations based on a variety of data that will be recorded in the Adams County EV Infrastructure Siting Prioritization Workbook.
- **Adams County EV Infrastructure Siting and Outreach Map Guide:** This guide provides information about the purpose of the map, the data layers, and how to use the layers to identify potential public charging sites within unincorporated Adams County and to identify targeted audiences for educational outreach about EVs and EV charging.
- **Adams County EV Infrastructure Siting Prioritization Workbook:** This workbook will be used to help prioritize EV station location installations through several criteria related to geographic, equity, and site considerations and characteristics.

For more information on each of these tools, see [Appendix B](#).

## Work Plan

To achieve the public charging objectives outlined above, the Fleet and Facilities Department will lead coordination across various Adams County departments to assess ideal charging locations, deploy EV charging, and measure results.

The following workplan provides a roadmap for coordination and collaboration. Update this workplan as needed to reflect changes in staffing or process.



## Get Established

1. **Establish regular check-ins:** Public charging lead to establish quarterly check-ins with all roles identified in Table 2Table 4 to identify potential key areas and sites, key funding opportunities, opportunities for collaboration, public-private partnership opportunities.

## Assess Locations

Use the EV Siting and Outreach Map, Map Guide, and Site Prioritization Workbook (collectively referred to as “Adams County EV infrastructure siting prioritization tools” to identify and assess locations for ideal public charging investments.

1. **Focus Area Lead and Mapping Lead should familiarize themselves with Adams County EV infrastructure siting prioritization tools:** To become familiar with the tools, open the map and review the map guide. The guide will provide information on the data layers in the map and provides the process for how to use the map to identify potential areas and sites. With potential sites identified, use the map guide to follow how the map integrates with the workbook. The workbook has a tool guide and information within it to inform how to use it to prioritize locations.
2. **Identify locations:** With support from the full team, use the map guide to lead the mapping exercise to identify potential locations for EV stations in unincorporated Adams County. This will reduce barriers for people who may have a hard accessing home charging such as multifamily residents and renters. With the team’s identified roles, assess location feasibility to include in the prioritization process.
3. **Prioritize locations:** Once areas or locations are identified using the map, add the locations into the workbook. The team will help to prioritize locations using the geographic, equity, and site characteristics. The workbook can weigh the geographic, equity, and site characteristics differently. In the tool guide tab, customize these weights. For example, if applying to federal funding, the equity considerations could be weighted more than the other categories to prioritize locations that are defined as part of Justice40, which directs 40% of the overall benefits of certain Federal investments – including investments in EV charging – to flow to disadvantaged communities.
4. **Engage with site owners:** For sites identified on County-owned property, coordinate with Facilities and Fleet Management to confirm the opportunity and to identify potential synergies or conflicts with potential fleet or workplace charging projects. For sites identified on property not owned by the County, engage with the site owner to gauge their interest in private investment or a public private partnership. See [Chapter 3](#) for more details.
5. **Engage with the electric utility for the site:** Connect with the local electric utility representative about EV programs, local grid infrastructure and electrical capacity, and electricity rates and pricing structure.
6. **Determine the type of EV charger:** Use the workbook and the dwell time site characteristic that takes into account how long a vehicle may be parked to determine the type of charger best suited for the site. Work with your utility provider to better understand the site’s electrical capacity and what type of charger may be feasible.
7. **Identify public-private partnerships:** Opportunities for public-private partnerships could include exploring leasing County land for EV charger installations that are owned or operated by a third party and working through right-of-way logistics to allow for site hosts to install EV charging stations along it, including DC fast charging stations. When

public-private partnership opportunities are identified, connect with the Engagement team to inform them of the opportunities so they can lead engagement with appropriate partners.

- 8. Apply for funding:** With the list of prioritized locations, the selected team members will identify and apply for funding. Potential funding opportunities are listed in the Resources Available to Support Implementation section in this chapter. The EV station project coordinator should also identify any County funding available to meet any matching requirements or County budget needs for the project.

## Deploy EV Charging

The following activities should occur as often as needed to install EV charging stations and to assess ongoing operations and maintenance.

- 1. Begin project site planning for stations on County property:** The EV station project coordinator should meet with the project manager for County facilities projects, the site host department contact, engineering, and any other relevant staff for the EV station site.
- 2. Determine procurement process:** The EV station project coordinator should align EV stations with budget requests and any scheduled maintenance or construction to include EV charging. Make sure to follow all County procurement processes. The EV station project coordinator should file for necessary permits based on site plans, with any necessary documentation based on any incentive requirements.
- 3. Determine site specifics:** The EV station project coordinator should determine site specifics with the site owner department manager. These can include, but aren't limited to the location of charger, accessibility design, network connection needs, signage placement. The electric utility serving the site may help inform the location of the charger. Public works and engineering should design the EV station based on the site specifics.
- 4. Install EV charging stations:** The EV station project coordinator should manage the install stations and report to the [Alternative Fueling Station Locator](#), provide clean signage about access, time limits, pricing, and customer service.
- 5. Assess operations and maintenance:** The EV station project coordinator or facilities staff should track operational costs, station usage, and maintenance costs and consider additional needs.

## Roles and Responsibilities

Adams County's Facilities & Fleet Management Department has been leading public EV charger installation at County facilities. Expanding public charging prioritization to reduce barriers for renters, multifamily residents, and low-income residents will require a wider lens of County properties, as well as assessing locations for potential public-private partnership opportunities.

To take a more comprehensive assessment of EV charging locations, bringing in other departments will support a robust assessment. **Table 4** describes the roles and responsibilities of Adams County staff related to public charging.

Table 4. Public Charging Roles and Responsibilities

Title	Role	Responsibilities
EV station project coordinator, Facilities & Fleet Management	Focus area lead	<ul style="list-style-type: none"> <li>Attend quarterly meetings with other focus area leads to support general plan coordination</li> <li>Lead tracking and reporting of key strategies</li> <li>Lead EV infrastructure siting mapping exercise to identify potential locations and areas for public charging (Appendix B)</li> <li>Use outputs of public charging identification exercise to identify specific sites for County facilities sites</li> </ul>
Business Solutions Manager, Information Technology and Innovation	Mapping lead	<ul style="list-style-type: none"> <li>Update mapping layers as indicated in the map guide</li> </ul>
Sustainability Administrator, Facilities & Fleet Management	Site identification lead	<ul style="list-style-type: none"> <li>Lead EV infrastructure siting mapping exercise to identify potential locations and areas for public charging in unincorporated Adams County</li> <li>Coordinate siting exercises with Community and Economic Development as needed</li> </ul>
Project manager for County facilities projects, Facilities & Fleet Management	County facility funding lead	<ul style="list-style-type: none"> <li>Support EV infrastructure siting mapping exercise to identify potential locations and areas for public charging in unincorporated Adams County</li> <li>Apply for state and local funding for public EV stations at County facilities</li> </ul>
Real estate property manager, Facilities & Fleet Management	County property assessment lead	<ul style="list-style-type: none"> <li>Support EV infrastructure siting mapping exercise to identify potential locations and areas for public charging</li> <li>Use outputs of public charging identification exercise to assess the identified County properties as feasible sites for EV stations</li> </ul>
Manager, Parks, Open Space, & Cultural Arts	Parks, Open Space, & Cultural Arts liaison	<ul style="list-style-type: none"> <li>Support EV infrastructure siting mapping exercise to identify potential locations and areas for public charging at Parks, Open Space, &amp; Cultural Arts properties</li> </ul>
Traffic safety and multimodal engineer, Public Works	Federal funding lead	<ul style="list-style-type: none"> <li>Support EV infrastructure siting mapping exercise to identify potential locations and areas for public charging</li> <li>Use outputs of public charging identification exercise to identify specific sites for federal EV funding</li> <li>Apply for federal funding opportunities for public EV stations at County facilities</li> </ul>
Business and economic development	Community and Economic	<ul style="list-style-type: none"> <li>Support EV infrastructure siting mapping exercise to identify potential locations and areas for public charging</li> </ul>



specialist, Community & Economic Development	Development liaison	<ul style="list-style-type: none"> <li>Use outputs of public charging identification exercise to identify specific sites to lead discussions internally about public-private partnership opportunities and share with Community Engagement team (Chapter 3)</li> </ul>
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## Resources Available to Support Implementation

Programs from the federal, state, and local utilities can be used to offset public charger installation costs. The following resources are available to support the implementation of the public charging work plan (**Table 5**).

Table 5. Public Charging Resources

Resource	Description
<a href="#">Charging and Fueling Infrastructure Discretionary Grant Program</a> (CFI Program)	This federal program aims to deploy publicly accessible EV charging infrastructure in rural and urban communities and along Federal Highway Administration designated Alternative Fuel Corridors.
Colorado Energy Office's <a href="#">Charge Ahead Colorado</a>	This State program provides funding for community-based electric vehicle charging.
Colorado Energy Office's <a href="#">Direct Current Fast Charging Plazas</a>	This State program provides funding to increase access to high-speed charging in communities and along highway corridors across Colorado.
Xcel Energy's <a href="#">Community Charging Program</a>	This utility program focuses on supporting installing public charging stations.
United Power's <a href="#">EV Charger Rebates</a>	Utility programs focuses on supporting installing public charging stations
Alternative Fuels Data Center <a href="#">Laws and Incentives</a>	Find federal and state laws and incentives for alternative fuels and vehicles, air quality, fuel efficiency, and other transportation-related topics.



## CHAPTER 3 COMMUNITY ENGAGEMENT



### Connection to Sustainable Adams County 2030

**Goal 13:** Support EV mobility and infrastructure across all of Adams County

**Key Metric:** Percent of registered vehicles that are electric in Adams County

- 2019 Baseline: 1%
- 2022 Progress: 1%
- 2030 Target: 5%

#### Key Strategies

- 13.5** Implement EV education events for the community
- 13.6** Partner with member communities to fund key fast-charging infrastructure

#### Related Strategies

- 13.1** Prioritize locations for EV charging stations
- 13.2** Leverage grant funding to implement prioritized investments in EV charging
- 13.3** Develop and implement a countywide EV readiness plan

## Key Context

Achieving the County’s vehicle electrification target of 5% by 2030 will require addressing the most common barriers, while leveraging some of the most fruitful opportunities. For instance, range anxiety is a frequently cited barrier for EV ownership. Increasing access to public charging and promoting workplace charging can help alleviate range anxiety. Employees with access to workplace charging are six times more likely to purchase or lease an EV (U.S. Department of Energy, 2017).

**Range Anxiety** is the fear of running out of power in an EV before reaching a charging station or desired destination.

Lack of information is another commonly cited barrier. In 2020, Colorado developed a statewide [EV Education and Awareness Roadmap](#), which includes a survey to explore current understanding of EV technology and incentives. The results of the survey revealed significant opportunities to increase awareness of existing incentives that lower the upfront cost of EVs, and help the community understand how to charge EVs. With rapid advancements in technology and a shifting landscape of incentives, communication will continue to play a pivotal role in advancing EV adoption in Adams County. For instance, the average driver may not know that model year 2022 EVs have a median range of 257 and a maximum range of 520 miles on a full charge (U.S. Department of Energy and U.S. Environmental Protection Agency, 2021). The County can play a critical role in addressing barriers and seizing opportunities by engaging with residents, businesses, and site owners.

## Equity and Engagement

Too often community members who could benefit from electrification face barriers that prevent them from reaping the benefits. Common barriers include income, renter status, and access to a garage. The County has an important role to play in supporting an *equitable* transportation electrification transition. For example, the County can prioritize public charging on corridors in/near neighborhoods with high levels of pollution and/or in neighborhoods with higher proportions of renters and multifamily residents. The County can also connect lower-income residents, renters, and multifamily residents with resources and information customized to their barriers and opportunities, supporting them along their journey toward electrification. [Appendix C](#) includes specific messages and resources for targeted audiences.

Through the planning process outlined in [Appendix A](#), Adams County staff identified the following barriers and opportunities as it relates to community engagement in the County.

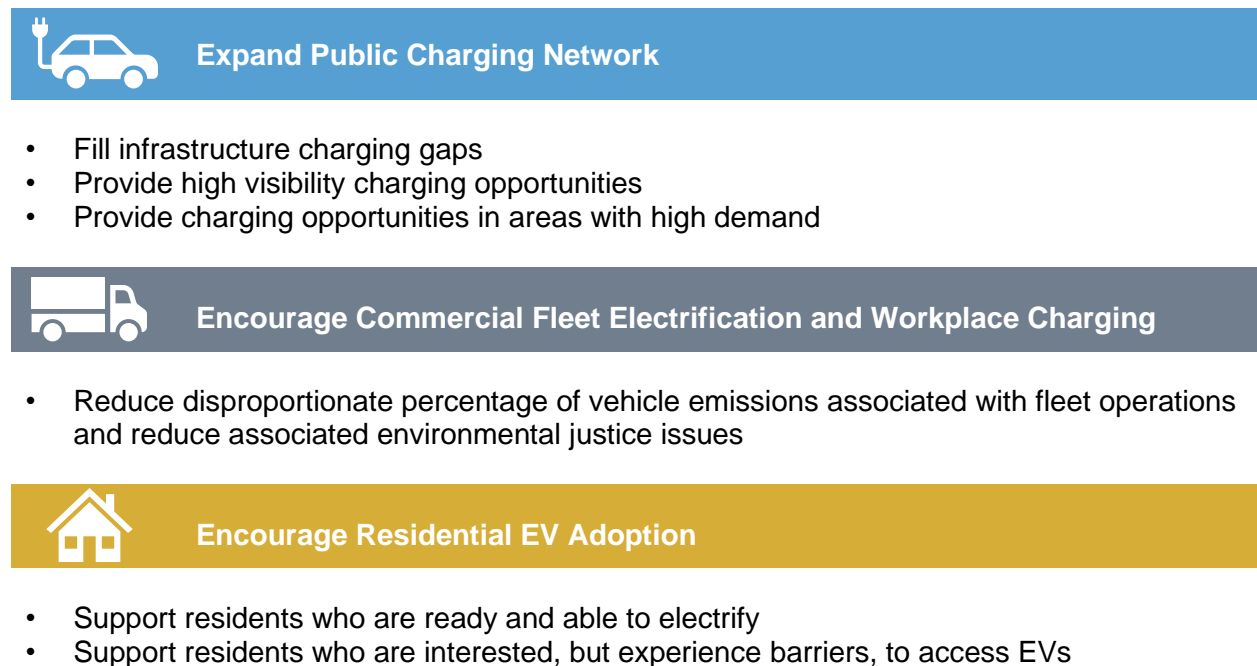
*Table 6: Barriers and Opportunities of Community Engagement*

Barriers	Opportunities
<ul style="list-style-type: none"> <li>Identifying specific audiences while contact lists are developed.</li> <li>Identifying communication channels that target specific audiences.</li> <li>Adams County has limited experience promoting EVs.</li> </ul>	<ul style="list-style-type: none"> <li>Through other similar projects, developed contacts can be leveraged for communication to multifamily property owners and management, businesses, and developers.</li> <li>Use ZIP codes to target neighborhood segments with customized social media.</li> </ul>

## Community Engagement Objectives

To support an increase in EV adoption and concurrent installation of EV charging infrastructure, three community engagement objectives were identified (**Figure 8**). For each engagement objective, one or more target stakeholder groups were identified (**Figure 9**).

Community engagement spans a wide range, from informing audiences to empowering stakeholders. Most of the engagement proposed in this chapter and [Appendix C](#) focuses on informing various audiences regarding the benefits of EVs and the resources available to support residents and businesses along their electrification journeys. However, several engagement activities, especially those focused on encouraging site owners to install public charging stations, will require the County to build relationships with stakeholders to empower action.



*Figure 8. Adams County Electric Vehicle Community Engagement Objectives*

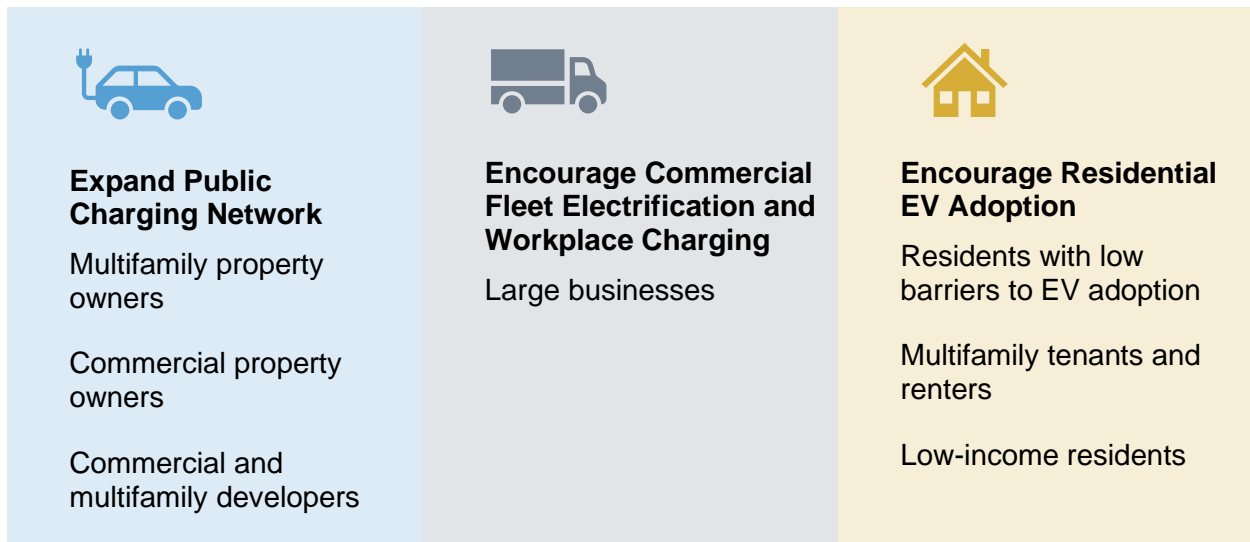
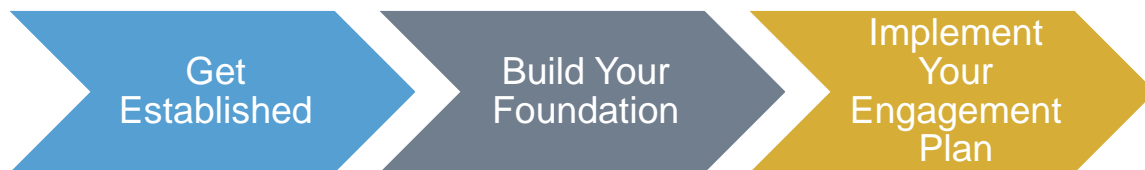


Figure 9: Target Stakeholder Group by Community Engagement Objective

## Work Plan

Achieving the engagement objectives outlined above will require significant coordination across multiple departments. The following work plan provides a roadmap to guide the coordination and collaboration necessary to build a robust and high-functioning engagement team, to continue building and establishing core messaging and communication channels, and to execute a multi-faceted engagement plan.



