

# EV INFRASTRUCTURE INSTALLATION INFORMATION & PLANNING

## ROUTT COUNTY, CO

**Goal:**

- Install EV charging infrastructure at Routt County facilities to **facilitate fleet transition and support workforce** use of EV's, and fulfill relevant goals identified in the [Routt County Climate Action Plan](#) for the Transportation Sector:

GHG Emission Reduction Strategies and Actions						
Sector	Strategy (i.e., Intent)	Actions	Priority	Complexity	Tactics for Implementation	
Transportation	TS2. Increase adoption of electric vehicles such that 20% of registered vehicles in Routt County are EVs by 2030 and 95% are EVs by 2050.	Strategy TS2 is estimated to reduce community-wide emissions by 4% by 2030 and 20% by 2050.	TS2 A1. Adopt plans, policies, and codes to support the transition to electric vehicles or other clean power vehicles.	High	Low	TS2 A1 T2. Identify barriers to residential, workplace, and commercial charging in each community and across the county and modify codes in order to remove identified barriers;
						TS2 A1 T3. Review model EV codes and adopt building codes which require installation of wiring/conduit and/or charging infrastructure to enable future EV charging installation in all new residential, multi-family, and commercial construction;
						TS2 A1 T4. Integrate EV planning into other relevant County and community plans;
						TS2 A1 T5. Establish minimum requirements and/or incentives to promote designated EV parking for new and renovated construction;
			TS2 A2: Increase EV charging infrastructure (community, workplace, residential, commercial).	Medium	Low	TS2 A1 T6. Adopt code incentives such as fee reductions and/or permitting priority to support private investment in chargers.
						TS2 A2 T1. Develop a workplace charging program to facilitate charger integration for local agencies, businesses, education providers, medical centers, cultural centers, and recreation centers;
						TS2 A2 T2. Install Level 2 chargers near destinations with mid-range dwell times with the goal of providing one level 2 charger for every 12 registered electric vehicles;
						TS2 A2 T3. Install one or more Level 3 chargers in each community along the Highway 40 corridor;
						TS2 A2 T4. Support the adoption of mixed-level charging near multi-family or affordable housing to support both overnight and quick charge options;
						TS2 A2 T5. Facilitate and/or incentivize EV charger deployment at high-traffic areas such as state parks, airports, community centers, libraries, park-and-rides, ski resorts, the fairgrounds and other locations utilizing dwell time and siting criteria.
						TS2 A2 T6. Combine EV charging with solar where possible to reduce carbon footprint and enhance charging for short-range EVs.
						TS2 A2 T7. Identify existing incentives, create new incentives, and promote incentives for installing EV charging infrastructure.
			TS2 A3: Develop and disseminate education and outreach to support EV adoption.	High	Medium	TS2 A3 T1. Carry out education and outreach to the general public around EV basics, cost effectiveness, environmental benefits, models available batteries, winter operation, and other topics to stimulate EV adoption;
						TS2 A3 T2. Develop and implement an EV education and outreach program focused on workplaces;
						TS2 A3 T3. Carry out education and outreach to stimulate EV infrastructure development, especially for multi-family and residential charging;
						TS2 A3 T4. Host Ride-and-Drive events to stimulate interest and understanding of EVs;
TS2 A4: Promote fleet transition to electric or other clean energy vehicles.	Medium	High	TS2 A3 T5. Provide education and outreach information in multiple languages.			
			TS2 A4 T1. Perform fleet analysis and develop plans for fleet transitions to clean energy vehicles for municipal, county, school district, and private fleets;			
			TS2 A4 T2. Carry out a fleet vehicle sizing needs assessment to identify needed vehicle characteristics and compare to available clean energy models;			
			TS2 A4 T3. Identify opportunities to replace conventional school buses with low or no emitting school buses;			
					TS2 A4 T4. Carry out demonstration projects to show clean energy mid- and heavy-duty fleet vehicle feasibility;	
					TS2 A4 T5. Provide or facilitate incentives and grants for fleet conversions and/or charging/fueling stations;	
					TS2 A4 T6. Carry out education and outreach on fleet planning and transition to fleet owners and managers.	

**Overview & Information**

- Routt County Facilities:
  - Courthouse/Annex
  - Health and Human Services (HHS)
  - Justice Center
  - Combined Law Enforcement Facility (CLEF)
  - County Shops in Steamboat, Oak Creek, and Hayden
  - Fairgrounds
  - Yampa Valley Regional Airport (YVRA)
- HHS Building under construction with plans for conduit to be installed to support EV charging stations. All other locations would require retrofitting in identified locations
- K. Booth (YVRA) needs to get infrastructure (conduit) installed prior to paving expanded parking lots (work planned for 2023)
- Partnerships are being formed to more broadly examine installation of EV infrastructure within the County **for public use**
  - Climate Action Collaborative and Transportation Sector Group
  - [EV Readiness Plan](#) completed for Steamboat Springs in partnership with Routt County, Steamboat Ski and Resort Corp., and Steamboat Chamber

- Grant opportunities are currently available to support this type of work (Charge Ahead and others)
- Need research on charging platforms and YVEA plan for separate metering (potential implications)
- Other options: Hydrogen/Advanced Bio-fuels – unknown role possibly more niche (shipping, aviation, etc...)
  - Better possibility with heavy duty - not so much with light and medium duty vehicles at present
  - Priority on light and medium duty to 2030
  - Supply chain issues will continue
  - Late 2023 for Ford F150 Lightening for orders today (18 months out at least)

