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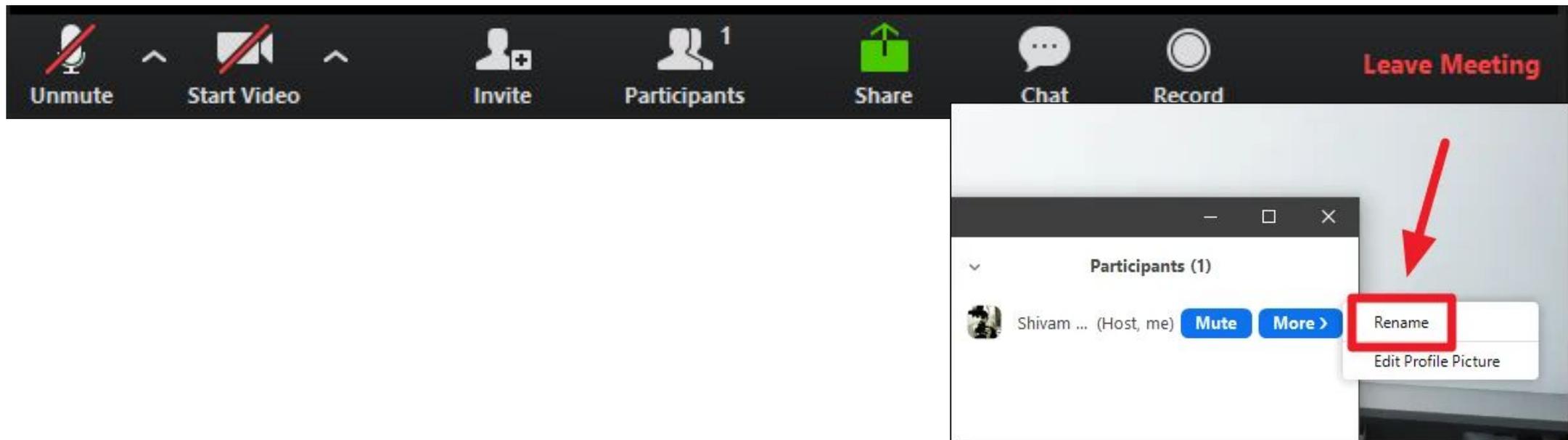
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# The Office of Innovative Mobility: Innovative Mobility Grants



# Today's Session: How to Participate

- All participants are automatically muted - if you have a question, please raise your hand and the host will unmute you
- Please update your participant name, if necessary
- This session will be recorded and the recording will be available afterwards.