### Get Established

1. **Establish regular check-ins:** Engagement lead to establish quarterly check-ins with all roles identified in **Table 7**. Use check-ins to identify key outreach opportunities, outreach and engagement material needs, opportunities for collaboration, coordinate on events, and develop and maintain key resources (e.g., website).

### Build Your Foundation

The following activities require a larger initial effort, followed by lower-effort maintenance annually.

1. **Establish an EV webpage:** An Adams County EV webpage can serve as a clearinghouse for information, allowing promotional materials to remain concise and inspirational. See Sample EV for suggested details.
2. **Locate your target audiences:** Audiences call for targeted social media by zip code, direct mailers, local in-person events, or door-to-door outreach. Use the Unincorporated Adams County EV Siting and Outreach Map Guide ([Appendix B](#)) and map to identify more specific neighborhoods, mailing addresses or sites for:

- Engaging with multifamily and commercial property owners to encourage public charging
  - Identifying neighborhoods or zip codes with a high proportion of residents with low barriers to EV adoption
  - Identifying neighborhoods or zip codes with a high proportion of renters/multifamily residents
  - Identifying neighborhoods or zip codes with a high proportion of low-income residents
3. **Strengthen outreach channels:** Outreach channels are the pathways for informing or connecting with target stakeholders (e.g., social media, mailing lists, and events). [Appendix C](#) includes a list of potential outreach channels (see [Outreach Channel Summary Template](#)). Several channels were identified as critical, but still under development. Developing more robust outreach channels is critical to successfully reaching the desired stakeholders listed throughout this engagement plan. Complete the following:
- Compile a list of multifamily property owners
    - A preliminary list was developed to inform the development standards overhaul process and can be used as a foundation
    - Work with the Tax Assessors Office as a potential source to build upon this information
  - Compile a list of multifamily property resident addresses
  - Compile a list of residential rental properties
  - Grow commercial property owner and tenant relationships by:
    - Promoting incentives for business registration program
    - Continuing to grow Salesforce relationship management team
  - Work with Human Services and Community Safety & Well-Being to identify a list of community partners who could serve as liaisons to lower income populations

## Implement Your Engagement Plan

The following activities should occur annually and may require quarterly or more frequent coordination across departments.

1. **Develop a calendar of engagement events:** Use the information collected in “Build your Foundation” and presented in the [Outreach Channel Summary Template](#) to develop an engagement schedule. Schedule can, and should, include existing community events, new EV-specific events (e.g., community ride and drives), planned in-person engagement, and planned social media posts. Make sure to indicate the target audience associated with each event on the template to ensure you are covering all identified audiences. Identify any outreach and engagement material needs associated with each event.
2. **Develop outreach and engagement materials:** Use the key messages and relevant incentives in the outreach plan to develop outreach and engagement materials. Refer to the Outreach Channel Summary Template to accommodate any specific design/delivery requirements based on the intended channel.
3. **Share outreach and engagement materials with target audiences:** Use the Outreach Channel Summary Template identified for each audience to distribute outreach and engagement materials. As new or ad hoc opportunities arise, consider adding them to

the list of channels as well as any key successes or lessons learned to the channel notes.

## Roles and Responsibilities

Adams County’s Communications Department (Communications) is responsible for leading County-wide engagement and supporting departmental engagement needs. Communications develops and delivers engagement materials for residents and businesses in unincorporated Adams County, and for incorporated communities, across more than 30 platforms, including social media, the County’s website, news releases, and advertisements. Most community engagement responsibilities are largely dispersed across departments, with each department owning most of the responsibility for identifying outreach and engagement platforms, outreach and engagement material needs, and key messaging.

While Communications provides some centralized outreach functions for the County, engagement with residents and businesses regarding the adoption of EVs and installation of EV infrastructure will require careful and intentional coordination across departments. **Table 7** describes the roles and responsibilities of Adams County staff related to community engagement.

*Table 7. Community Engagement Roles and Responsibilities*

Title	Role	Responsibilities
Deputy director, Communications	Focus area lead	<ul style="list-style-type: none"> <li>Attend quarterly meetings with other focus area leads to support general plan coordination.</li> <li>Lead tracking and reporting of key strategies.</li> <li>Lead population of engagement channel summary template (leverage other team members to support).</li> <li>Support the organization and execution of outreach plans and activities when prompted by relevant departments (Community Safety and Well Being and Community and Economic Development), including development of relevant communication objectives, potential tracking metrics, and ideal engagement channels.</li> </ul>
Communications specialist, Communications	Community and Economic Development liaison	<ul style="list-style-type: none"> <li>Establish and maintain Adams County EV website.</li> <li>Work with development and marketing specialist to build website.</li> </ul>
Graphic design, Communications	Outreach and engagement materials design lead	<ul style="list-style-type: none"> <li>Lead the development and production of outreach and engagement materials when prompted by deputy director.</li> </ul>

Social media specialist, Communications	Social media lead	<ul style="list-style-type: none"> <li>Support the development of social media campaigns in partnership with relevant departments, including channel identification, content development, and scheduling.</li> </ul>
Sustainability Administrator, Facilities and Fleet Management	Site identification lead	<ul style="list-style-type: none"> <li>Use outputs of public charging identification exercise (see <a href="#">Chapter 2</a> for more details) to identify specific site owners to engage in public charging conversations.</li> <li>Support outreach to multifamily property owners and commercial property owners to promote installation of public EV charging.</li> </ul>
Business Development Officer, Community and Economic Development	Commercial and multifamily engagement lead	<ul style="list-style-type: none"> <li>Lead engagement with large businesses to promote fleet electrification and workplace charging.</li> <li>Lead engagement with multifamily property owners and commercial property owners to promote installation of public EV charging.</li> </ul>
Community engagement specialist, Community Safety and Well Being	Residential engagement lead	<ul style="list-style-type: none"> <li>Lead engagement with residents with low barriers to adoption.</li> <li>Lead engagement with multifamily tenants and renters.</li> <li>Lead engagement with lower-income residents.</li> </ul>

## Resources Available to Support Implementation

The following resources are available to support the implementation of the community engagement work plan (**Table 8**).

*Table 8. Community Engagement Resources*

Resource	Description
<a href="#">EV CO</a>	Colorado's State educational campaign aims to educate Colorado residents about the benefits and incentives for EVs. EV CO has a toolkit of resources that provides a variety of materials for use to inform residents about EVs through social media content.
Colorado Department of Transportation Office of Innovative Mobility <a href="#">E-Mobility Education and Awareness</a>	Grant to expand an educational campaign to equip residents of and visitors to Adams County with the right information to make informed decisions and encourage the adoption of e-mobility.





## CHAPTER 4 ADAMS COUNTY FLEET



### Connection to Sustainable Adams County 2030

**Goal 12:** Decrease County fleet emissions through vehicle and operational efficiency and fuel switching

**Key Metric:** Percent of eligible light-duty vehicles converted to electric in Adams County fleet

- 2019 Baseline: 1%
- 2022 Progress: 1%
- 2030 Target: 75%

#### Key Strategies

- 12.2** Develop and implement EV procurement plan

## Key Context

The County's goal for reducing fleet emissions will require both vehicle and operational efficiency and fuel switching. Fleet electrification will support the reduction of GHG emissions as well as air pollutants such as nitrogen dioxide and particulate matter, which contribute to air quality, public health, and environmental health issues. As staff adds more EVs to the fleet, it is important that the transition to EVs does not disrupt current operations and should maintain or exceed operational needs. EVs can provide both vehicle and operational efficiencies with the right planning covered in this chapter.

A strategic planning effort to transition to EVs is important. Appropriate vehicles need to be determined to replace current vehicles with suitable EVs procured to meet operational needs. Planning and installing charging infrastructure typically has a longer lead time than vehicle procurement, so charging requirements need to be determined, planned, and included in the budget early. Advanced infrastructure planning can also allow for efficiencies in installation to be identified. One other aspect for a successful EV transition is training to equip staff who will be driving with knowledge about vehicle features and how to charge the vehicles. More technical training should be provided for fleet operations and vehicle maintenance staff and for first and second responders who may respond to an incident with an EV.

## Fleet Baseline

### Vehicles

As of March 2023, the Adams County light-duty fleet included 351 vehicles. The average age of vehicles in the light-duty fleet is 5.7 years, and average mileage at the last odometer reading was 53,179 miles. **Figure 10** shows the mileage and age of fleet vehicles by County department. There are three BEVs (Nissan Leaf) and two PHEVs (Chevy Volt) in the fleet, all of which were purchased during or after 2015. For a more detailed baseline of Adams County's fleet, see [Appendix D](#).

### Charging

The County has installed charging stations at County facilities and there are currently 18 charging stations with 36 plugs at seven locations operated by the County for public, workplace, and fleet use. Most of the stations are available for public use (14 stations, 28 plugs). Four stations with eight plugs are behind secured access and available for both fleet vehicles and employee use for personal vehicles. The dual-purpose use of the chargers often leads to chargers being unavailable when fleet vehicles need to use them.

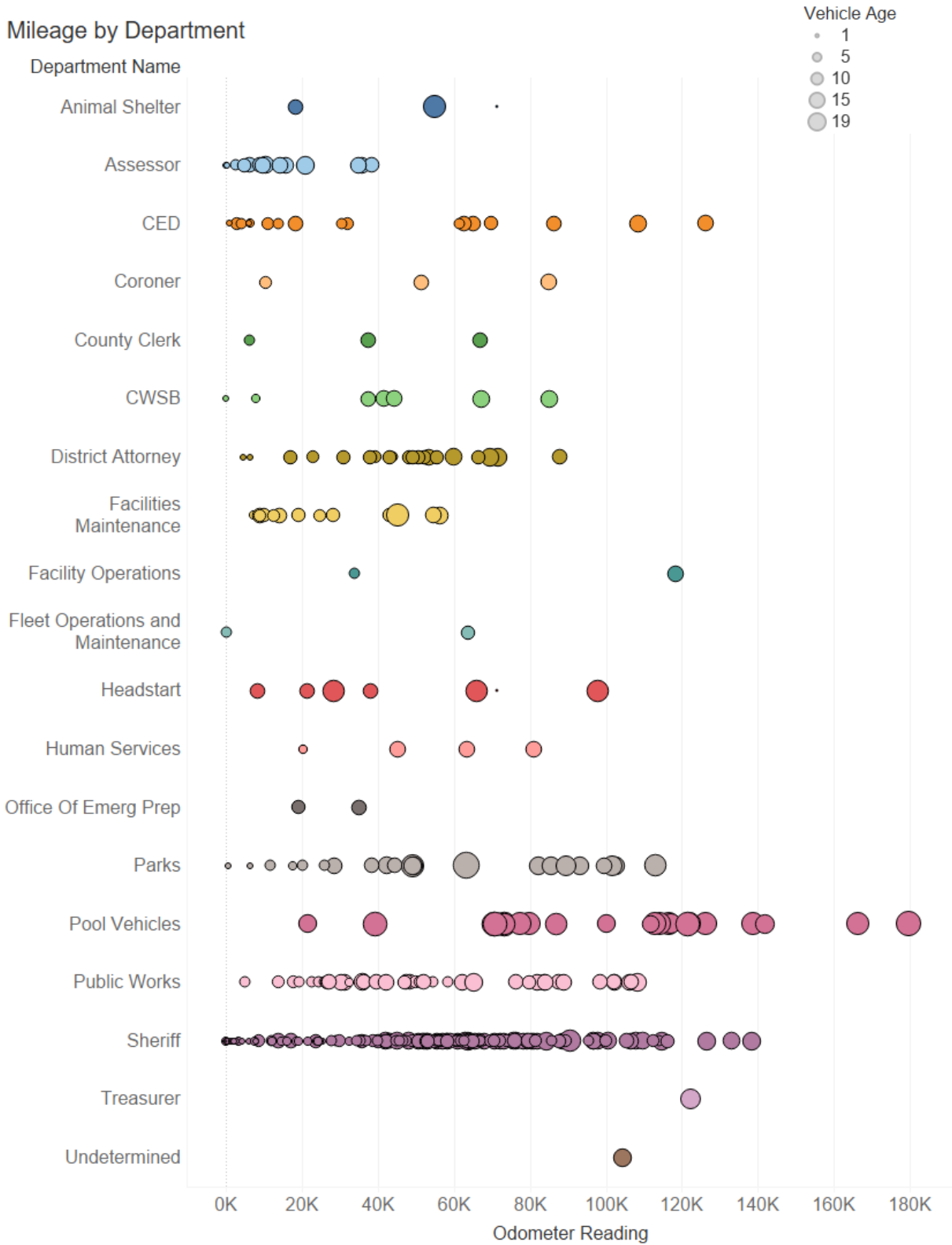


Figure 10. Mileage and Age of Fleet Vehicles by County Department

Through the planning process outlined in [Appendix A](#), Adams County staff identified the following barriers and opportunities as it relates to fleet electrification for Adams County.

*Table 9: Barriers and Opportunities of Fleet Electrification*

Barriers	Opportunities
<ul style="list-style-type: none"> <li>• Lack of charging infrastructure and policies               <ul style="list-style-type: none"> <li>○ Infrastructure at County sites</li> <li>○ Infrastructure along duty routes (in-route)</li> </ul> </li> <li>• Lack of market availability for vehicles that align with needs of County departments               <ul style="list-style-type: none"> <li>○ Vehicles deemed capable for Sheriff department duties</li> <li>○ Availability of pickup trucks for truck-specific duties</li> <li>○ Overall market constraints, high demand and low supply</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Advancements in technology enabling zero emission technology               <ul style="list-style-type: none"> <li>○ Automakers are committed to produce different models of EVs</li> <li>○ Continued support from the federal government in research and development for medium and heavy-duty vehicles</li> </ul> </li> <li>• Available incentives to help offset the upfront costs of vehicles and infrastructure               <ul style="list-style-type: none"> <li>○ Federal incentives and programs</li> <li>○ State incentives and programs</li> <li>○ Utility incentives and programs</li> </ul> </li> </ul>

## Replacement Recommendations and Goal Achievement

When the light-duty fleet is filtered down to examine non-Sheriff vehicles and non-residence-based vehicles, there are 154 vehicles. Of these 154, it was estimated that 140 would become eligible for replacement or already eligible for replacement by the end of 2030.

Between 2015 and 2023, Adams County procured two BEVs for the light-duty fleet of interest (excluding Sheriff and residence-based vehicles). The County needs to intentionally plan for increasing procurement of EVs more than current rates to meet its goal of transitioning 75% of eligible vehicles to EVs.

When the existing fleet replacement plan for 2024-2028 was analyzed and filtered to exclude Sheriff and Residence-based vehicles, an average of 8 vehicles are slated to be replaced each year. If 8 vehicles are replaced each year with EVs from 2024 to 2030, the County would achieve only 40% replacement of eligible vehicles (56 EVs out of 140 estimated eligible vehicles).

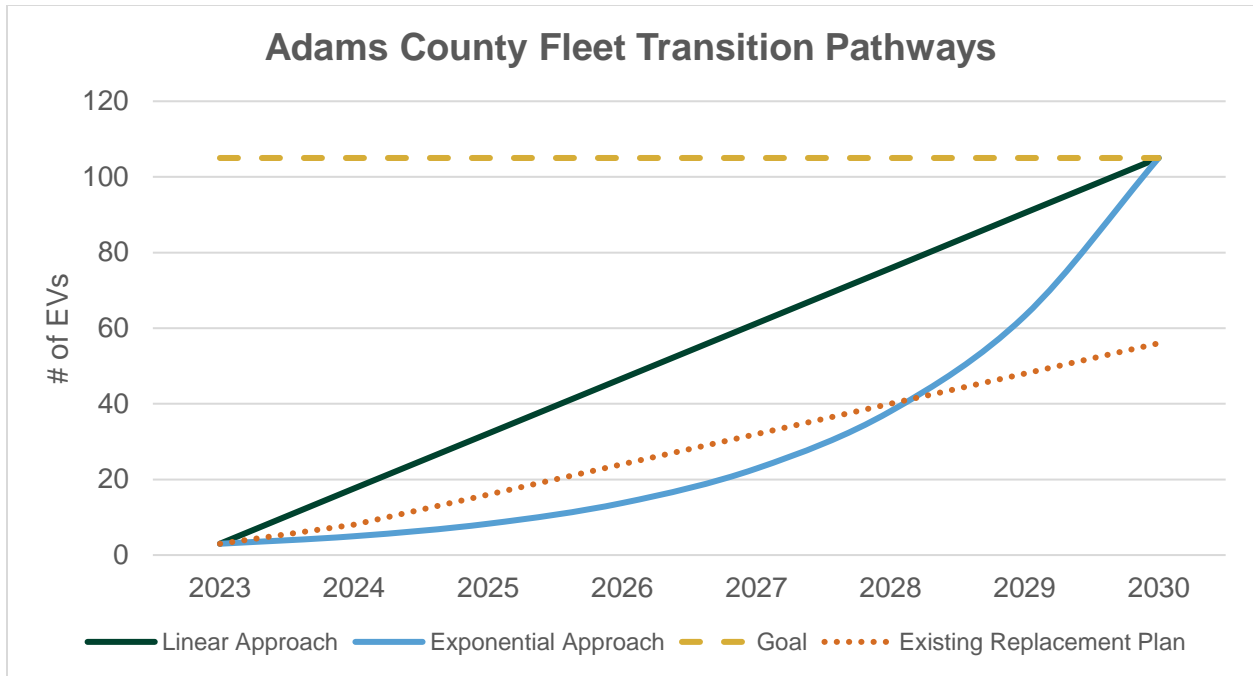


Figure 11. Adams County Fleet Transition Pathways

The County must invest in replacing more than the currently budgeted number of vehicles with EVs to meet the 75% goal by the end of 2030. A linear approach would require the County to procure 15 EVs per year. The County can also consider a more exponential style approach to EV procurement, wherein fewer EVs are purchased in the nearer years, and more EVs are purchased in years closer to 2030. These approaches are demonstrated in **Figure 11** **Error! Reference source not found.** above, and **Figure 12** and **Figure 13** below.