### Key Staff

- |   |  |
|---|--|
| • Jay Harrington – Routt County Manager           | • Kevin Booth – YVRA Director              |
| • Scott Cowman – Director of Environmental Health | • Garret Wiggins – Routt County Sherriff   |
| • Mike Mordi – Public Works Director              | • Caroline McClenahan – Grant Writer       |
| • Joe Stepan – Facilities Manager                 | • Julie Kennedy – Contracts and Purchasing |
| • Todd Carr – Building Department Director        |  |

### Decision Points:

- Decide on number of stations and specific locations for each facility or a phased plan based on priority and funding availability
  - Iterative approach with prioritization but aggressive to meet 2030 goals
  - Identify funding and funding assistance opportunities
- Decide on public/private access to charging stations at each campus
  - Private, public or mix of private/public at each facility except shop(s)
    - Probably better for the streets (5<sup>th</sup>/6<sup>th</sup>) and partnership with City and/or other stakeholders (Collaborative) as a part of a broader effort for charging stations accessible to the public
- Decide on Level (I, II, III)
  - Recommend Level II stations for fleet and workforce
  - Consider Level III charging for any public charging stations
  - Possibly Level III for law enforcement
- Funding
  - HHS – Charging stations not included in HHS construction budget (just conduit)
  - Identify grant assistance
    - [Charge Ahead Colorado](#) (80%/20%) up to \$9,000
      - Estimate \$11,250 (at least) for each dual port station
      - Track updates on new regional grant through Charge Ahead
      - Generally grant pays for equipment (level 2 and level 3)
      - Typically offered 3x/year
      - Cannot purchase or install prior to award being made “Notice to Proceed”

- Cannot run bid prior to meeting with the Colorado Energy Office (CEO)
    - Stations must have dedicated parking space for EV charging ONLY
    - Application must indicate station type (level) and whether or not station(s) are accessible to public
    - Stations must be operable for 5 year minimum (reporting required)
  - Other funding sources likely available (ARPA and other Federal or State Funding)
    - Other?
- Clarify YVEA plan for separate metering and potential implications
- Identify **payment platform** for any public charging stations
  - Charge Point – link bank account to Charge Point software
    - Look for interoperability (don't get locked in to one software)
      - Charge Point's software is a proprietary system and should be carefully studied
    - Security for fleet/work force
- Determine rules for use: how long one vehicle can stay at a station or how long after charge is complete
  - Employees and fleet – considerations for snow removal
  - Publicly accessed - need discussion with RCSO / SPD regarding parking enforcement

### Other Considerations

- Need mechanic training and certification (\$5K to \$7K)
- Make spaces available for private enterprise (cell tower example)
  - May become a business model that becomes popular in the future
- Most charging takes place over night at residences
- Increases in range and charge time on the horizon
- Sheriff's office – consider pilot program with EV
- Employee survey about who has or who is planning on owning an EV (priority)

### Recommendations:

#### 2022

- HHS:
  - Apply in Sept/Oct 2022 Charge Ahead grant for HHS building
    - \$18K ask w/ explanation for why funding assistance is needed
    - 2023 budget item (Joe Stepan)
- YVRA
  - Finalize needs and timelines with K. Booth/J. Harrington in consideration of upcoming construction projects (parking lot expansion)
  - Identify needs, potential locations, and number of stations
    - Consideration of rental car companies
- Fleet analysis and replacement schedule (M. Mordi)
- Steamboat Shop
  - Depending on need, identify location(s) and develop plans to install conduit
  - RFP for design and installation

## 2023

- HHS:
  - Install Level II chargers in parking lot for employees and fleet vehicles pending funding approvals
- YVRA
  - Install conduit ahead of paving for 2023 parking lot expansion
  - Identify needs, potential locations, and number of stations
    - Consideration of rental car companies
- Courthouse/Annex
  - Identify location(s) and develop plans to install conduit
  - Apply for grant funding
- CLEF
  - Consider pilot program with purchase of 1-2 vehicles
    - Need charging infrastructure first
  - Partner with the City?
- Steamboat Shop
  - Depending on need, identify location(s) and develop plans to install conduit
  - RFP for design and installation
- Fairgrounds
  - Depending on need, identify location(s) and develop plans to install conduit
- Develop plan to replace existing vehicles with EV (M. Mordi)
  - Possibly a pool vehicle and vehicles up for retirement
  - May wait to replace EH vehicles until supply chain issues improve and selection is better
- Look into Charge Point as payment platform (partnership with City)
  - Charge Point's software is a proprietary system and should be carefully studied

## 2024

- Courthouse/Annex
  - Install 2-4 Level IV chargers in the parking lot for employees and fleet vehicles
    - Confirm location, type and number of stations with BCC
    - Rules for use
  - Apply in Sept/Oct 2023 Charge Ahead grant
    - \$18K ask w/ explanation for why funding assistance is needed
    - 2023 budget item (Joe Stepan)
  - Need RFP for design and installation
- CLEF
  - Partner with City or consider projects for the future and timeline
- Justice Center
  - Consider project for 2024 or 2025 depending on success of other installations
- YVRA
  - Plan to install chargers depending on plan developed in 2023
- Update plans to replace existing vehicles with EV for 2023 (M. Mordi)