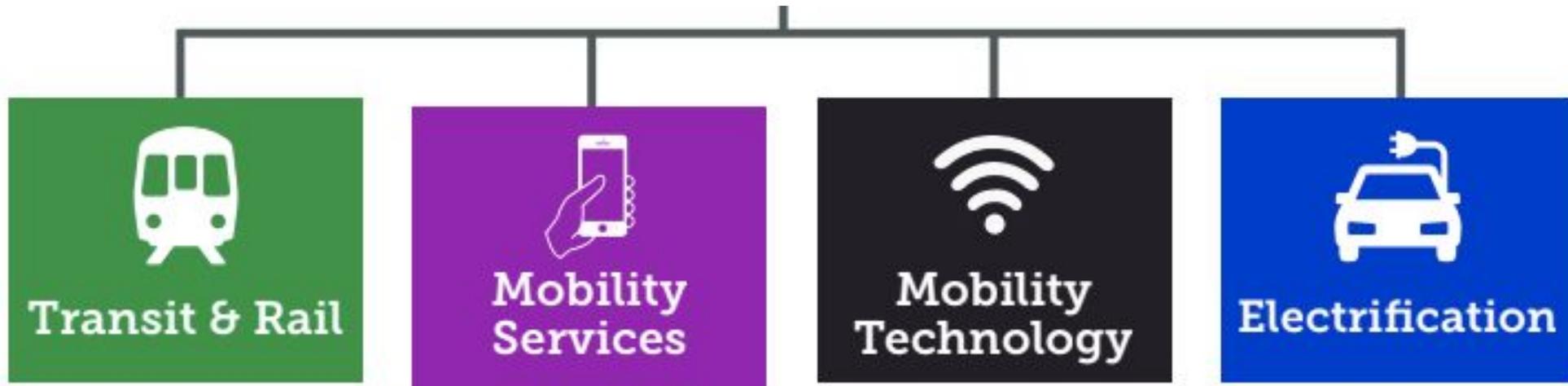




- Overview of CDOT's Office of Innovative Mobility (OIM)
- Purpose of OIM Grants
- Strategic Transportation Demand Management Grants
- Electrification and Energy Grants
- Mobility Technology Grants
- Questions & Answers
- Next Steps & Closing



*Reduce pollution in our air and congestion on our roads by expanding multimodal transportation options using traditional and emerging mobility technologies.*





# Purpose

- To help stakeholders with financial assistance to implement programs and projects to support the goals and objectives of the Office of Innovative Mobility's core mission
- This one call for projects encompasses funding and opportunities from OIM's Mobility Services, Electrification & Energy, and Mobility Technology Programs





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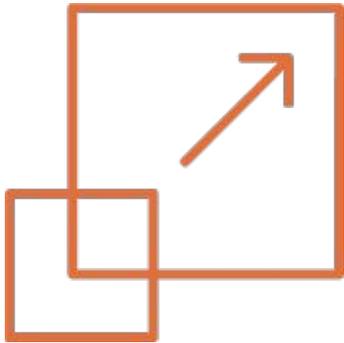
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# Strategic Transportation Demand Management Grants



# What is Transportation Demand Management?

**Transportation Demand Management (TDM)** is an umbrella term for the application of strategies and policies that facilitate more efficient use of our limited transportation resources. These typically fall into three categories:



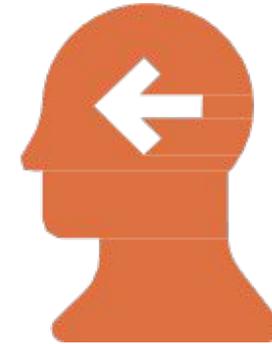
## **CAPACITY CREATION**

Reallocation of road space to more efficient modes, increased levels of transit service, etc.



## **NETWORK MANAGEMENT**

Transit timetable changes, active traffic management strategies, etc.



## **TRAVELER BEHAVIOR CHANGE**

Efforts that reduce unnecessary trips, shift trips away from single occupancy vehicles, redirect trips to less congested corridors and retime trips away from peak travel times.



## TDM Seed Funding Grants

- Providing resources for new TMOs and TDM programs to form in currently underrepresented areas of the state.