**Figure 11** demonstrates the large gap and accelerated action required to meet the goal of transitioning 75% of eligible light-duty vehicles to EV. This chart is specific to the subset of the light-duty fleet determined to be considered eligible, which is the light duty fleet excluding Sheriff vehicles and residence-based vehicles. The following charts show two approaches for a vehicle replacement plan. **Figure 12** assumes 15 ICE vehicles are replaced with EVs each year until 2030 This chart is specific to the subset of the light-duty fleet determined to be considered eligible, which is the light duty fleet excluding Sheriff vehicles and residence-based vehicles. Finally, **Figure 13** assumes 15 ICE vehicles are replaced with EVs each year until 2030 This chart is specific to the subset of the light-duty fleet determined to be considered eligible, which is described fully in the methodology section below.

### Alternative Replacement Schedule: Linear Approach Cumulative Impact

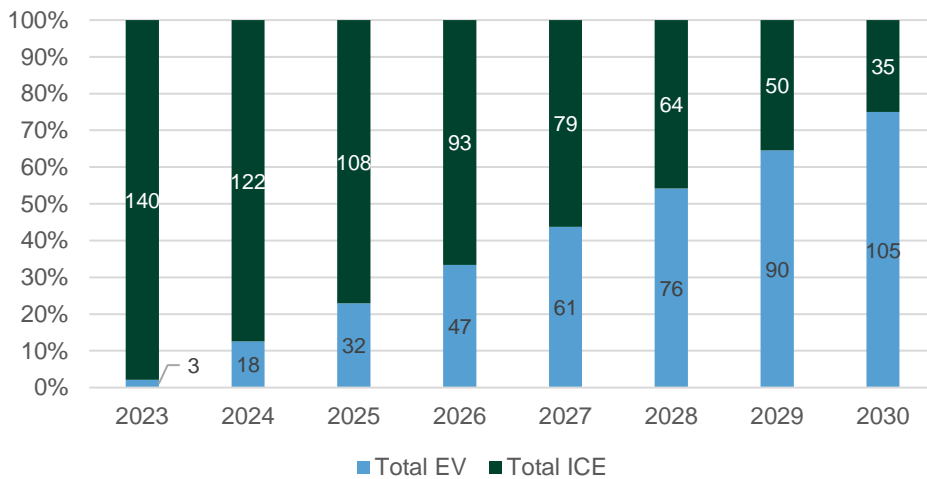


Figure 12. Adams County Fleet Alternative Replacement Schedule: Linear Approach

### Alternative Replacement Schedule: Exponential Approach Cumulative Impact

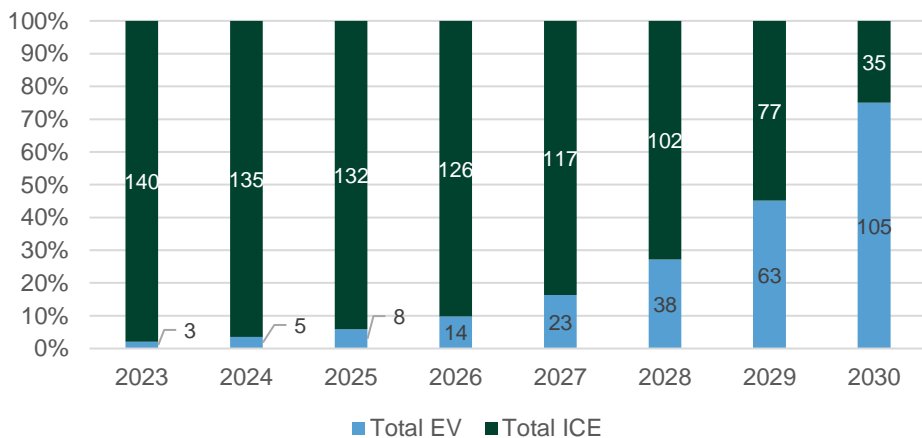


Figure 13. Adams County Fleet Alternative Replacement Schedule: Exponential Approach

Other key considerations regarding an accelerated fleet transition plan are the body classification of vehicles eligible for replacement (and conversely the market availability of an EV version of that body classification), and siting consideration in regard to charging availability. A body classification-focused replacement schedule is provided in [Appendix D](#). This alternative plan provides specific vehicle replacement recommendations, with an emphasis on replacing sedans in nearer years and more trucks in later years, in the context of the existing replacement plan where an average of 8 vehicles are being replaced per year in the relevant subset of the light-duty fleet. Charging and siting considerations are also detailed in [Appendix D](#).

## Analysis Methodology

A vehicle in the Adams County light-duty fleet is eligible for replacement when it is 10 years old or has been driven 100,000 miles. For the purposes of this analysis and this plan, eligible vehicles do not include Sheriff's department vehicles or vehicles domiciled at employee residences (frequently referred to as residence-based vehicles in this plan).

A list of light-duty fleet vehicles was filtered to the relevant departments and locations. Next, each vehicle's year eligible for replacement was determined according to the 10 years/100,000 miles criteria, based on existing average mileage per year driven and model year of the vehicle. Based on this filtered list and calculated year eligible, 140 vehicles would be eligible for replacement by the end of 2030.

Analysis of the existing replacement schedule in the context of the County goal revealed that the current schedule would not result in meeting the goal. This existing schedule was also used to show a preliminary replacement schedule that utilizes the same average number of vehicles replaced per year (8), to demonstrate an alternative schedule that places emphasis on replacing smaller vehicles earlier in the schedule, to accommodate the new and developing EV SUV and pickup truck markets.

## Adams County Fleet Electrification Objectives

Given the current fleet baseline, and the clear need to accelerate replacement and adoption of non-ICE vehicles, the County developed the following objectives to address the County Fleet transition. Adams County wants to leverage available incentives to electrify the fleet rapidly. Three fleet electrification objectives were established as part of this planning process (**Figure 14**).



### Pursue Short-Term Replacement Schedule & Available Incentives

- Determine necessary steps to utilize the appropriate short-term replacement schedule to meet goals and leverage available incentives
- Plan and schedule for associated EV charging infrastructure while leveraging available incentives



### Develop Policies Enabling the Switch to EVs

- Develop EV-first procurement policy that meets fleet needs
- Develop charging policy for residence-based vehicles



### Develop Training Materials

- Provide educational and training materials about driving and charging EVs
- Implement into new employee training

*Figure 14. Adams County Fleet Electrification Objectives*

## Work Plan

Achieving Adams County’s ambitious fleet electrification goal will require careful planning, design, and execution. The following work plan provides a roadmap to guide the coordination and collaboration necessary to advance fleet electrification goals.



### Get Established

1. **Establish regular check-ins:** Fleet electrification lead to establish quarterly check-ins with all roles identified in **Table 10** to understand near-term vehicle replacements, fleet charging sites, and key funding opportunities.

**Re-assess short-term replacement schedule:** Use the alternative schedule presented in [Appendix D](#)



2. Appendix D: Fleet Details to inform EV procurement and EV charging procurement as well as installation opportunities.
3. **Draft an EV-first procurement policy:** An EV-first policy will guide procurement decisions towards EVs and away from ICE vehicles. This can include an evaluation of leasing vehicles as an option. See [EV-First Procurement Resources](#) in Appendix D for additional information.
4. **Draft a charging infrastructure investment schedule:** Identify charging infrastructure investment needs for County-fleet depots, facilities, and residence-based vehicles. See the charging infrastructure assessment in [Charging Infrastructure Investment Schedule Guidance](#) and [Finalize a charging infrastructure plan](#) in Appendix D.
5. **Draft a policy for EV charging for residence-based vehicles.** This may include making updates to residence-based vehicle policies to include EV-inclusive specifications. See residence-based vehicle policy example in [Residence-Based Vehicle Policy](#) in Appendix D.

## Design

1. **Finalize the EV-first procurement policy:** Develop and adopt an internal County policy that requires fleet staff to procure an EV for fleet vehicle replacements or new additions whenever the vehicle is readily available, meets the required needs, and where the incremental costs associated with total cost of ownership offers cost savings.
2. **Finalize a charging infrastructure plan:** This requires coordination with fleet and facilities staff to ensure the vehicle charging needs match the EV charging station installation. Development of infrastructure to support electrification of fleets often requires a longer amount of time than the procurement of vehicles. It is encouraged to implement infrastructure plans in phases, reviewing and updating requirements with each phase. For details see [Finalize a charging infrastructure plan](#) in Appendix D.

## Execute

1. **Adopt new plans and policies:** Adopting the EV-first procurement policy and a residence-based policy will enable clear protocols for acquiring EVs and support moving forward with accelerated EV adoption.
2. **Procure EV charging equipment:** This can be from the State contract or through an RFP process.
3. **Lease or purchase EVs:** Determine the best procurement option and use the state bid or County procurement process.
4. **Install EVSE:** Use the determined installer and set up a program to monitor usage. Set up accounts or process to identify vehicle charging or staff that used and charged vehicle, if desired.
5. **Conduct staff and driver training:** Fleet staff, first responders, and staff who will drive an EV will need training. Employees should be aware of Adams County EV and charging policies. See [Conduct staff training](#) in Appendix D.

## Roles and Responsibilities

Executing this workplan will require coordination across multiple departments and divisions, including fleet managers, project managers, procurement, and fleet users. Core functions of this multi-disciplinary team include identifying funding opportunities, navigating procurement procedures, assessing charging infrastructure needs, and conducting staff training. The

Facilities & Fleet Management Department Director is responsible for coordinating the various roles and responsibilities across each of these departments and divisions.

*Table 10. Fleet Electrification Roles and Responsibilities*

Title	Role	Responsibilities
Director, Facilities & Fleet Management	Focus area lead	<ul style="list-style-type: none"> <li>Attend quarterly meetings with other focus area leads to support general plan coordination</li> <li>Lead tracking and reporting of key strategies</li> <li>Lead the development of EV-related policies: EV-first procurement and charging policy for residence-based vehicles</li> <li>Support the vehicle replacement plan, charging infrastructure plan, and EV training material development</li> </ul>
Operations Manager, Fleet Management	Vehicle replacement lead	<ul style="list-style-type: none"> <li>Lead vehicle replacement plan</li> <li>Support the charging infrastructure plan, EV training material development, and the development of EV-related policies: EV-first procurement and charging policy for residence-based vehicles</li> </ul>
Project Manager for County Facilities Projects, Facilities & Fleet Management	Fleet charging station planning lead	<ul style="list-style-type: none"> <li>Lead charging infrastructure installation plan</li> <li>Lead project management of EV charging installations</li> <li>Apply for State and local funding for fleet EV stations at County facilities</li> </ul>
EV Station Project Coordinator, Facilities & Fleet Management	Fleet charging station planning support	<ul style="list-style-type: none"> <li>Support charging infrastructure installation plan</li> <li>Manage deploying and installing of fleet EV stations at County facilities</li> </ul>
Procurement	Vehicle and charging station procurement lead	<ul style="list-style-type: none"> <li>Support vehicle replacement plan through the authorization of EVs</li> <li>Support the charging infrastructure plan through procurement of charging equipment</li> </ul>
Departments with EVs in fleet		<ul style="list-style-type: none"> <li>Support the vehicle replacement plan, charging infrastructure plan, and</li> <li>Utilize the EV training material to become knowledgeable about how to drive EVs and use charging stations</li> </ul>

## Resources Available to Support Implementation

The following resources are available to support the implementation of the Adams County Fleet work plan.

Table 11: Resources to Support Implementation

Resource	Description
Utility programs	Electric utility programs for EV charging may support installations and bring down costs.
Colorado Energy Office’s <a href="#">Fleet Zero-Emission Resource Opportunity (Fleet-ZERO)</a>	A grant program that strategically addresses greenhouse gas emissions and air pollution from the fleet sector by funding EV charging to support the transition of light-, medium-, and heavy-duty fleets to electric vehicles.
Colorado Department of Public Health and Environment’s <a href="#">Clean Fleet Vehicle &amp; Technology Grant Program</a>	A statewide competitive application process for eligible light-, medium- and heavy-duty fleet vehicles to switch to cleaner emission technology.
Federal <a href="#">Clean Vehicle Tax Credit</a>	Businesses and tax-exempt organizations that buy a qualified commercial clean vehicle may qualify for a federal clean vehicle tax credit of up to \$40,000 under Internal Revenue Code 45W.
Federal <a href="#">Elective Pay and Transferability</a>	Tax-exempt and governmental entities that were generally unable to use tax credits can now benefit from clean energy tax credits using new options enabled by the Inflation Reduction Act of 2022.



## CHAPTER 5 IMPLEMENTATION

### Short-term Implementation Timeline

The following timetable outlines the key action steps by quarter for each focus area. Each bullet references a specific step outlined in the workplans detailed in the focus area chapters. Refer to these workplans and accompanying appendices for more information. This table serves as a guide to inform key implementation activities, points of coordination, and budget requests.

*Table 12: Implementation Timeline*

Quarter	Charging	Community Engagement	Fleet
Q2 2024	<ul style="list-style-type: none"> <li>Establish regular check-ins</li> <li>Get familiar with siting tools</li> <li>Use siting tools to identify suitable areas for EV charging</li> </ul>	<ul style="list-style-type: none"> <li>Establish regular check-ins</li> <li>Populate Outreach Channel Summary Template</li> <li>Develop preliminary calendar of events</li> </ul>	<ul style="list-style-type: none"> <li>Establish regular check-ins</li> <li>Reassess short-term replacement schedule</li> </ul>
Q3 2024	<ul style="list-style-type: none"> <li>Work with outreach team to identify specific sites</li> <li>Use the siting prioritization tool to prioritize sites, as needed</li> </ul>	<ul style="list-style-type: none"> <li>Launch EV webpage</li> <li>Locate your target audiences for residential outreach</li> <li>Work with Public Charging team to identify sites for charging infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>Draft an EV-first procurement policy</li> <li>Draft a charging infrastructure investment schedule based on revised replacement schedule</li> </ul>

		<ul style="list-style-type: none"> <li>Strengthen outreach channels</li> </ul>	<ul style="list-style-type: none"> <li>Draft a policy for EV charging for residence-based vehicles</li> </ul>
<b>Q4 2024</b>	<ul style="list-style-type: none"> <li>Work with outreach team to engage with site owners, if not County-owned and work with fleet team if sites are County-owned</li> <li>Work with site owner to determine type of EV charger appropriate, and with utility to understand capacity</li> </ul>	<ul style="list-style-type: none"> <li>Refine calendar of events</li> <li>Develop outreach and engagement materials</li> <li>Begin sharing outreach materials</li> <li>Begin site owner engagement to encourage public charging installation</li> </ul>	<ul style="list-style-type: none"> <li>Finalize the EV-first procurement policy</li> <li>Finalize the charging infrastructure plan (includes site planning, preparation and permitting) and submit accompanying budget requests</li> <li>Finalize the policy for EV charging for residence-based vehicles</li> </ul>
<b>Q1 2025</b>	<ul style="list-style-type: none"> <li>Identify opportunities for private public partnerships</li> <li>Budget for private public partnerships and pursue grant funding</li> </ul>	<ul style="list-style-type: none"> <li>Ongoing outreach and engagement</li> <li>Ongoing outreach and engagement</li> </ul>	<ul style="list-style-type: none"> <li>Adopt new plans and policies and finalize budget requests</li> <li>Begin procurement process for EV charging stations</li> <li>Begin procurement or lease process for EVs</li> </ul>
<b>Q2 2025</b>	<ul style="list-style-type: none"> <li>For projects on County property, begin site planning, determine site specifics, and procurement process</li> </ul>	<ul style="list-style-type: none"> <li>Ongoing outreach and engagement</li> </ul>	<ul style="list-style-type: none"> <li>Finalize procurement process for EV charging stations</li> </ul>
<b>Q3 2025</b>	<ul style="list-style-type: none"> <li>Install EV charging stations</li> </ul>	<ul style="list-style-type: none"> <li>Ongoing outreach and engagement</li> </ul>	<ul style="list-style-type: none"> <li>Install EVSE</li> </ul>
<b>Q4 2025</b>	<ul style="list-style-type: none"> <li>Assess operations and maintenance</li> </ul>		<ul style="list-style-type: none"> <li>Conduct staff and driver training</li> </ul>

In addition to the implementation activities outlined above, sub-teams identified in the roles and responsibilities section of each focus area should meet monthly to coordinate key activities for individual focus areas. All three sub-teams should convene quarterly to coordinate across focus areas, and annually to coordinate tracking and reporting in alignment with Sustainable Adams County 2030 annual reporting processes.

### Living Plan

The Adams County EV Readiness Plan is intended to function as a living, dynamic document that evolves with funding opportunities, changing community needs, and priorities. Every quarter the County should check in to reassess the progress in each focus area to ensure actions are still relevant and adjust as needed. On an annual basis, the County should review and update the target metrics section of the Adams County Sustainability Tracker as noted in the workplans in Chapters 2, 3, and 4.

## EV-Readiness Team Coordination

The work plans outlined in this document should not occur in isolation. Fleet charging opportunities identified by the fleet sub-team might also serve as public charging opportunities. Importantly, the community engagement section is critical to take general areas identified as suitable for EV charging by the public charging sub-team and turning them into actual projects through site owner engagement.

Regular and as-needed coordination across sub-teams will bolster workflows and minimize duplication of efforts. Table 13 summarizes the key roles and responsibilities by focus area.

*Table 13. Summary of Roles and Responsibilities by Focus Area*

Title	Department	Public Charging	Community Engagement	Fleet Electrification
EV station project coordinator	Facilities & Fleet Management	L		S
Sustainability Administrator	Facilities & Fleet Management	L	S	
Business Solutions Manager	Information Technology and Innovation	S		
Project manager for County facilities projects	Facilities & Fleet Management	S		S
Real estate property manager	Facilities & Fleet Management	S		
Manager	Parks, Open Space, & Cultural Arts	S		
Traffic safety and multimodal engineer	Public Works	S		
Business and economic development specialist	Community & Economic Development	S		
Deputy director	Communications		L	
Communications specialist	Communications		S	
Graphic design	Communications		S	
Social media specialist	Communications		S	
Business development officer	Community and Economic Development		S	
Community engagement specialist	Community Safety and Well Being		S	
Director	Facilities & Fleet Management			L
Operations Manager	Fleet Management			S
Procurement	Facilities & Fleet Management			S
Departments with EVs in fleet				S

# APPENDIX A: PLANNING PROCESS

The content of this plan is derived from a series of project management team meetings, a meeting with relevant Adams County Directors, and three focus group meetings to build out tools and resources for this EV Readiness Plan.

## Project Management Team

The Project Management Team with representatives from County staff and Brendle Group met over the course of the project from December 2022 to October 2023.

- Ameer Faquir, Director, Facilities and Fleet Management
- Cat Townsend, Project manager, Facilities and Fleet Management
- Mike Gutierrez, Operations Manager, Fleet Management
- Andrea McCarthy, Task Lead, Brendle Group
- Dan Epstein, Executive Task Lead, Brendle Group
- Imogen Ainsworth, EV Task Analyst, Brendle Group
- Sarah Kaye, Project Manager, Brendle Group
- Van Wallace, EV Task Data Analyst, Brendle Group

## Focus Groups

Three focus groups were convened in July and August 2023 to develop a deeper understanding of roles and perspectives from departments that would be supporting the three focus areas in the EV Readiness Plan.

### Fleet Electrification

The Fleet Electrification focus group met to discuss the process for fleet vehicle procurement and to gain better insight into fleet needs, challenges and opportunities related to EVs.

#### **Attendees included:**

- Josh Sender, Traffic Safety and Multi-modal Engineer, Public Works
- Mike Gutierrez, Operations Manager, Fleet Management
- Trevor Graf, Manager, Parks, Open Space, & Cultural Arts
- Andrea McCarthy, Task Lead, Brendle Group
- Van Wallace, EV Task Data Analyst, Brendle Group

### Community Engagement

The Community Engagement focus group met to begin to develop an education and outreach campaign about electric vehicles and charging infrastructure by identifying targeted audience segments and aligning on unique key messages.

#### **Attendees included:**

- Amber Furgeson, Deputy Director, Communications

- Caroline Joy, Development and Marketing Specialist, Community and Economic Development Department
- Cat Townsend, Project Manager, Facilities & Fleet Management
- Andrea McCarthy, Task Lead, Brendle Group
- Sarah Kaye, Project Manager, Brendle Group

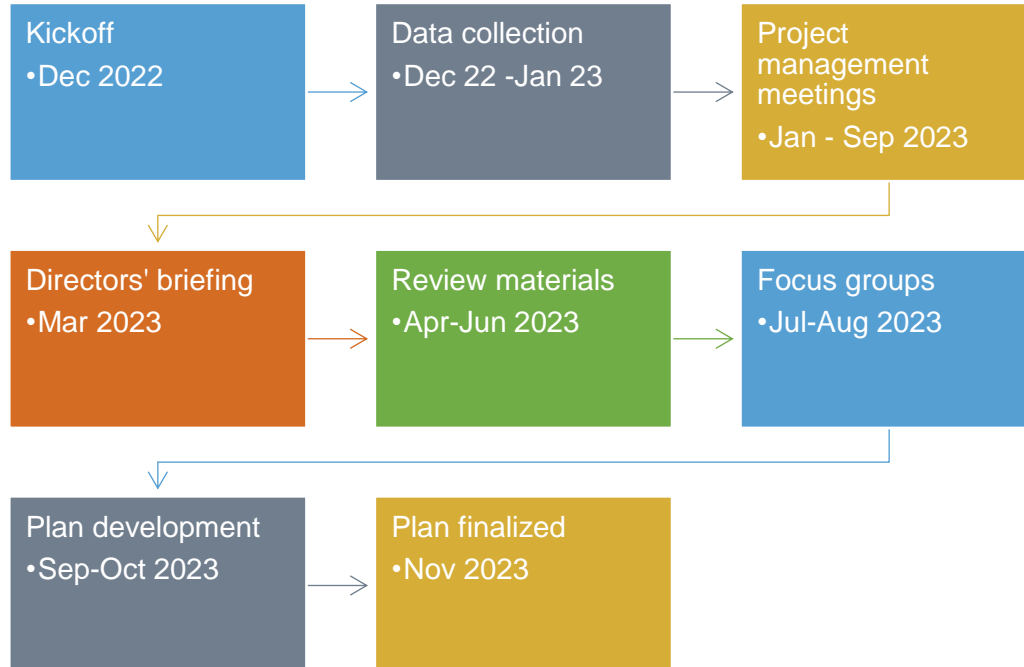
## Public Charging

The Public Charging focus group met to align on a framework to guide how Adams County wants to identify and support sites for EV investment such as what makes an ideal site for EV charging in Adams County.

### Attendees included:

- **Alisha Reis**, Senior Deputy County Manager - Countywide Strategic Planning
- **Cat Townsend**, Project Manager, Facilities & Fleet Management
- **David DeBoskey**, Planner II, Community and Economic Development Department
- **Josh Sender**, Traffic Safety and Multi-modal Engineer, Public Works
- **Andrea McCarthy**, Task Lead, Brendle Group
- **Sarah Kaye**, Project Manager, Brendle Group

## Project Timeline





# APPENDIX B: ADAMS COUNTY ELECTRIC VEHICLE (EV) INFRASTRUCTURE SITING AND OUTREACH MAP GUIDE

## Siting Public Charging Stations and Targeted Outreach

The Adams County EV Infrastructure Siting and Outreach Map was given to Adams County Geographic Information Systems Information Technology & Innovation Department. This staff will maintain the map and this Map Guide.

### Purpose of Map and Siting Prioritization

This map guide is designed to help Adams County:



- Identify potential public charging sites within unincorporated Adams County.
- Identify targeted audiences for educational outreach about EVs and EV charging.

### 1. Siting Public Charging Stations in Unincorporated Adams County

#### How to Use

##### 1. Become familiar with the layer groups and data layers.

- Layer Group: Existing EV Charging
  - DC fast charging port
    - This layer shows location and station information for direct current fast charging (DCFC) stations in Adams County. Only DCFC stations that are open to the public and are currently operational are listed.
    - To Download data: Go to the [Alternative Fueling Station Locator](#). Click the Advanced Filters tab.
      - Location: State – choose Colorado.
      - Fuel: Check Electric; Charger types choose Level 2, DC Fast; Connectors choose all; Networks choose all.
      - Station: Access check Public; Status check available; Vehicle Accessibility choose all; Owner choose all; Payment choose all.
    - Click Download results to get a .csv file to add to the map.
    - Select by Location – Input: EV charging station layer; Relationship: completely within; Selecting Features Adams County Boundary. Create Updated layer with selected EV charging station.
    - Symbolized by **ev\_dc\_fast\_num** field.
  - Level 2 charging port
    - This layer shows location and station information for EV Level 2 charging stations in Adams County. Only Level 2 charging stations that are open to the public and are currently operational are listed.

- Copy the DC fast charger layer and choose to symbolize by **ev\_level2\_evse-num** field.
  - Layer Group: Colorado National Electric Vehicle Infrastructure (NEVI) Corridors and Stations
    - NEVI DC fast charger
      - This layer shows all existing DCFC stations within 1 mi of designated Alternative Fuels Corridor. Categorized by whether or not they are NEVI compliant. Compliance standards and requirements are established in [23 CFR 680](#). [Colorado's plan](#) outlines its strategy for utilizing the federal NEVI Program funds addressing the establishment and evaluation of the build-out of the charging network.
      - This analysis was conducted by Colorado Department of Transportation.
    - NEVI Corridor Gap Analysis
      - The layer shows the status of Colorado's federally designated Alternative Fuel Corridors, classified based on presence of DCFC, and whether those chargers are NEVI compliant. Only chargers within 1 mile of corridors are included. A travel buffer was used to identify charging gaps of 50 or more miles, upgrade opportunities, and compliant segments.
      - This analysis was conducted by Colorado Department of Transportation.
      - Potentially need to update as new designations are annually announced. [Round 7 nominations were submitted June 21, 2023](#).
- RTD Park and Rides in Adams County
  -  The layer shows the location of RTD Park and Ride lots within Adams County.
  - Use the **Class** field to symbolize PNR (park and ride) and clip to Adams County Boundary.
- Medical Care Assistance 
  - This layer shows the location of health services in Adams County.
- Parks in Unincorporated Adams County
  - This layer shows Adams County parks in unincorporated Adams County.
- Adams County Property
  - This layer shows Adams County government properties.
  - Source: Adams County GIS
- Layer Group: Areas eligible for additional incentives
  - EV Charging Justice40 Initiative Census Tract (May 2022)
    - This layer shows the U.S. Department of Energy (DOE) and the U.S. Department of Transportation (DOT) joint interim guidance DOE and DOC disadvantaged communities (DACs) map for the National Electric Vehicle Infrastructure (NEVI) Program. This analysis was



conducted by Argonne National Laboratory. This DAC methodology is consistent with the Justice40 Interim Guidance and uses existing publicly available data sets that capture: vulnerable populations (socioeconomic, housing burden, etc.), health, transportation access and burden, energy burden, fossil dependence, resilience, and environmental and climate hazards. More details can be found through Argonne National Laboratory's [Electric Vehicle Charging Equity Considerations](#).

- Mobile Home Park
  - This layer shows the locations of mobile home parks in Adams County which are included in the State of Colorado's definition of disproportionately impacted communities. You can learn more about disproportionately impacted communities at [Colorado EnviroScreen](#).
- Socioeconomic Data
  - 2020 5-year ACS Race and Hispanic Origin for Adams County
    - This layer shows population by race and Hispanic origin. It contains the most current release of data from the American Community Survey (ACS). These are 5-year estimates shown by Census Tract boundaries. Updated December 12, 2022.
    - Layer has been selected by attribute: State is equal to Colorado and County is equal to Adams County.
  - 2020 5-year ACS Median Household Income for Adams County
    - This layer shows median household income in the past 12 months (inflation-adjusted dollars to last year of 5-year range). This is shown by Census Tract boundaries. It contains the most current release of data from the American Community Survey (ACS). These are 5-year estimates shown by Census Tract boundaries. Updated December 12, 2022.
    - Layer has been selected by attribute: State is equal to Colorado and County is equal to Adams County.
  - 2020 Employment Concentrations for Adams County
    - This layer shows employment concentrations in Adams County.
- Traffic Counts
  - This layer shows traffic count locations and ADT for Adams County. This dataset shows the traffic count locations and the average daily traffic (ADT) volumes for 2021 and 2022 in unincorporated Adams County.
- Electric Utility Territories
  - This layer shows the electric utility territories in Colorado.
- Roads
  - Highways (TIGER)
    - This layer shows primary roads. The TIGER/line Roads County-based dataset is updated annually. Updated April 15, 2022.
  - Major Roads (TIGER)
    - This layer shows secondary roads. The TIGER/line Roads County-based dataset is updated annually. Updated April 15, 2022.
  - TIGER Roads 2021

- This layer shows all roads. The layer includes primary, secondary, local neighborhood, and rural roads, city streets, vehicular trails (4wd), ramps, service drives, alleys, parking lot roads, private roads for service vehicles (logging, oil fields, ranches, etc.), bike paths or trails, bridle/horse paths, walkways/pedestrian trails, and stairways when the map is zoomed into city level. The TIGER/line Roads County-based dataset is updated annually. Updated April 15, 2022.
    - Unincorporated Adams County
      - This layer depicts unincorporated areas within Adams County.
      - Symbolized by **City\_Name** field = Unincorporated.
    - Adams County Boundary
      - This layer shows the County boundary.
    - World Light Gray Reference and World Light Gray Canvas Base
      - These layers are the base map.
2. Use the map to complete the Adams County EV Infrastructure Siting Prioritization Workbook. See the Tool Guide tab in the Workbook for more details about how to complete it. This includes adding the location name, address, property owner, and choosing location type from dropdown. Next indicate if this is a location that is for public charging and workplace charging. For each factor on the right, use the map and the guidance provided in the workbook to choose each factor's score. This will calculate the index score and an overall score. A high score indicates that the location is likely a good location for an EV charger.
- Geographic Considerations Questions
    - Employee parking
      - Turn on the Adams County Property layer to identify locations.
      - Either with staff knowledge or looking at aerial photography, determine if there is parking at this location.
      - Is this a location that has employee parking?
      - In the Adams County EV Infrastructure Siting Prioritization Workbook, add the corresponding index number according to the guidance in the cell to the Employee Parking Geographic Consideration.
    - Destination Area
      - Use map to determine if a destination is located near the location.
      - Examples may include but not limited to
        - Shopping centers
        - Dining locations
        - Parks
        - Theaters
        - Museums
        - Gyms
      - In the Adams County EV Infrastructure Siting Prioritization Workbook, add the corresponding index number according to the guidance in the cell to the Destination Area Geographic Consideration.

- Travel Corridors
  - Turn on NEVI DC fast charger and
  - Turn on NEVI Corridor Gap Analysis
  - Identify if the location is within 1 mile of a designated EV corridor.
  - In the Adams County EV Infrastructure Siting Prioritization Workbook, add the corresponding index number according to the guidance in the cell to the Travel Corridors Geographic Consideration.
- Equity Considerations
  - Turn on EV Charging Justice40 Initiative Census Tract (May 2022) layer to determine if the location is within an EV Charging Justice40 Initiative Census Tract.
    - In the Adams County EV Infrastructure Siting Prioritization Workbook, add the corresponding index number according to the guidance in the cell to the EV Charging Justice40 Initiative Census Tract Equity Considerations.
  - Use Colorado Energy Office [Transportation Equity Screening Tool for Colorado Energy Office Transportation Program](#) by putting in the address of the location to determine if it is located in a Disproportionately Impacted Community. In the Adams County EV Infrastructure Siting Prioritization Workbook, add the corresponding index number according to the guidance in the cell to the Disproportionately Impacted Communities for CEO Transportation Programs Equity Considerations.
- Site Characteristics
  - Existing EV Charging
    - Turn on the EV Charging layers (DC fast charging port and Level 2 charging port) to determine if there is existing EV charging nearby. Choose the score that corresponds to the guidance in the Adams County EV Infrastructure Siting Prioritization Workbook.

## 2. Identify Target Populations for Outreach

### How to Use

1. Identify the population you want to target for outreach.
  - a. Identify owners of commercial property owners to encourage workplace and public charging
  - b. Identifying neighborhoods or zip codes with a high proportion of residents with low barriers to EV adoption (single-family homes, higher incomes, own multiple vehicles, areas where EV owners already are)
  - c. Identifying neighborhoods or zip codes with a high proportion of renters/multifamily residents
  - d. Identifying neighborhoods with communities of color
  - e. Identifying neighborhoods or zip codes with a high proportion of low-income residents
2. Turn “on” layers to use to identify where populations are:

- a. For potential workplace charging at commercial properties use the 2020 Employment Concentrations for Adams County
- b. For Colorado disadvantaged communities use the [Transportation Equity Screening Tool for Colorado Energy Office Transportation Programs](#).
- c. For identifying EV owners by ZIP code go to <https://atlaspolicy.com/evaluateco/>.
- d. For communities of color turn on Socioeconomic Data: 2020 5-year ACS Race and Hispanic Origin.
- e. For income status turn on Socioeconomic Data: 2020 5-year ACS Median Household Income.
- f. For folks within an electric service utility use the layer Electric Utility Territories.

## Mapping Data Layer Sources and Recommended Scheduled Updates

Layer Name	Source	Updates	Geoprocessing
DC fast charging port	<a href="#">Alternative Fueling Station Locator</a> <ul style="list-style-type: none"> <li>• To Download data: Go to the <a href="#">Alternative Fueling Station Locator</a>. Click the Advanced Filters tab.                             <ul style="list-style-type: none"> <li>○ Location: State – choose Colorado.</li> <li>○ Fuel: Check Electric; Charger types choose Level 2, DC Fast; Connectors choose all; Networks choose all.</li> <li>○ Station: Access check Public; Status check available; Vehicle Accessibility choose all; Owner choose all; Payment choose all.</li> </ul> </li> <li>• Click Download results to get a .cvs file.</li> </ul>	Update monthly or quarterly	<ul style="list-style-type: none"> <li>• Add .cvs file to the map.</li> <li>• Select by Location – Input: EV charging station layer; Relationship: completely within; Selecting Features Adams County Boundary. Create Updated layer with selected EV charging station.</li> <li>• Symbolized by <b>ev_dc_fast_num</b> field.</li> </ul>
Level 2 charging port	<a href="#">Alternative Fueling Station Locator</a>	Update monthly or quarterly	Copy the DC fast charger layer and choose to symbolize by <b>ev_level2_evse-num</b> field.
NEVI DC fast charger	Colorado <a href="#">NEVI Project Planning Resource Map</a> Layer: <a href="#">DCFC stations</a>	Update annually	
NEVI Corridor Gap Analysis	Colorado <a href="#">NEVI Project Planning Resource Map</a>	Update annually	

<b>RTD Park and Rides in Adams County</b>	Layer: <a href="#">NEVI Corridor Gap Analysis</a> <a href="#">RTD</a>	Update annually	Use the <b>Class</b> field to symbolize PNR (park and ride) and clip to Adams County Boundary.
<b>Medical Care Assistance</b>	Adams County GIS <a href="#">Community Resources</a> Layer: <a href="#">Medical Care Assistance</a>	Update when the County updates this data layer or annually	
<b>Parks in Unincorporated Adams County</b>	Adams County GIS: <a href="#">Parks</a>	Update when the County updates this data layer or annually	
<b>Adams County Property</b>	Adams County GIS	Update when the County updates this data layer or annually.	
<b>EV Charging Justice40 Initiative Census Tract (May 2022)</b>	<a href="#">Electric Vehicle Charging Justice40 Map</a> Layer: <a href="#">DOE/DOT Interim Guidance DAC (May 2022)</a>	Potentially need to update when new guidance is issued	Clipped to Adams County boundary
<b>Mobile Home Park</b>	Adams County GIS: <a href="#">Mobile Home Park</a>	Update when the County updates this data layer or annually	
<b>2020 5-year ACS Race and Hispanic Origin for Adams County</b>	<a href="#">ACS Population by Race and Hispanic Origin Boundaries (FeatureServer)</a>	Update every 5 years	Clipped to Adams County boundary
<b>2020 5-year ACS Median Household Income for Adams County</b>	<a href="#">ACS Median Income by Race and Age Selp Emp Boundaries (FeatureServer)</a>	Update every 5 years	Clipped to Adams County boundary
<b>2020 Employment Concentrations for Adams County</b>	Denver Regional Council of Governments – <a href="#">Employment Concentrations Adams County 2020</a>	Update when new data is available	
<b>Traffic Counts</b>	Adams County GIS: <a href="#">Traffic Counts</a>	Update when the County updates this data layer or annually	
<b>Electric Utility Territories</b>	<a href="#">Colorado Electric Utility Territories</a>	Update annually	Symbolize by Style: Name; Clipped to Adams County boundary



<b>Highways (TIGER)</b>	<a href="#">TIGER Roads 2021 FeatureServer</a>	Update annually	Clipped to Adams County boundary; Symbolize Primary Roads
<b>Major Roads (TIGER)</b>	<a href="#">TIGER Roads 2021 FeatureServer</a>	Update annually	Clipped to Adams County boundary; Symbolize Secondary Roads
<b>TIGER Roads 2021</b>	<a href="#">TIGER Roads 2021 FeatureServer</a>	Update annually	Clipped to Adams County boundary
<b>Unincorporated Adams County</b>	Adams County GIS: <a href="#">Zoning</a>	Update when the County updates this data layer or annually	
<b>Adams County Boundary</b>	Adams County GIS: <a href="#">Adams County Boundary</a>	Update when the County updates this data layer or annually	
<b>World Light Gray Reference and World Light Gray Canvas Base</b>		Update annually	

# APPENDIX C: ENGAGEMENT PLAN

This outreach plan identifies the processes, channels, messages, and key resources to support community engagement to further the installation of public EV infrastructure and EV adoption in the County. While this outreach plan focuses on unincorporated Adams County, many of the principles used here can be applied to member jurisdictions. This plan includes specific outreach plans by target audience, a summary of outreach channels, and sample EV website content.