## TDM Innovation Grants

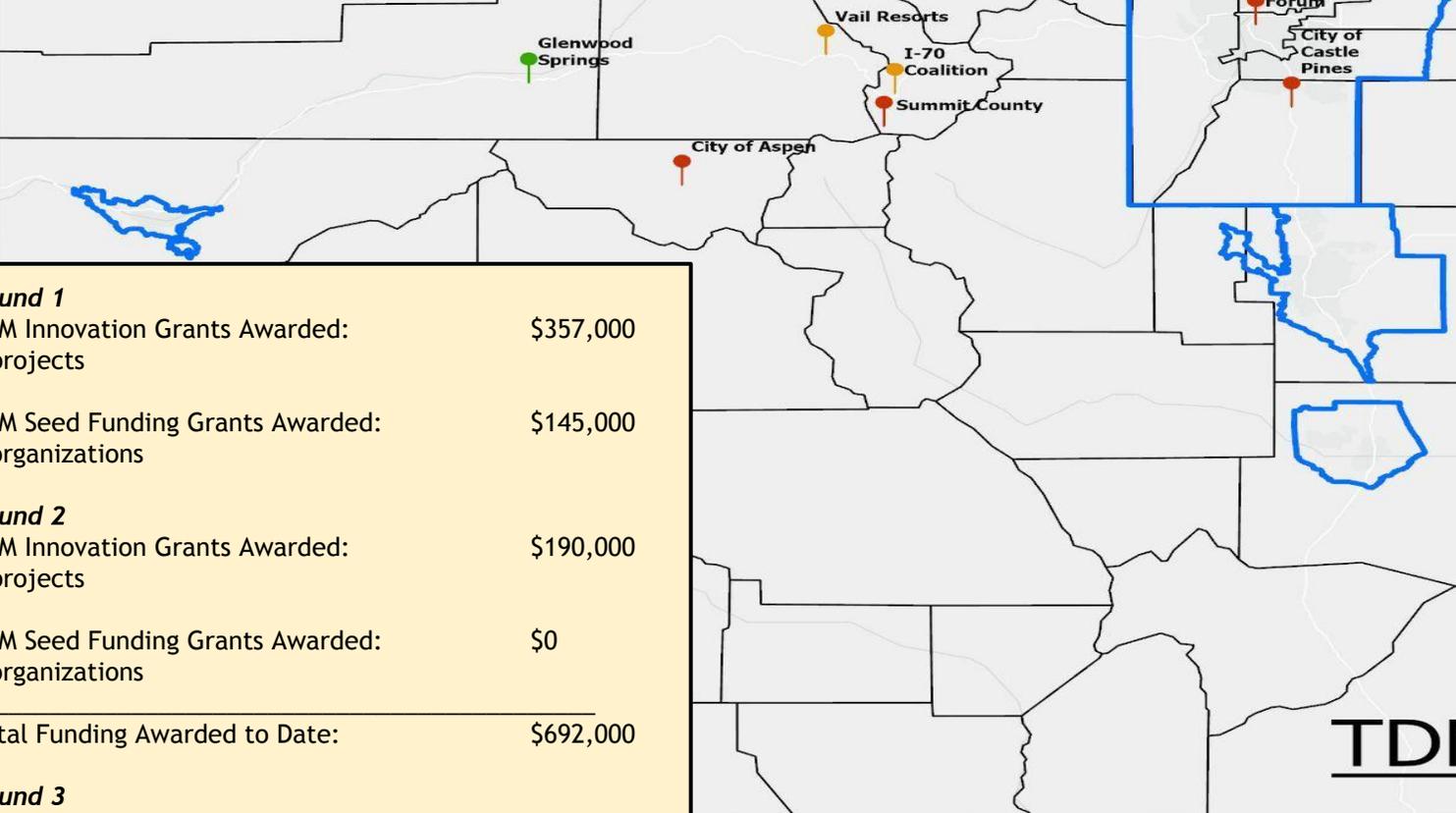
- Incentivizing innovative ideas that reach new audiences or address gaps in current practice.
- Scaling up existing best practices to expand their impact.

# Past Grant Awards

## Type

- TDM Innovation Round 1
- TDM Innovation Round 2
- TDM Seed Funding

- MPO Boundaries
- County Boundaries



<b>Round 1</b>	
TDM Innovation Grants Awarded:	\$357,000
7 projects	
TDM Seed Funding Grants Awarded:	\$145,000
2 organizations	
<b>Round 2</b>	
TDM Innovation Grants Awarded:	\$190,000
4 projects	
TDM Seed Funding Grants Awarded:	\$0
0 organizations	
<b>Total Funding Awarded to Date:</b>	<b>\$692,000</b>
<b>Round 3</b> (Current Notice of Funding Opportunity)	

## TDM Grant Awardees

Esri, HERE, Garmin, FAO, NOAA, USGS, EPA, NPS



# TDM Innovation Grant

To support innovative projects that:

- **Demonstrate** a TDM technology or approach that is new to the region, application, or audience; *or*
- **Expand** a technology or approach from a limited pilot to a wider geography, application, or audience;
- *or* **Scale** an existing, proven approach, program, and/or technology to a regional or statewide scale through the use of partnerships.