## Engagement Plan by Target Audience

The following sections identify key context for each outreach goal. For each audience segment, unique assumptions, key messages, relevant programs/incentives and considerations are included. Recommended outreach channels are compiled by audience segment. Full outreach channel details can be found in the [Engagement Channel Summary](#) section.

### Expand Public Charging

#### Multifamily Property Owners

##### Key Assumptions

- The property was identified as an ideal site for EV infrastructure based on siting map.
- Tenants are interested in EV ownership but might be concerned about range anxiety.
- Outreach can be conducted to tenants.
- Property owners might want to set up a fee structure for charging.

##### Key Messages

- Your site was identified as ideal for EV infrastructure because there is a residential parking facility within a designated Justice40 Census Tract or State-defined disadvantaged community.
- Federal, state, and utility funding is available to support installation of charging at multifamily properties.
- EV charging is a resident amenity that can attract and retain residents.

To learn more about installing charging on your property, visit:

##### Relevant Incentives

- [Xcel Energy Multifamily Charging](#) provides and pays for EV supply infrastructure and offers four charging equipment options
- [United Power Electric Vehicle Information Center](#) offers commercial rebates for the installation of qualifying publicly accessible EV chargers.
- **State and Federal Opportunities**
  - [DC Fast-Charging Plaza Grants](#)
  - [Charge Ahead Colorado Grants](#)
  - [Alternative Fuel Infrastructure Federal Tax Credit](#)

##### Outreach Channels

- County EV webpage
- Associations for property managers
- Stormwater billing inserts

## Commercial Property Owners

### Key Assumptions

- The property was identified as an ideal site for EV infrastructure based on siting map.
  - E.g., property has ideal dwell time based on services offered (e.g., 1+ hrs)
- Tenants are supportive of EV charging or outreach can be conducted to tenants.

### Key Messages

- The property was identified as an ideal site for EV infrastructure based on factors such as proximity to workplace parking, nearby destinations that draw visitors, proximity to a travel corridor, within a designated Justice40 Census Tract or state defined disadvantaged community.
- EV charging is an amenity that can attract and retain tenants.
- EV charging is an amenity that can attract customers.
- EV charging can provide a new revenue stream.
- Federal, state, and utility funding is available to support installation of charging at commercial properties.
- To learn more about installing charging on your property, visit:

### Relevant Incentives

- [Xcel Energy Business EV Solutions](#) provides end-to-end white glove service to businesses interested in fleet electrification and/or charging infrastructure. Examples include Fleet Electrification Advisory Program, Electric Vehicle Supply Infrastructure programs, and charging rebates for qualified customers
- [CORE Electric Cooperative Electric Vehicles](#) compiles EV resources and CORE incentives for charging infrastructure
- [United Power Electric Vehicle Information Center](#) compiles EV resources and United Power incentives for EV charging infrastructure
- **State and Federal Opportunities**
  - [DC Fast-Charging Plaza Grants](#)
  - [Charge Ahead Colorado Grants](#)
  - [Alternative Fuel Infrastructure Federal Tax Credit](#)

### Outreach Channels

- County EV webpage
- Registered business newsletter
- Business appreciation events
- Commercial Real Estate Development Association (NAIOP) and Denver Metro Commercial Association of Realtors (DMCAR)
- Chambers of Commerce

## Commercial and Multifamily Developers

### Key Assumptions

- Adams County will consider new EV-ready building codes as part of Development Standards Overhaul and building code update.
- Developers will install EV charging if there is market demand, and it is cost neutral/beneficial.
- State EV requirement for new multifamily buildings effective March 1, 2024.

### Key Messages

- Federal, state, and utility funding is available to support installation of charging at commercial and multifamily properties.
- EV charging is a desired amenity for tenants.
- There are development codes that require electric ready development (share electric-ready code summary).
- Be sure your development meets new requirements. Visit URL to learn more.

### Relevant Incentives

- [Xcel Energy Multifamily Charging](#) provides and pays for EV supply infrastructure and a new construction rebate for multifamily construction projects that provide more EV charging than required in local code
- **State and Federal Opportunities**
  - [DC Fast-Charging Plaza Grants](#)
  - [Charge Ahead Colorado Grants](#)
  - [Alternative Fuel Infrastructure Federal Tax Credit](#)

### Outreach Channels

- County EV webpage
- Development review comments

## Encourage Commercial Fleet Electrification and Workplace Charging

### Large Businesses with Fleet Vehicles

#### Key Assumptions

- Fleet managers are interested in vehicle electrification.
- Fleet managers are worried about performance parity, cost parity, and supply chain issues.

#### Key Messages

- Electric vehicles have fewer maintenance requirements and can be more cost effective to fuel with managed charging.
- Certain fleet vehicles have a low turnover rate; plan ahead to prepare for opportunities as they arise. Consider which vehicles are up for replacement over the next 5-10 years and identify suitable electric replacements. The EV market is expanding with new electric options for trucks, SUVs, and medium and heavy-duty equipment. For vehicle types with less availability, consider placing orders further in advance to ensure adequate buffer time.
- Installing adequate charging infrastructure requires sufficient lead time. As you think about electrifying one or more vehicles, consider what your charging needs will be based on that vehicle's daily driving demands and duties. Do you want a dedicated charging port per vehicle? Or can you share a single port between multiple vehicles. Will charging be open to employees or the public? Work closely with your electric utility to understand the electrical capacity of your site, and whether upgrades are necessary.
- Federal, state, and utility funding is available to support fleet electrification.
- There are resources to help you transition your fleet and onsite charging capabilities. Visit Adams County's EV Website to learn more.

#### Relevant Incentives

- [Xcel Energy Business EV Solutions](#) provides end-to-end white glove service to businesses interested in fleet electrification and/or charging infrastructure. Examples include Fleet Electrification Advisory Program, Electric Vehicle Supply Infrastructure programs, and charging rebates for qualified customers
- [CORE Electric Cooperative Electric Vehicles](#) compiles EV resources and CORE incentives for charging infrastructure
- [United Power Electric Vehicle Information Center](#) compiles EV resources and United Power incentives for EV charging infrastructure
- **State and Federal Opportunities**
  - Colorado Energy Office's [Fleet Zero-Emission Resource Opportunity \(Fleet-ZERO\)](#)
  - Colorado Department of Public Health and Environment's [Clean Fleet Vehicle & Technology Grant Program](#)
  - Colorado Energy Office's [eCargo Bike Commercial Delivery Pilot Program](#)
  - [Alternative Fuel Infrastructure Federal Tax Credit](#)

#### Outreach Channels

- County EV webpage
- Economic development newsletters or materials
- In-person visits/email outreach

## Encourage Residential EV Adoption

### Residents with Low Barriers to EV Adoption

#### Key Assumptions

- Residents in this target are single family homeowners with access to a garage.
- Residents have moderate/high-income households and access to two or more vehicles.
- Residents are interested in owning an EV, but still have a few hang ups: not sure how charging works, range anxiety, unfamiliarity with technology, and uncertainty about available resources.

#### Key Messages

- EVs are 50% cheaper to own and operate than gas-powered vehicles.
- Charging at home is easy and convenient.
- Median range for EVs on the market today is about 260 miles and the maximum is 520 miles, while average daily miles driven is about 35 miles.
- Plugging in to a standard three-pronged outlet can add 5 miles to your range in 1 hour
- Level 2 chargers can add 25 miles to your range in 1 hour; DC Fast Charging can add 100 miles to your range in 30 minutes
- There are lots of public charging opportunities in the Denver Metro Area and beyond.
- There are lots of incentives to lower the cost of your vehicle and at home charging.
- EVs are fun to drive.
- EVs are good for the environment.
- Take advantage of available incentives and simplify your life by investing in an EV today.

#### Relevant Incentives

- [Xcel Energy Incentives](#) compiles EV resources, and relevant federal, state, and Xcel Energy incentives

- [Xcel Energy EV Charging Programs](#) compiles Xcel Energy charging programs
- [CORE Electric Cooperative Electric Vehicles](#) compiles EV resources and CORE incentives for charging infrastructure
- [United Power Electric Vehicle Information Center](#) compiles EV resources and United Power incentives for EV charging infrastructure
- [Alternative Fuel Infrastructure Federal Tax Credit](#)

#### Outreach Channels

- County EV webpage
- Community Ride-and-Drives
- Neighborhood meetings
- HOA newsletters
- Social media
- Dealerships

### Multifamily Tenants and Renters

#### Key Assumptions

- Multifamily residents and renters are interested in owning EVs, but unsure about how to charge.

#### Key Messages

- EVs are 50% cheaper to own and operate than gas-powered vehicles
- Most EVs on the market today have a range of over 200 miles on a single full battery, if your daily driving is under 40 miles, you may only need to charge once or twice per week
- There are lots of public charging opportunities in the Denver Metro Area to support destination and enroute charging
- Plugging in to a standard three-pronged outlet can add 5 miles to your range in 1 hour
- Level 2 chargers can add 25 miles to your range in 1 hour; DC Fast Charging can add 100 miles to your range in 30 minutes
- There are lots of incentives to lower the cost of your vehicle
- Start saving on your transportation expenses today. Visit URL to learn more about available charging in your area and EV dealerships near you.

#### Relevant Incentives

- [Xcel Energy Incentives](#) compiles EV resources, and relevant federal, state, and Xcel Energy incentives
  - **\$5,500 New EV Rebate for income-qualified Xcel Energy customers**
- [Xcel Energy EV Charging Programs](#) compiles Xcel Energy charging programs
  - **\$1,300 Income-Qualified Home Charger and Wiring Rebate**
- [CORE Electric Cooperative Electric Vehicles](#) compiles EV resources and CORE incentives for charging infrastructure
- [United Power Electric Vehicle Information Center](#) compiles EV resources and United Power incentives for EV charging infrastructure

#### Outreach Channels

- County EV webpage
- Direct mailers to tenants
- Social Media
- School districts (e.g., partner with schools to share information with students)

- Bulletin boards at community centers (e.g., recreation centers, libraries, pools)
- Multifamily bulletin boards
- Monitors at motor vehicle offices

## Lower-income Residents

### Key Assumptions

- Residents are interested in leasing or purchasing a new or pre-owned EV.
- Upfront cost and financing mechanisms present barriers to ownership.
- Lower-income residents may experience additional barriers, like renting or living in an area without access to convenient public charging.

### Key Messages

- The used EV market is growing in Colorado.
- Start saving today. Eligible Colorado residents can receive a rebate to recycle and replace their old or high-emitting vehicles with EVs.
- Start saving today. There are additional incentives to lower the cost of used and new vehicles, and EV charging, for income qualified residents.
  - Residents who qualify for LEAP, CARE, SNAP, or TANF can automatically qualify for Xcel Energy low-income EV rebate.
- Start saving today. EVs are more affordable than ever before and they're 50% cheaper to own and operate than gas-powered vehicles.

### Relevant Incentives

- [Xcel Energy Incentives](#) compiles EV resources, and relevant federal, state, and Xcel Energy incentives
  - **\$5,500 New EV Rebate for income-qualified Xcel Energy customers**
- [Xcel Energy EV Charging Programs](#) compiles Xcel Energy charging programs
  - **\$1,300 Income-Qualified Home Charger and Wiring Rebate**
- [CORE Electric Cooperative Electric Vehicles](#) compiles EV resources and CORE incentives for charging infrastructure
- [United Power Electric Vehicle Information Center](#) compiles EV resources and United Power incentives for EV charging infrastructure

### Outreach Channels

- County EV webpage
- Key community partners (e.g., Human Services, non-profit organizations)
- In-person events

## Outreach Channel Summary Template

The following table summarizes the key outreach channels identified as part of this plan. For each outreach channel, identify the channel lead (title), how often the channel can be leveraged and what outreach and engagement materials needs to be developed along with any key specifications for those materials (e.g., file type or size) and key deadlines. Use the other notes columns to capture any special instructions, circumstances, or nuances. The notes column may also be useful for indicating key successes or lessons learned, or common metrics to support tracking.

The Director of Communications is responsible for ensuring the completeness of this table, but all Community Engagement team members listed in the roles and responsibilities section in that chapter may play a role in completing this table. New outreach channels should be added as they are identified, and irrelevant outreach channels may be removed.

*Table 14: Outreach Channel Summary Table*

Outreach Channel	Channel Lead	Frequency	Outreach and Engagement Materials	Key Specs	Key Deadlines	Other Notes
<b>Adams County Social Media</b>	Amber F.	Weekly opportunities	Social media calendar with image cards and key messaging	PNG formatted for Facebook and Instagram	Content planned on Fridays	Don't want to post the same type of content more than 1x/wk Can be tied to zip code – opportunity to pair map with more targeted messaging
<b>Associations For Property Managers</b>						
<b>Stormwater Billing Inserts</b>						



<b>Registered Business Newsletter</b>						
<b>Business Appreciation Events</b>						
<b>NAIOP And DMCAR</b>						
<b>Development Review Comments</b>						
<b>In-Person Visits/Email Outreach</b>						
<b>Community Ride-And-Drives</b>						
<b>Neighborhood Meetings</b>						
<b>HOA Newsletters</b>						
<b>Website</b>						
<b>Direct Mailers To Tenants</b>						
<b>School Districts (E.G., Partner With Schools To Share Information With Students)</b>						

<b>Bulletin Boards At Community Centers (E.G., Recreation Centers, Libraries, Pools)</b>						
<b>Multifamily Bulletin Boards</b>						
<b>Monitors At Motor Vehicle Offices</b>						
<b>Key Community Partners (E.G., Human Services, Non-Profit Organizations)</b>						
<b>Dealerships</b>						

## Sample EV Webpage Outline

Develop a simple EV webpage, as a subset of the Sustainability page, to host key information and relevant resources for residents and businesses:

- General benefits of EVs
  - Financial savings (money off upfront costs and lower lifetime costs due to 50% reduced fuel and maintenance costs),
  - Improved air quality
  - Lower lifetime emissions
  - Fun to drive
  - Reduce noise pollution
  - Support Adams County sustainability efforts
- EV informational resources
  - EV and charging 101
  - Colorado EV registration costs and license plate or decal information
  - Permitting information
  - Map of charging locations
- EV financial resources
  - Adams County has multiple electric utilities – each utility might have different resources available to support the purchase/lease of EVs and the purchase/installation of home, workplace, or public charging
- Check content monthly to ensure it is up to date
  - Additional opportunities and incentives
  - Add relevant events

# APPENDIX D: FLEET DETAILS

## Analysis Methodology

To develop a fleet transition schedule, an analysis for short-term vehicle electrification procurement opportunities to meet Adams County's emission reduction goal was conducted.

The methodology for the fleet analysis first includes a baseline analysis of the existing light-duty fleet from the asset list of fleet vehicles provided by Adams County. This baseline analysis describes fleet assets by department, sites where vehicles are domiciled, and vehicle body class.<sup>3</sup> An inventory of the existing fleet charging infrastructure was created.

Adams County's current light-duty vehicle replacement key criteria that are considered in making vehicle procurement decisions include mileage, age, maintenance costs, depreciation costs, and potential for part-time use as a backup vehicle in the motor pool. Adams County considers a vehicle to be eligible for replacement at 10 years of age or 100,000 miles of use. Vehicle costs (both maintenance and depreciation) are then considered before a vehicle is recommended for replacement.

A refined subset of the light-duty fleet has been the focus of this EV replacement analysis. The Sheriff's department vehicles and residence-based vehicles were excluded from the fleet replacement analysis. The vehicles from the Sheriff's department were excluded from the analysis due to the essential nature of the vehicles in use. This department must prioritize meeting its duties without compromising operations. Adams County should begin to look at administrative and pursuit vehicles to pilot and understand the operation needs EVs can support as well as introduce EVs to these fleet users. As vehicles with proper upfits and the charging infrastructure support the operational needs, these vehicles will be eligible to be electrified and support the County's fleet electrification goal.

Residence-based vehicles were excluded as well because many residence-based vehicles are Sheriff's vehicles, and at-home vehicle charging would ideally involve home infrastructure upgrades to enable Level 2 charging. This additional capital investment, coupled with a lack of existing policies to address compensation for charging vehicles at home, ultimately caused this subset of the fleet to be filtered out of this analysis leading up to 2030. The fleet work plan in **Chapter 4** includes drafting and adopting a take home policy so that these vehicles can be eligible to be electrified.

The existing vehicle replacement plan for 2024-2028 was analyzed by vehicle body type and excluded Sheriff's department and residence-based vehicles. An alternative replacement plan was developed that extends from 2024 to 2030. The key criteria that are considered in making vehicle procurement decisions are mileage, age, vehicle body class, and potential for part-time use as a backup vehicle in the motor pool. The plan shifted to more vehicle body classes that

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<sup>3</sup> Vehicle body class was determined by the National Highway Traffic Safety Administration Vehicle Identification Number decoder database.

have additional available EV options such as sedans and SUVs where prioritized, while pickup trucks and cargo vans are included after the first few years.

In addition, vehicles that have high idle times present another great opportunity for operations and maintenance savings if transitioned to EVs. Adams County has been monitoring and tracking fleet vehicle idle events. Initial data set issues derived from telematics currently preclude using idle information in this preliminary assessment. As those data issues are resolved, they can be used to further refine priorities to replace appropriate vehicles that may address resulting air quality and fuel usage issues due to high idle with alternative vehicle technology.

Charging infrastructure was determined by short-term fleet needs as well as when and where vehicles in the alternative vehicle replacement plan vehicles are domiciled. Longer-term needs will continue to evolve as appropriate vehicles are electrified and facilities where those vehicles are domiciled are evaluated for their capacity to meet charging requirements.

## Fleet Baseline

The following section summarizes a 2023 baseline of Adams County’s fleet assets by department, site, and vehicle body class.

### Departments and Sites

The Sheriff’s department utilizes the most fleet vehicles, with 92 vehicles in use (**Table 15**). The site at which most vehicles are kept are employee residences (**Table 16**). Many of the Sheriff’s department vehicles are also residence-based vehicles.

*Table 15. Adams County Fleet Vehicles by Department*

Department Name	Vehicle Count	Avg. Annual Mileage	Avg. Vehicle Age
<b>Animal Shelter</b>	3	3,500	10
<b>Assessor</b>	14	2,184	6
<b>CED</b>	17	8,381	4
<b>Coroner</b>	3	7,790	6
<b>County Clerk</b>	3	6,488	5
<b>CWSB</b>	7	5,932	6
<b>District Attorney</b>	3	6,198	7
<b>Facilities Maintenance</b>	13	4,386	6
<b>Facility Operations</b>	2	14,074	5
<b>Fleet Operations and Maintenance</b>	2	6,397	4
<b>Headstart</b>	7	4,342	10
<b>Human Services</b>	5	9,487	5

<b>Office of Emergency Prep</b>	1	3,847	5
<b>Parks</b>	22	6,968	8
<b>Pool Vehicles</b>	24	8,174	13
<b>Public Works</b>	27	8,341	6
<b>Sheriff</b>	92	14,416	4
<b>Treasurer</b>	1	11,114	11
<b>Total</b>	<b>246</b>	<b>9,676</b>	<b>6</b>

*Table 16. Adams County Fleet Vehicles by Site*

<b>Site Name</b>	<b>Vehicle Count</b>	<b>Avg. Annual Mileage</b>	<b>Avg. Vehicle Age</b>
<b>Animal Shelter</b>	3	3,500	10
<b>Courthouse 1100</b>	2	7,516	7
<b>Da 1000</b>	4	6,804	7
<b>Detention Facility</b>	19	10,547	5
<b>Fairgrounds 9755</b>	7	4,907	8
<b>Government Center</b>	79	6,355	6
<b>Headstart 1850</b>	5	3,748	10
<b>Hsc 11860</b>	9	7,112	6
<b>Pw Central</b>	1	11,999	7
<b>Pw/Fleet Cc</b>	28	8,549	11
<b>Pw/Fleet Sb</b>	13	20,072	4
<b>Residence Based</b>	105	10,439	5
<b>So Administration</b>	4	6,597	8
<b>So Substation</b>	60	14,663	3
<b>South Park</b>	12	7,283	6
<b>Total</b>	<b>351</b>	<b>9,907</b>	<b>6</b>

*Table 17: Adams County Vehicle Site Location by Department Matrix*

		Site Name														
		Animal Shelter	Courthouse 1100	Da 1000	Detention Facility	Fairgrounds 9755	Government Center	Headstart 1850	Hsc 11860	PW Central	PW/ Fleet CC	PW/ Fleet SB	Residence Based	So Administration	So Sub-station	South Park
Department Name	Animal Shelter	3														
	Assessor						14									
	CED						17									
	Coroner												3			
	County Clerk						3									
	CWSB						7									
	District Attorney			3								18				
	Facilities Maintenance		1	1	1	1	6	2					1			
	Facility Operations						2									
	Fleet Operations and Maintenance									1	1					
	Headstart						5	2								
	Human Services							5								
	Office Of Emerg Prep						1						1			
	Parks					6					4		1			12
	Pool Vehicles						7				17					
	Public Works						16			1	6	4	14			
	Sheriff		1		18		5					8	70		60	
Treasurer						1										
Undetermined												1				

## Vehicles By Body Class

**Table 18** summarizes the number of vehicles per body class according to National Highway Safety & Transportation Administration (NHSTA) categorization, for all light duty fleet vehicles. The Sheriff's department vehicles and residence-based vehicles have been removed from the table but are included in supplemental charts in this section.

*Table 18. 2023 Fleet Inventory by Body Classification, Excluding Sheriff's Department and Residence-Based Vehicles*

Body Class	Vehicle Count
Pickup	82
Sedan	29
Sport Utility Vehicle (SUV)	24
Cargo Van	6
Minivan	4
Hatchback/Liftback/Notchback	3
Incomplete - Chassis Cab	3
Van	2
Incomplete - Cutaway	1
<b>Grand Total</b>	<b>154</b>

As seen in the table above, pickup trucks are the most common vehicle type in the subset of the fleet that we are analyzing for this fleet electrification plan, followed by sedans, and then SUVs. These body class categorizations can be examined according to site and department again in **Table 19** and **Table 20**.

*Table 19. Body Class by Department, Excluding Sheriff, and Residence-Based Vehicles*

Body Class	Department Name	Vehicle Count	Avg. Annual Mileage	Avg. Vehicle Age
Cargo Van	Coroner	1	8,573	6
	County Clerk	1	11,173	6
	Headstart	2	5,087	13
	Pool Vehicles	2	8,624	15
Hatchback/Liftback/Notchback	Assessor	2	174	1
	Pool Vehicles	1	2,405	9
Incomplete - Chassis Cab	Fleet Operations and Maintenance	1	30	3
	Parks	1	6,407	6
	Public Works	1	12,724	7
Incomplete - Cutaway	Animal Shelter	1		
Minivan	Facility Operations	2	14,074	5
	Human Services	1	6,476	7
	Pool Vehicles	1	8,322	14
Pickup	Animal Shelter	2	3,500	10



Body Class	Department Name	Vehicle Count	Avg. Annual Mileage	Avg. Vehicle Age
	CED	14	9,800	5
	Coroner	1	12,154	7
	CWSB	5	5,839	6
	Facilities Maintenance	12	4,628	6
	Fleet Operations and Maintenance	1	12,764	5
	Headstart	2	4,937	6
	Parks	19	6,585	8
	Pool Vehicles	3	7,755	15
	Public Works	23	8,819	6
<b>Sedan</b>	Assessor	9	1,980	7
	CED	1	3,175	2
	CWSB	1	8,386	8
	District Attorney	2	7,591	9
	Headstart	3	3,698	11
	Human Services	2	10,304	7
	Parks	1	10,362	9
	Pool Vehicles	8	6,541	13
	Public Works	1	4,507	8
	Treasurer	1	11,114	11
<b>Sport Utility Vehicle (SUV)</b>	Assessor	3	4,134	6
	CED	2	1,049	4
	Coroner	1	2,643	4
	County Clerk	2	4,146	5
	CWSB	1	3,939	2
	District Attorney	1	3,412	5
	Human Services	2	10,175	2
	Office Of Emerg Prep	1	3,847	5
	Parks	1	11,412	9
	Pool Vehicles	8	11,270	13
	Public Works	2	2,566	4
<b>Van</b>	Facilities Maintenance	1	1,488	6
	Pool Vehicles	1	2,451	16
<b>Grand Total</b>		154	6,869	7

Table 20. Body Class by Site, Excluding Sheriff, and Residence-Based Vehicles

Body Class	Site Name	Vehicle Count	Avg. Annual Mileage	Avg. Vehicle Age
<b>Cargo Van</b>	Government Center	1	11,173	6
	Headstart 1850	2	5,087	13
	Pw/Fleet Cc	2	8,624	15
	So Administration	1	8,573	6

Body Class	Site Name	Vehicle Count	Avg. Annual Mileage	Avg. Vehicle Age
<b>Hatchback/Liftback/Notchback</b>	Government Center	3	918	4
<b>Incomplete - Chassis Cab</b>	Pw/Fleet Cc	2	6,377	5
	South Park	1	6,407	6
<b>Incomplete - Cutaway</b>	Animal Shelter	1		
<b>Minivan</b>	Government Center	2	14,074	5
	Hsc 11860	1	6,476	7
	Pw/Fleet Cc	1	8,322	14
<b>Pickup</b>	Animal Shelter	2	3,500	10
	Courthouse 1100	1	7,808	7
	Da 1000	1	8,623	5
	Fairgrounds 9755	7	4,907	8
	Government Center	38	8,076	5
	Headstart 1850	1	6,331	6
	Hsc 11860	3	3,019	5
	Pw Central	1	11,999	7
	Pw/Fleet Cc	10	7,392	11
	Pw/Fleet Sb	5	10,567	6
	So Administration	2	7,585	11
	South Park	11	7,362	6
<b>Sedan</b>	Da 1000	2	7,591	9
	Government Center	15	3,744	8
	Headstart 1850	2	1,788	10
	Hsc 11860	3	9,375	9
	Pw/Fleet Cc	7	7,363	13
<b>Sport Utility Vehicle (SUV)</b>	Da 1000	1	3,412	5
	Government Center	14	4,407	6
	Hsc 11860	2	10,175	2
	Pw/Fleet Cc	6	12,597	12
	So Administration	1	2,643	4
<b>Van</b>	Detention Facility	1	1,488	6
	Government Center	1	2,451	16
<b>Grand Total</b>		154	6,869	7

### Procurement Process

Annually, each January, the operations manager for fleet management conducts a report of fleet assets to forecast eligible replacement vehicles based on average annual mileage. Following the report, the operations manager speaks with department staff who will have a vehicle

replaced to discuss the needs. Next, a budget is developed for the replacement vehicles and finished by June. Department budgets are due in July and the budget approval process finishes in October. The final budget is approved in December, so vehicles can be purchased throughout the next year.

Vehicles in the Adams County light-duty fleet are considered eligible for replacement when they reach an odometer reading of 100,000 miles or 10 years of age. Once this threshold is reached, the decision to replace a vehicle is also made based on vehicle costs, in terms of depreciation in value and maintenance. Some vehicles are reassigned to the County-wide motor pool, to be used as a backup vehicle when a department’s vehicle is unavailable. These decisions are ultimately made on an individual vehicle basis by the county fleet manager.

## Fleet Electrification Work Plan Details

### Get Established

#### Current Replacement Schedule

The County has a fleet replacement schedule for light duty vehicles and equipment (such as lawn mowers) in place for 2024 to 2028 (**Table 21**). When the Sheriff’s department vehicles and residence-based vehicles are excluded, the replacement plan organized by body class is as follows in **Figure 15**.

*Table 21. Count of Vehicles by Body Class and Year in Existing Replacement Plan, Excluding Sheriff’s Department and Residence-Based Vehicles*

Vehicle Type	2024	2025	2026	2027	2028	Total
Cargo Van	0	1	0	0	1	2
Incomplete - Chassis Cab	0	0	0	1	0	1
Minivan	0	0	0	0	2	2
Pickup	8	1	3	6	9	27
Sedan	0	1	1	1	2	5

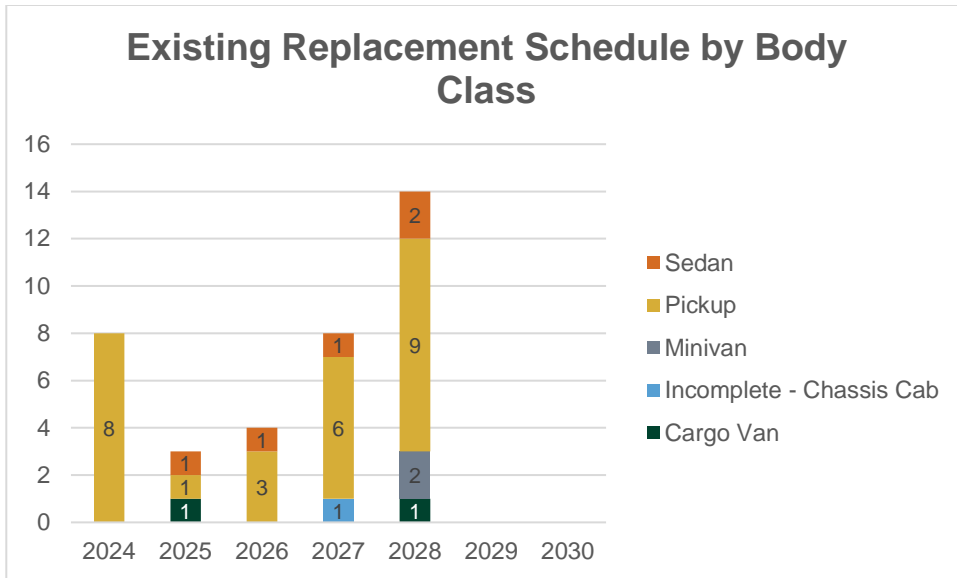


Figure 15. Existing Vehicle Replacement Plan by Body Classification for Non-Sheriff's Department and Non-Residence-Based Vehicles

### Proposed Alternative Replacement Schedule

To meet the goal of replacing 75% of eligible light duty vehicles with EVs by 2030, the County should shift focus on which body classes of vehicles are scheduled for replacement. Although electric pickup trucks are available for purchase, they are newer to the EV market and have less availability. Conversely, sedan-style EVs have been available on the market for longer. Therefore, an alternative replacement plan has been created placing more emphasis on replacing sedan vehicles earlier in the timeline, and emphasis on other body types (including SUVs and pickups) in later years. **Figure 16** highlights an idealized replacement plan that places emphasis on body classes that are more readily available in the EV market. This figure is based off the existing replacement plan, wherein 8 vehicles on average are to be replaced each year. Despite an emphasis on specific vehicle body classifications, this approach does not meet the 2030 goal.

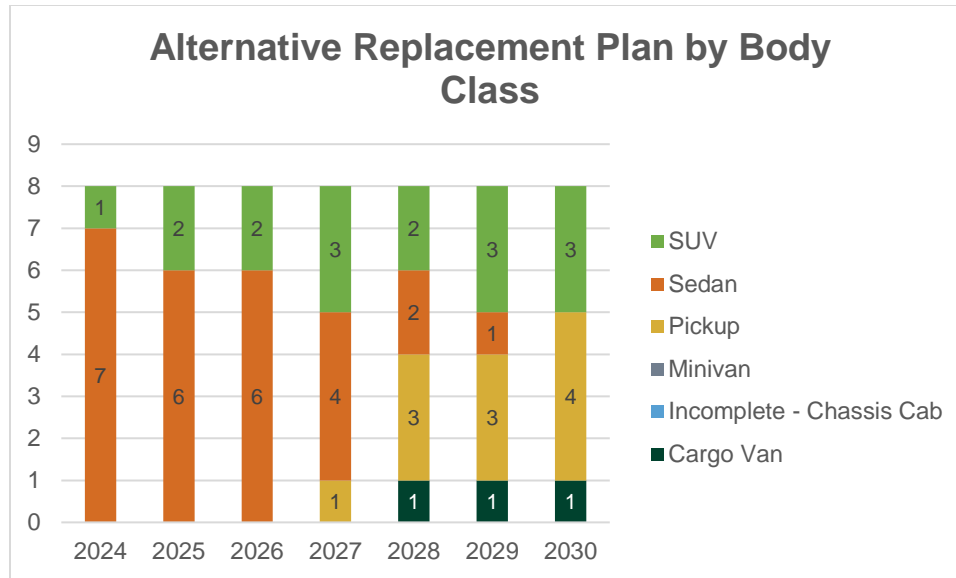


Figure 16. Proposed Replacement Plan by Body Classification for Non-Sheriff's Department and Non-Residence-Based Vehicles, Placing Earlier Emphasis on Vehicles with More Market Availability.

When considering the linear approach to achieve the County's 2030 goal, an alternative replacement plan for 15 vehicles per year would result in **Figure 17**.