<b>Grant award size</b>	\$20,000 to \$50,000
<b>Match requirement</b>	20% recommended, with preference given to cash over in-kind matches
<b>Applicant Eligibility</b>	All organizations are eligible
<b>Length of Award</b>	1-year following notice to proceed
<b>Total Funding Available</b>	\$560,000



# TDM Innovation Grant

Innovation Grants Evaluation Criteria (R2)		
<b>Trip Reduction Impact</b>	25%	What is the project’s potential to reduce trips, both within the grant period and long-term?
<b>Innovation</b>	25%	To what extent does the project meet one or more of the criteria for innovation?
<b>Project/Applicant Readiness</b>	20%	What is the project’s likelihood of success given the applicant’s readiness, project plan, timeline, budget, and partnerships?
<b>Equity</b>	10%	How does the project consider and address underserved populations and equity gap areas in existing TDM practice?
<b>Long-Term Impact</b>	20%	What steps will the applicant take to disseminate their findings and ensure the continuing impact of the project (e.g. mentorship, case study, report-outs).



# TDM Seed Funding Grant

To establish new Transportation Management Organizations (TMOs) and permanent, dedicated TDM programs in currently un-represented areas of the state.

<b>Grant award size</b>	\$20,000 - \$100,000
<b>Match requirement</b>	20% recommended; preference given to larger matches
<b>Applicant Eligibility</b>	Governmental entities, non-profits (must provide affirmation from local government)
<b>Length of Award</b>	2 years following notice to proceed



# TDM Seed Funding Grant

Seed Funding Grants Evaluation Criteria (R2)		
<b>Need &amp; Existing Transportation Challenges</b>	35%	To what extent does the proposed service area have a demonstrated need and audience for a dedicated TDM program? (e.g. congestion, mobility issues, planning precedent)
<b>Applicant Readiness</b>	30%	What is the program's likelihood of success given the applicant's readiness, plan, timeline, budget, and partnerships?
<b>Equity</b>	15%	How does the program consider and address underserved populations in the area, especially those underserved by traditional TDM practice?
<b>Long-Term Sustainability</b>	20%	To what extent does the applicant demonstrate a plan and capacity for financial self-sustainability beyond the initial grant period?



# Project Examples/Past Projects

## Innovation Examples

- Car Sharing Pilots to help underserved communities
- Cooperating with the I-70 Coalition to adding features to Carpool Apps
- Increasing ridership for carpools, vanpools, biking programs for underserved communities
- Trailhead Shuttles
- Development of a new TDM Plan for municipalities

## Support Examples

- TDM Marketing and Awareness Campaign
- Bike Parking Studies
- Trip Reduction Data Collection Pilots
- Community outreach



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# Innovative Mobility Grant: Electrification & Energy



# Electrification and Energy Grant Purpose

- *To develop and attract the skills and talent necessary to meet the changing demands of the transportation electrification sector. This grant addresses multiple challenges that Colorado and the wider mobility and electrification industry are facing: talent shortages, gap in new skillsets, and the growing need for training due to technology advances.*
- *To expand public awareness and education around EVs and increase the public understanding of their benefits, capabilities, and availability*





# Funding Categories

The solicitation will have two categories for Electrification & Energy funding:



## ZEV Workforce Development

- To increase training for clean transportation jobs and workers, specifically for disproportionately impacted communities
- To ensure an adequate workforce to deploy and maintain ZEVs and ZEV infrastructure, including transit ZEV workforce development
- To ensure an inclusive, equitable, and accessible workforce transition and provide benefits to disproportionately impacted communities



## E-Mobility Education and Awareness

- To provide educational and awareness programs to educate the public including EV Ride and Drives and EV showcases
- To support grassroots organizations in accelerating electrification efforts
- To deliver STEM education on the benefits of ZEVs, including support for K-12
- To increase ZEV knowledge within disproportionately impacted communities



# Examples of Eligible Projects

All projects must be in Colorado and benefit Coloradans. Examples of eligible projects include:

- Developing a new ZEV curriculum and/or integrating new ZEV curriculum into existing curriculum
- Scholarships for existing ZEV training, certification, and/or degree programs provided by others
- Purchase of ZEV-specific equipment and materials necessary to provide training and/or ongoing service and repair of ZEVs
- Implement and/or expand ZEV education programs for K-12 students
- Host community events that will raise public awareness of ZEVs such as EV ride and drives or EV showcases
- Community outreach with local partners, local communities, and grassroots organizations to identify appropriate methods to increase e-mobility adoption



# Electrification and Energy Grants

## ZEV Workforce Development and E-Mobility Education and Awareness Grant Summary

<b>Grant Award Size</b>	\$20,000 - \$100,000
<b>Match Requirement</b>	A local cash or in-kind match of 20% of the requested grant funds is encouraged but not required
<b>Applicant Eligibility</b>	All organizations are eligible. However, all projects must be in Colorado and benefit Coloradans.
<b>Length of Award</b>	1-year following notice to proceed
<b>Total Funding Available</b>	\$750,000



# Selection Criteria

<b>Electrification &amp; Energy Grants Evaluation Criteria</b>		
<b>Equity, Inclusivity, and Local Impact</b>	30	To what extent does the project consider and address underserved populations? Does the project benefit and encourage participation of underrepresented groups? What is the level of stakeholder engagement? Does the project benefit existing communities including involvement of local community and business partners?
<b>Demonstrated Project Need</b>	25	Why is a grant needed for the project? How does the project consider and address ZEV workforce and education gaps and needs?
<b>Applicant Qualifications</b>	20	What is the project's likelihood of success given the applicant's qualifications and experiences? To what extent does the applicant demonstrate a plan and capacity for financial self-sustainability beyond the initial grant period?
<b>Project Readiness</b>	15	What is the project's likelihood of success given the applicant's readiness, project plan, timeline, budget, and partnerships?
<b>Replicability and Scalability</b>	10	Is the project easily replicable? Can the project scale to a wider geographic area? Will the lessons learned be transferable?



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# Innovative Mobility Grant: Mobility Technology



# What are Connected Vehicles?

- Connected Vehicle (CV) technology enables vehicles, equipment, and applications to communicate directly with roadway operators and infrastructure in real-time
- CV technology can help improve safety, system efficiency, and mobility on Colorado roadways
- Roadside Units (RSU) and On-Board Units (OBU) are critical components to connected vehicle infrastructure. These devices enable vehicle to vehicle (V2V) and vehicle-to-infrastructure (V2I) communication. Data collected and shared through CV infrastructure includes real-time traffic and weather conditions and signal-timing notifications