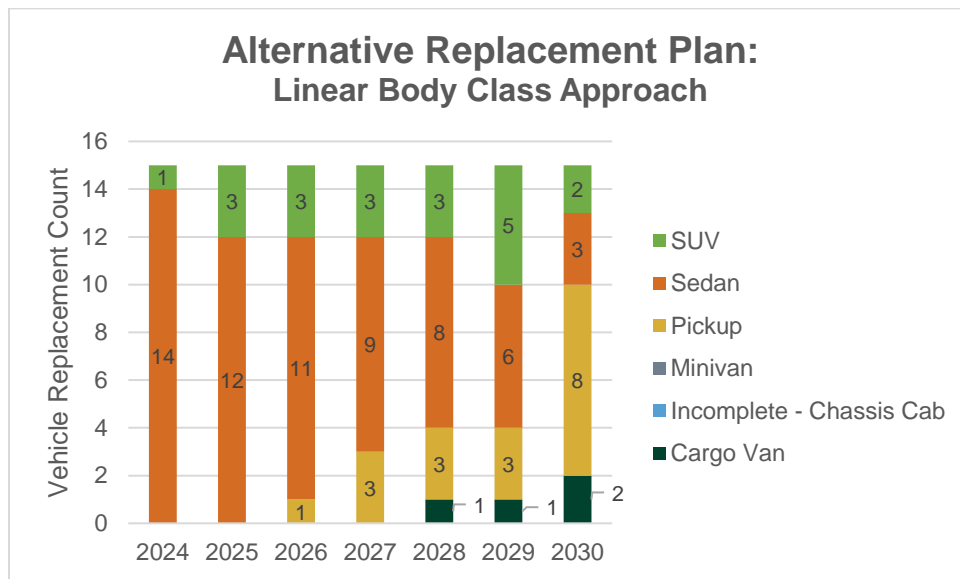
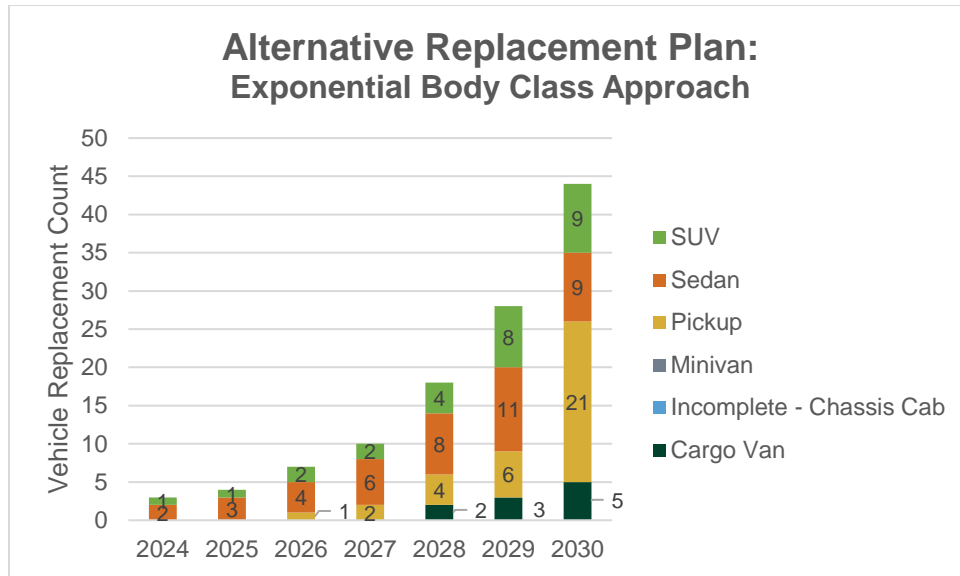


Figure 17. Proposed Replacement Plan by Body Classification for Non-Sheriff's Department and Non-Residence-Based Vehicles to Meet 2030 Goal.

When considering an exponential approach to achieve the County's 2030 goal, an alternative replacement plan would result in **Figure 18**.



*Figure 18. Proposed Replacement Plan by Body Classification for Non-Sheriff’s Department and Non-Residence-Based Vehicles to Meet 2030 Goal.*

Vehicles have been identified as eligible for replacement according to the existing thresholds of 100,000 miles or 10 years of age, which are not slated for replacement in the existing 2024 – 2028 plan. These vehicles have been detailed in **Table 22**. Example recommendations are outlined by year in **Table 23** through **Table 29**. Some vehicles that are in the existing plan are included in these tables and are denoted by an asterisk (\*) next to their vehicle identification number (VIN). In each year, eight replacement examples are provided based on the average number of vehicles in the existing 2024-2028 replacement plan outlined in **Table 21**.

Table 22. Eligible For Replacement – Not in Current Plan

Vin	Equipment Description	Body Class	Department Name Aw	Anticipated Year Eligible
1ftvf145x4nb31705	2004 Ford F150	Pickup	Parks Weed And Pest Control	2014
1gtfh15t061247159	2006 Gmc Savana	Cargo Van	Pool Vehicles	2015
1gdhg31u651911240	2005 Gmc C3500	Incomplete - Cutaway	Animal Shelter	2015
1fmcu59339kb27219	2009 Ford Escape Hybrid	Sport Utility Vehicle (Suv)	Pool Vehicles	2017
2g1wb55k289126964	2007 Chevrolet Impala	Sedan	Pool Vehicles	2017
2g1wb55k379340392	2007 Chevrolet Impala	Sedan	Pool Vehicles	2017
1gkdt13s772249166	2007 Gmc Envoy	Sport Utility Vehicle (Suv)	Pool Vehicles Government Center 01	2017
1gkdt13s872248690	2007 Gmc Envoy	Sport Utility Vehicle (Suv)	Pool Vehicles Government Center 01	2017
1gjhg39u171251872	2007 Gmc Savana	Van	Pool Vehicles Government Center 01	2017
1fmfu16548la69450	2008 Ford Expedition	Sport Utility Vehicle (Suv)	Pool Vehicles	2018
1gtek19028z268211	2008 Gmc Sierra	Pickup	Pool Vehicles	2018
1gtek19058z266467	2008 Gmc Sierra	Pickup	Pool Vehicles	2018
1gthk23k48f228307	2008 Gmc Sierra	Pickup	Fac Man (Sheriffs) 01	2018
1gthk24kx8e207868	2008 Gmc Sierra	Pickup	Parks Grounds Maintenance 01	2018
1gthk29k38e215089	2008 Gmc Sierra	Pickup	Pool Vehicles	2018
2g1wb57k191280692	2009 Chevrolet Impala	Sedan	Pool Vehicles Government Center 01	2019
2g1wb57k291279812	2009 Chevrolet Impala	Sedan	Pool Vehicles	2019

<b>Vin</b>	<b>Equipment Description</b>	<b>Body Class</b>	<b>Department Name Aw</b>	<b>Anticipated Year Eligible</b>
1fmeu73e39ua37474	2009 Ford Explorer	Sport Utility Vehicle (Suv)	Pool Vehicles	2019
2d4cn1ae4ar208651	2009 Dodge Caravan	Cargo Van	Headstart	2019
2d4cn1ae6ar208652	2009 Dodge Caravan	Cargo Van	Headstart	2019
2d8hn44e09r628677	2009 Dodge Grand Caravan	Minivan	Pool Vehicles	2019
1fahp3fn3aw207182	2010 Ford Focus	Sedan	Headstart	2020
2fabp7bv2ax129887	2010 Ford Crown Vic	Sedan	Pool Vehicles	2020
2g1wa5ek3a1230967	2010 Chevrolet Impala	Sedan	Headstart	2020
2g1wd5ek5a1127692	2010 Chevrolet Impala	Sedan	Pool Vehicles Government Center 01	2020
1fmju1g50def53686	2013 Ford Expedition	Sport Utility Vehicle (Suv)	Pool Vehicles	2020
1gcuhad46a1165933	2010 Chevrolet Express	Cargo Van	Pool Vehicles	2020
1g1za5eu4cf396330	2012 Chevrolet Malibu	Sedan	Treasurer	2021
3fahp0ga7br331406	2011 Ford Fusion	Sedan	Pool Vehicles	2021
1fmju1gt3gef57234	2016 Ford Expedition	Sport Utility Vehicle (Suv)	Pool Vehicles	2021
1gc2kvcg1bz167295	2011 Chevrolet Silverado 2500	Pickup	Parks South Parks	2021
1gc2kvcg5cz114939	2011 Chevrolet Silverado 2500	Pickup	Parks South Parks	2021
1c4rdjag6fc874079	2015 Dodge Durango	Sport Utility Vehicle (Suv)	Pool Vehicles Government Center 01	2022
1ftex1em2ekf28556	2014 Ford F150	Pickup	Public Works Hwy	2022
1ffx1ef1fkd99085	2015 Ford F150	Pickup	Ced Animal Management	2022
1ffx1ef9gke99324	2016 Ford F150 XI	Pickup	Ced Animal Management	2022



<b>Vin</b>	<b>Equipment Description</b>	<b>Body Class</b>	<b>Department Name Aw</b>	<b>Anticipated Year Eligible</b>
2c4rdgbg6gr372165	2016 Dodge Caravan	Minivan	Facility Operations Courier	2022
3fa6p0g75fr138818	2015 Ford Fusion	Sedan	Pool Vehicles	2023
2gnfleek0e6347536	2014 Chevrolet Equinox	Sport Utility Vehicle (Suv)	Parks Ranger	2023
3fa6p0g75er322638	2014 Ford Fusion	Sedan	Parks Special Events	2024
1ft7w2b62feb25099	2015 Ford F250	Pickup	Parks South Parks	2024
2g1wa5e30f1152745	2015 Chevrolet Impala	Sedan	Public Works Eng. Admin.	2025
2g1wa5e3xf1152526	2015 Chevrolet Impala	Sedan	District Attorney	2025
1ft7w2b60feb25098	2015 Ford F250	Pickup	Parks South Parks	2025
1ft7x2b6xfed57527	2015 Ford F250	Pickup	Fac Man (County Campus) 01	2025
1n4az0cp2fc315253	2015 Nissan Leaf	Hatchback/Liftback/Notchback	Pool Vehicles Government Center 01	2025
1fahp2d80gg116994	2016 Ford Taurus	Sedan	Human Services	2026
1fahp2d85gg119762	2016 Ford Taurus Se	Sedan	Assessor	2026
1fahp2d87gg119763	2016 Ford Taurus Se	Sedan	Assessor	2026
3fa6p0uu6hr131194	2016 Ford Fusion	Sedan	Assessor	2026
1c4rdjag6gc402160	2016 Dodge Durango	Sport Utility Vehicle (Suv)	Assessor	2026
3fa6p0uu8hr131195	2016 Ford Fusion	Sedan	Assessor	2026
1ftbf2b67ged29313	2016 Ford F250 XI	Pickup	Public Works Hwy	2026
1ftew1ep2hfa27757	2016 Ford F150 Xlt	Pickup	Public Works Drainage Main	2026
1ftfx1ef1fke25362	2016 Ford F150	Pickup	Parks Regional Utilities	2026
1ftmf1e82gke56830	2016 Ford F150 XI	Pickup	Cswb Neighborhood Services / Code.	2026

Vin	Equipment Description	Body Class	Department Name Aw	Anticipated Year Eligible
1ftmf1e84gke56831	2016 Ford F150 XI	Pickup	Cswb Neighborhood Services / Code.	2026
1ftmf1ef6gke99291	2016 Ford F150	Pickup	Public Works Hwy	2026
1gchtbe30g1268947	2016 Chevrolet Colorado	Pickup	Public Works Storm Water	2026
1gchtbe33g1273950	2016 Chevrolet Colorado Wt	Pickup	Parks Grounds Maintenance 01	2026
1g1zj5su1hf248132	2017 Chevrolet Malibu Hybrid	Sedan	Assessor	2027
1g1zj5su9hf247293	2017 Chevrolet Malibu Hybrid	Sedan	Assessor	2027
2g11x5s3xh9184880	2017 Chevrolet Impala	Sedan	Headstart	2027
2gnfleek0h6281073	2017 Chevrolet Equinox	Sport Utility Vehicle (Suv)	County Clerk Motor Vehicle	2027
2gnfleekxh6281162	2017 Chevrolet Equinox	Sport Utility Vehicle (Suv)	Assessor	2027
1ft7w2b61hee28040	2017 Ford F250	Pickup	Fac Man (Honnen/Dev Bldg) 01	2027
1ft7w2b66hee20306	2017 Ford F250 XI	Pickup	Parks Regional Utilities	2027
1ft7w2b69hed70534	2017 Ford F250 Supercrew	Pickup	Animal Shelter	2027
1ftfw1eg1hkd55392	2017 Ford F150	Pickup	Public Works Storm Water	2027
1ftfw1eg4hkd61722	2017 Ford F150 Supercrew	Pickup	Public Works Eng. Const. Insp.	2027
1ftfw1eg6hkd61480	2017 Ford F150	Pickup	Public Works Drainage Main	2027
1ftfw1eg8hkd61481	2017 Ford F150	Pickup	Public Works Eng. Const. Insp.	2027
1ftmf1e84hkd61705	2017 Ford F150	Pickup	Headstart	2027

<b>Vin</b>	<b>Equipment Description</b>	<b>Body Class</b>	<b>Department Name Aw</b>	<b>Anticipated Year Eligible</b>
1ftmf1e85hkd48154	2017 Ford F150	Pickup	Cswb Neighborhood Services / Code.	2027
1ftmf1e88hkd61707	2017 Ford F150 XI	Pickup	Ced Enviromental Services.	2027
1gazgnfg2h1295427	2017 Chevrolet Express	Van	Fac Man (Sheriffs) 01	2027
1c4rdjagxcjc355206	2018 Dodge Durango	Sport Utility Vehicle (Suv)	Assessor	2028
1fm5k8b82jgb78918	2018 Ford Explorer	Sport Utility Vehicle (Suv)	District Attorney	2028
1gnskfec4jr317129	2018 Chevrolet Tahoe	Sport Utility Vehicle (Suv)	Office Of Emerg Prep 01	2028
1fd7w2b67kec34986	2018 Ford F250 XI	Pickup	Public Works Hwy	2028
1ft7x2b60kec34989	2019 Ford F250	Pickup	Public Works Drainage Main	2028
1ftbf2b69jec65539	2018 Ford F250	Pickup	Fac Man (County Campus) 01	2028
1ftmf1e86hkd61706	2018 Ford F150	Pickup	Headstart	2028
1gc2kueg1jz290892	2018 Chevrolet Silverado 2500	Pickup	Fac Man (Human Services) 01	2028
1gc2kueg6jz289284	2018 Chevrolet Silverado 2500	Pickup	Fac Man (Human Services) 01	2028
Jalc4w167j7009678	2018 Isuzu Npr-Hd	Incomplete - Chassis Cab	Parks Weed And Pest Control	2028
1fm5k8b85kga46527	2019 Ford Explorer	Sport Utility Vehicle (Suv)	Public Works Eng. Const. Insp.	2029
1c6rr7kgxks663753	2019 Ram 1500	Pickup	Ced Building Safety.	2029
1fmjk1jt1kea12463	2019 Ford Expedition Max	Sport Utility Vehicle (Suv)	Coroner	2029
1gchtbea0k1271645	2019 Chevrolet Colorado	Pickup	Fac Man (County Campus) 01	2029
1gnskekc6kr329542	2019 Chevrolet Tahoe	Sport Utility Vehicle (Suv)	Ced Building Safety.	2029

<b>Vin</b>	<b>Equipment Description</b>	<b>Body Class</b>	<b>Department Name Aw</b>	<b>Anticipated Year Eligible</b>
2gc2kreg2k1208398	2019 Chevrolet Silverado 2500	Pickup	Fac Man (Parks Fairgrounds) 01	2029
2gc2kreg9k1209824	2019 Chevrolet Silverado 2500	Pickup	Fac Man (West Service Center) 01	2029
3c6jr7dg2kg588838	2019 Dodge Ram 1500	Pickup	Ced Enviromental Services.	2029
1fmcu9bz9lub73560	2020 Ford Escape Hybrid	Sport Utility Vehicle (Suv)	County Clerk Motor Vehicle	2030
1fmsk8bb1lgc67882	2020 Ford Explorer	Sport Utility Vehicle (Suv)	Public Works Eng. Admin.	2030
1fmsk8bb7lgc67885	2020 Ford Explorer	Sport Utility Vehicle (Suv)	Ced Development Services	2030
1fter1fh7lla53375	2020 Ford Ranger	Pickup	Parks Ranger	2030
1gc5yle79lf300904	2020 Chevrolet Silverado 2500	Pickup	Parks Regional Utilities	2030
3c6jr7dg0lg211264	2020 Ram 1500	Pickup	Public Works Eng. Const. Insp.	2030
3c6jr7dg8lg211173	2020 Ram 1500	Pickup	Ced Enviromental Services.	2030
3c6rr7kg4lg209779	2020 Ram 1500	Pickup	Public Works Hwy	2030
3c6rr7kg6lg205555	2020 Ram 1500	Pickup	Public Works Hwy	2030
3c7wrndl6lg307208	2020 Ram 5500	Incomplete - Chassis Cab	Fleet Opns & Maint	2030

The following series of tables contains example recommendations of vehicles that are eligible for replacement by year, and a corresponding EV suitable for possible replacement. These tables follow the idealized emphasis on body classification of vehicles in **Figure 16**. An asterisk (\*) denotes a vehicle that was already identified in the existing replacement plan outlined in **Figure 15** and **Table 21**.

*Table 23. Alternate Replacement Candidates for 2024, Excluding Sheriff Department Vehicles and Residence-Based Vehicles*

2024			
Vehicle to Replace			Replacement Vehicle
VIN	Make/Model	Department	Make/Model
1FMCU59339KB27219	2009 FORD ESCAPE HYBRID	POOL VEHICLES	Kia EV6
2G1WB55K289126964	2007 CHEVROLET Impala	POOL VEHICLES	Nissan Leaf
2G1WB55K379340392	2007 CHEVROLET Impala	POOL VEHICLES	Nissan Leaf
2G1WB57K191280692	2009 CHEVROLET Impala	POOL VEHICLES GOVERNMENT CENTER 01	Nissan Leaf
2G1WB57K291279812	2009 CHEVROLET Impala	POOL VEHICLES	Nissan Leaf
1FAHP3FN3AW207182	2010 FORD FOCUS	HEADSTART	Nissan Leaf
2FABP7BV2AX129887	2010 FORD CROWN VIC	POOL VEHICLES	Nissan Leaf
2G1WA5EK3A1230967	2010 CHEVROLET Impala	HEADSTART	Nissan Leaf

*Table 24. Alternate Replacement Candidates for 2025, Excluding Sheriff Vehicles and Residence-Based Vehicles*

2025			
Vehicle to Replace			Replacement Vehicle
VIN	Make/Model	Department	Make/Model
1GKDT13S772249166	2007 GMC ENVOY	POOL VEHICLES GOVERNMENT CENTER 01	Kia EV6
1GKDT13S872248690	2007 GMC ENVOY	POOL VEHICLES GOVERNMENT CENTER 01	Kia EV6
1FAHP2D89GG116993*	2016 Ford Taurus	HUMAN SERVICES	Nissan Leaf
2G1WD5EK5A1127692	2010 CHEVROLET Impala	POOL VEHICLES GOVERNMENT CENTER 01	Nissan Leaf
1G1ZA5EU4CF396330	2012 CHEVROLET Malibu	TREASURER	Nissan Leaf
3FAHP0GA7BR331406	2011 FORD FUSION	POOL VEHICLES	Nissan Leaf
3FA6P0G75FR138818	2015 FORD FUSION	POOL VEHICLES	Nissan Leaf
3FA6P0G75ER322638	2014 FORD FUSION	PARKS SPECIAL EVENTS	Nissan Leaf

Table 25. Alternate Replacement Candidates for 2026, Excluding Sheriff Vehicles and Residence-Based Vehicles

2026			
Vehicle to Replace			Replacement Vehicle
VIN	Make/Model	Department	Make/Model
1FMFU16548LA69450	2008 FORD EXPEDITION	POOL VEHICLES	Kia EV6
1FMEU73E39UA37474	2009 FORD Explorer	POOL VEHICLES	Kia EV6
2G1WA5E30F1152745	2015 CHEVROLET Impala	PUBLIC WORKS ENG. ADMIN.	Nissan Leaf
2G1WA5E3XF1152526	2015 CHEVROLET Impala	DISTRICT ATTORNEY	Nissan Leaf
1FAHP2D80GG116994	2016 FORD TAURUS	HUMAN SERVICES	Nissan Leaf
1FAHP2D85GG119762	2016 FORD TAURUS SE	ASSESSOR	Nissan Leaf
1FAHP2D87GG119763	2016 FORD TAURUS SE	ASSESSOR	Nissan Leaf
3FA6P0UU6HR131194	2016 FORD FUSION	ASSESSOR	Nissan Leaf

Table 26. Alternate Replacement Candidates for 2027, Excluding Sheriff Vehicles and Residence-Based Vehicles

2027			
Vehicle to Replace			Replacement Vehicle
VIN	Make/Model	Department	Make/Model
1FTVF145X4NB31705	2004 FORD F150	PARKS WEED AND PEST CONTROL	Ford F150 Lighting
1FMJU1GT3GEF57234	2016 FORD EXPEDITION	POOL VEHICLES	Kia EV6
1C4RDJAG6FC874079	2015 DODGE Durango	POOL VEHICLES GOVERNMENT CENTER 01	Kia EV6
2GNFLEEK0E6347536	2014 CHEVROLET EQUINOX	PARKS RANGER	Kia EV6
1G1ZJ5SU1HF248132	2017 CHEVROLET MALIBU HYBRID	ASSESSOR	Nissan Leaf
1G1ZJ5SU9HF247293	2017 CHEVROLET MALIBU HYBRID	ASSESSOR	Nissan Leaf
2G11X5S3XH9184880	2017 CHEVROLET Impala	HEADSTART	Nissan Leaf
2G1WA5E32F1152133*	2015 CHEVROLET Impala	CSWB NEIGHBORHOOD SERVICES / CODE.	Nissan Leaf

Table 27. Alternate Replacement Candidates for 2028, Excluding Sheriff Vehicles and Residence-Based Vehicles

2028			
Vehicle to Replace			Replacement Vehicle
VIN	Make/Model	Department	Make/Model
1GTFH15T061247159	2006 GMC SAVANA	POOL VEHICLES	Ford E-Transit
1GTEK19028Z268211	2008 GMC SIERRA	POOL VEHICLES	Chevrolet Silverado EV
1GTEK19058Z266467	2008 GMC SIERRA	POOL VEHICLES	Chevrolet Silverado EV
1GTHK23K48F228307	2008 GMC SIERRA	FAC MAN (SHERIFFS) 01	Chevrolet Silverado EV
1FMJU1G50DEF53686	2013 FORD EXPEDITION	POOL VEHICLES	Kia EV6
1C4RDJAG6GC402160	2016 DODGE Durango	ASSESSOR	Kia EV6
2G1WA5E39F1153425*	2015 CHEVROLET Impala	ASSESSOR	Nissan Leaf
3FA6P0G77ER322639*	2014 FORD FUSION	ASSESSOR	Nissan Leaf

Table 28. Alternate Replacement Candidates for 2029, Excluding Sheriff Vehicles and Residence-Based Vehicles

2029			
Vehicle to Replace			Replacement Vehicle
VIN	Make/Model	Department	Make/Model
2D4CN1AE4AR208651	2009 DODGE CARAVAN	HEADSTART	Ford E-Transit
1GTHK24KX8E207868	2008 GMC SIERRA	PARKS GROUNDS MAINTENANCE 01	Chevrolet Silverado EV
1GTHK29K38E215089	2008 GMC SIERRA	POOL VEHICLES	Chevrolet Silverado EV
1GC2KVCG1BZ167295	2011 CHEVROLET Silverado 2500	PARKS SOUTH PARKS	Chevrolet Silverado EV
2GNFLEEK0H6281073	2017 CHEVROLET EQUINOX	COUNTY CLERK MOTOR VEHICLE	Kia EV6
2GNFLEEKXH6281162	2017 CHEVROLET EQUINOX	ASSESSOR	Kia EV6
1C4RDJAGXCJC355206	2018 DODGE Durango	ASSESSOR	Kia EV6
3FA6P0UU8HR131195	2016 FORD FUSION	ASSESSOR	Nissan Leaf

Table 29. Alternate Replacement Candidates for 2030, Excluding Sheriff Vehicles and Residence-Based Vehicles

2030			
Vehicle to Replace			Replacement Vehicle
VIN	Make/Model	Department	Make/Model
1GJHG39U171251872	2007 GMC SAVANA	POOL VEHICLES GOVERNMENT CENTER 01	Ford E-Transit
1GC2KVCG5CZ114939	2011 CHEVROLET Silverado 2500	PARKS SOUTH PARKS	Chevrolet Silverado EV
1FTEX1EM2EKF28556	2014 FORD F150	PUBLIC WORKS HWY	Ford F150 Lighting
1FTFX1EF1FKD99085	2015 FORD F150	CED ANIMAL MANAGEMENT	Ford F150 Lighting
1FTFX1EF9GKE99324	2016 FORD F150 XL	CED ANIMAL MANAGEMENT	Ford F150 Lighting
1FM5K8B82JGB78918	2018 FORD Explorer	DISTRICT ATTORNEY	Kia EV6
1GNSKFEC4JR317129	2018 CHEVROLET TAHOE	OFFICE OF EMERG PREP 01	Kia EV6
1FM5K8B85KGA46527	2019 FORD Explorer	PUBLIC WORKS ENG. CONST. INSP.	Kia EV6



## **EV-First Procurement Resources**

### Steering Decisions Towards EV

By requiring vehicle procurement decisions to be made through a defined and formally adopted policy, decisions can be steered toward EVs and away from traditional vehicles. This policy will continue to take into account depreciation costs, maintenance costs, and existing vehicle age/mileage, but will also require additional considerations. Albuquerque, New Mexico adopted a formal [zero-emission vehicle-first procurement policy](#) and can serve as an example.

### Leasing

Explore leasing as a solution as there are potential advantages for leasing over purchasing a vehicle. Leasing a vehicle may be advantageous to leverage federal and state tax credits while reducing capital expenditures. Leasing a vehicle may be a better way to pilot a vehicle to determine if that vehicle fits the needs required and allows turning in a vehicle after three years to stay current with the latest technology. A [case study about several municipal fleets](#) that opted to lease vehicles highlights how leasing helped three fleets save money. Adams County can review the case study and speak with local vehicle dealerships to learn more about leasing options.

## **Charging Infrastructure Investment Schedule Guidance**

### Investing in On-Site Charging

A primary concern in accelerating the transition towards EVs in the Adams County fleet is charging availability. In the early fleet transition, for each vehicle procurement there should be an EV charger plug installed at the location where the vehicle is domiciled to charge the vehicle overnight. Charging needs and equipment options, including hard-wired or portable charging units, networked solutions, and equipment ownership options will need to be considered.

Based on existing EVs procured and the recommended alternative vehicle procurement plan, the following sites, in order of highest priority and timeline, were identified as priority for additional charging infrastructure.

- Government Center, 4430 South Adams County Pkwy, Brighton 80601
- PW/Fleet Commerce City, 4959 E 74th Ave, Commerce City 80022
- Headstart, 1850 E. Egbert St, Brighton 80601
- HSC, 11860 Pecos, Westminster, 80234
- DA, 1000 Judicial Center Parkway, Brighton 80601
- SO Administration, 332 N 19th Ave, Brighton 80601
- Fairgrounds, 9755 Henderson Rd, Brighton 80601
- South Park, 9500 Riverdale Rd, Thornton 80229

In the alternative vehicle procurement plan between 2024 and 2030, **Table 30** shows the number of vehicles at specific locations over the replacement schedule. Government Center has 25 vehicles and PW/Fleet Commerce City has 20 vehicles from 2024 through 2030 that will be electrified. Headstart and HSC have three vehicles, and the DA location has two vehicles identified to transition to EVs. Each SO administration, fairgrounds, and South Park has one vehicle identified for the short-term replacement schedule. To support all these vehicles, charging infrastructure is required to be installed. For more details for the installation process see [Finalize a charging infrastructure plan](#) in the Design section below.

*Table 30. Location and Number of Vehicles Identified in the Alternative Replacement Plan to Transition to EVs.*

Location Name <sup>4</sup>	2024	2025	2026	2027	2028	2029	2030	Total number vehicles
<b>Government Center</b>	1	4	4	4	3	4	5	<b>25</b>
<b>PW/Fleet Commerce City</b>	5	3	2	3	4	2	1	<b>20</b>
<b>Headstart</b>	1			1		1		<b>3</b>
<b>HSC</b>	1	1	1					<b>3</b>
<b>DA</b>			1				1	<b>2</b>
<b>SO Administration</b>					1			<b>1</b>
<b>Fairgrounds</b>						1		<b>1</b>
<b>South Park</b>							1	<b>1</b>

#### Residence-Based Vehicle Policy

The light-duty fleet currently has 105 vehicles that are kept at an employee’s residence. Of these vehicles, 70 are used by the Sheriff’s department. To enable Adams County to meet its fleet electrification targets, these residence-based vehicles should be given special consideration. By altering existing residence vehicle policies to include considerations for

<sup>4</sup> The order of the location names indicates the priority for installing EV charging for fleet vehicles based on the

electric vehicles, more vehicles can be considered for electrification. A policy will need to consider:

1. **Vehicle eligibility and reassignment:** An EV may be viewed as a more prestige vehicle or defined situations where the driver is ineligible. If a driver moves from one location that has home charging to one that does not, is it reassigned?
2. **Home charging:** Considerations about the costs for charger and installation, reimbursement limits for installation costs, expectations about the charging equipment appearance, and charger ownership.
3. **Electricity Reimbursement:** Reimbursement of costs for home, public, and workplace charging.
4. **Location Charging:** Defining expectations that vehicles can fully recharge to start the day regardless of the location they charge.
5. **Operator Behavior:** Outline best practices for charging vehicles such as charging the battery when it reaches about 40% and up to 80%.

## Design

### Finalize a charging infrastructure plan

- a. Use key criteria to develop the charging infrastructure plan for the sites for the short-term replacement schedule.
  - i. **Daily energy required:** The total amount of electricity energy your fleet vehicle will require to operate the duty cycle daily.
  - ii. **Charging opportunity:** The window of time daily that your fleet vehicle is available to charge (dormant periods while in-service, or off-service time).
  - iii. **Average power requirement:** The amount of electrical power, instantaneously, that your fleet needs to be able to charge fully within the charging opportunity time.
  - iv. **Charging needed per vehicle:** The amount of electrical power, instantaneously, that each individual vehicle needs to be able to charge fully within the charging opportunity time.
- b. Engage with the electric utility at each location to evaluate site infrastructure options.
- c. Work with County staff to identify, apply, and secure federal, state, or utility grant funding programs and leverage other projects, such as an energy savings performance contract.
- d. Determine installer, whether in-house or through a contractor.
- e. Project Manager for County Facilities Projects refer to the [Execute](#) section in Chapter 4 to coordinate procurement and installation of EV chargers.

## Execute

### Conduct staff training

- a. Before staff drive EVs, ensure they are trained in how to drive and charge and EV. Topics to cover in a training for drivers includes, but not limited to the following:
  - i. Review types of EVs (BEV and PHEV) and charging levels (Levels 1 and 2, DC fast charging)

- ii. Frequently asked questions such as what are the benefits of EVs, are EVs safe, and are EVs really more sustainable?
  - iii. Review Adams County's fleet electrification transition commitments and policies
  - iv. Getting to know the fleet's specific EVs
  - v. How to plan a trip in an EV including what to know if you choose an EV for your next trip and [how to charge at a ChargePoint station](#).
- b. Fleet staff such as vehicle technicians, operations staff, and first responders will need more technical training to service and respond to incidents involving EVs. Below are a few examples of resources Adams County could utilize.
- i. The Department of Energy's Alternative Fuels Data Center hosts a webpage, [Electric Vehicle Safety Training Resources for First and Second Responders](#), of known available training and educational resources specific to alternative fuel vehicles, with a particular focus on EV resources.
  - ii. The [National Alternative Fuels Training Consortium \(NAFTC\)](#) provides training for vehicle technicians and first responders.
  - iii. The [National Fire Protection Association \(NFPA\)](#) has training and information resources available including automakers [emergency response guides](#) for their vehicles.
  - iv. Automakers also offer some training to first responders. General Motors has resources available at <https://gmevfirstrespondertraining.com/>.

# APPENDIX E: MEASURING PROGRESS

Each year, the Sustainability Committee reports on the progress of Sustainable Adams County 2030 strategies and targets. This section provides guidance to help the Sustainability Committee effectively report on the strategies and targets addressed through this plan.

## Strategy Progress Reporting

Sustainable Adams County 2030 plan strategies are tracked annually using an estimated “percent complete” to show progress. The following section provides guidance to help estimate percent complete for the six strategies addressed through the adoption and implementation of this framework. This guidance was developed in accordance with the [strategy activation training](#) provided to Sustainability Committee members. The milestones presented below are suggestions and may be revised by the Sustainability Committee at any time.

### Strategy 12.2 Develop and implement EV procurement plan.

Use the following guidance to help you report out each year:

- **25% Complete:** Adams County completes all steps under “Plan.”
- **50% Complete:** Adams County completes the first step in the “Design” section.
- **75% Complete:** Adams County develops a charging infrastructure plan.
- **100% Complete:** Adams County has begun to procure EV charging stations and purchase or lease EVs and has developed training material for staff who drive the EVs.

To support the development of the tracking narrative and annual report, keep track of key milestones, EV successes in the fleet, and associated metrics like “amount of grant funding applied for,” “usage of EV chargers,” or “amount/cost of fuel saved.” This narrative can be used to understand how the fleet is succeeding, or what needs retooling, to support an increase in EV adoption in the Adams County fleet.

### Strategy 13.1 Prioritize locations for electric vehicle charging stations.

Use the following guidance to help you report out each year:

- **25% Complete:** Adams County completes all steps under “Establish Your Team.”
- **50% Complete:** Adams County completes first four steps in the “Assess Locations” section.
- **75% Complete:** Adams County completes all steps in the “Assess Locations” section.
- **100% Complete:** Adams County has begun to deploy EV charging stations, setting up how to assess operations and maintenance costs and is routinely coordinating across departments to assess site locations annually.

To support the development of the strategy tracking narrative and annual report, it is recommended that the County record key milestones and associated metrics like “number of locations prioritized.”

## Strategy 13.2 Leverage grant funding to implement prioritized investments in EV charging.

Use the following guidance to help you report out each year:

- **25% Complete:** The Adams County EV siting map was used to identify a list of potential public charging sites within unincorporated Adams County eligible for grant funding.
- **50% Complete:** Adams County applies for grant funding.
- **75% Complete:** Adams County is awarded grant funding.
- **100% Complete:** Grant-funded infrastructure is installed.

To support the development of the strategy tracking narrative and annual report, it is recommended that the County record key milestones and associated metrics like “amount of funding received” or “number of EV chargers installed”.

## Strategy 13.3 Develop and implement communitywide EV readiness plan

- **25% Complete:** A draft of an Adams County EV readiness plan is complete.
- **50% Complete:** This EV Readiness Plan is adopted and shared with all relevant County staff.
- **75% Complete:** All other strategies in this plan are marked as 50% complete.
- **100% Complete:** All strategies in this plan are marked as 100% complete.

## Strategy 13.5 Implement electric vehicle education events for the community

Use the following guidance to help you report out each year:

- **25% Complete:** Adams County completes all steps under “Establish your Team”.
- **50% Complete:** Adams County completes all steps in the “Build Your Foundation” section.
- **75% Complete:** Adams County develops a calendar of outreach events and key outreach and engagement materials.
- **100% Complete:** Adams County has begun to deliver key outreach and engagement materials through identified channels and is routinely coordinating across departments to conduct EV outreach annually.

To support the development of the tracking narrative and annual report, keep track of key milestones, outreach activities, and associated metrics like “number of businesses reached,” “number of website clicks,” “number of social media engagements,” “number of materials distributed,” or “number of subscribers.” This narrative can be used to understand what is working or what needs reimagining, to support an increase in EV adoption throughout the Adams County Community.

Adams County can also measure the change in public EV charging across the entire county (including incorporated areas) by looking up the number of EV chargers in Adams County on [EValueCO](#). Click the “Charging Deep Dive” tab. Open the filters menu on the right side of the webpage and expand the Location (County) is filter. Check Adams County. Record the number of EV charging plugs.

## Strategy 13.6 Partner with member communities to fund key fast-charging infrastructure.

Use the following guidance to help you report out each year:

- **25% Complete:** The Adams County EV siting map was used to identify a list of potential fast-charging sites within member communities.
- **50% Complete:** Adams County identified one or more willing partners to install fast-charging within member community.
- **75% Complete:** Adams County and partners enter project planning phase.
- **100% Complete:** One or more fast charging projects were installed.

To support the development of the strategy tracking narrative and annual report, it is recommended that the County record key milestones and associated metrics like “amount of funding received,” or “number of EV chargers installed”. This narrative can be used to understand what is working, how fleet charging and public charging is interacting, or what need to be adjusted to develop a robust EV charging network throughout Adams County.

## Target Tracking

### Achieve 5% share of registered electric vehicles by 2030

To update the “percent of electric vehicles registered” annually in the target metrics section of the Adams County Sustainability Tracker, look up the number of EVs on the road in Adams County on [EValueCO](#). Complete the following steps:

1. Click the “Vehicle Deep Dive” tab.
2. Open the filters menu on the right side of the webpage and expand the Location (County) is filter.
3. Check Adams County.
4. Record the number of EVs on the road.
5. Contact the County DMV to collect the number of light-duty vehicles registered in Adams County.
6. Determine the percent of EVs from these data points and record.

### Achieve 75% eligible light-duty fleet vehicles to EVs

Look up the number of EV in the fleet using the replacement schedule. Determine the number of fleet vehicles that are EVs and the total eligible vehicles to be replaced. Determine the percentage of EVs and record.

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