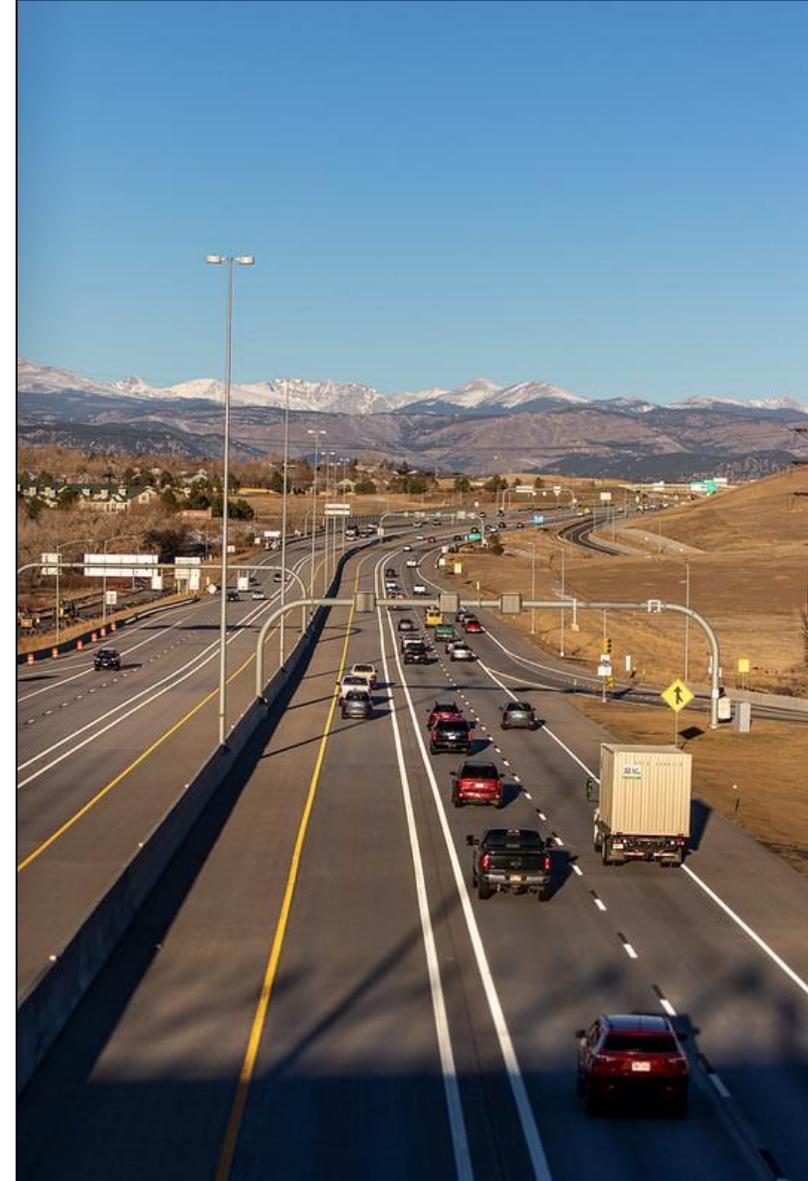




# Mobility Technology Opportunity

## Deployment of Roadside and On-Board Units in Local Jurisdictions

- CDOT will provide a one-time gift of up to 10 Roadside Units (RSUs) and 10 onboard units (OBUs) to each awarded local jurisdiction.
- CDOT will also provide project support





## Goals

1. **Increase** safety and efficiency of Colorado Roadways
2. **Accelerate** the adoption of connected vehicles in local jurisdictions
3. **Expand** Colorado's network of connected roadways
4. **Support** local jurisdictions in connected vehicle pilots
5. **Discover** new use cases for connected vehicles





# Roadside and On-Board Unit In-Kind Requirements

## Applicant Requirements

- Must be a municipal or county jurisdiction (roadway infrastructure owner-operators) within Colorado
- Applicants must agree to share the generated CV data with CDOT
- CDOT will assist in project facilitation (including providing an installation vendor) for the RSU. The jurisdiction may also choose to do the own installation if preferred). Applicants must have a dedicated staff contact that will be available during planning, design and installation
- Applicants must be willing to enroll in CDOT's CV Security Credential Management System (SCMS)
- Must submit license application to the Federal Communications Commission for operation of the units. (CDOT will provide guidance and support on how to do this).

## Project Eligibility Requirements

- Project must be located within Colorado
- Selected area must have connectivity backhaul (the network necessary to connect equipment to a subnetwork) or be willing to work with CDOT identify potential communication and connectivity backhaul options.



# Examples of Eligible Use Cases

- Traffic Signal Priority
  - Buses
  - Snow Plows
- Safety Message Broadcasting
  - Real-time work zone locations and road closures





# Roadside and On-Board Unit In-Kind Selection Criteria

RSU and OBU Local Jurisdiction Deployment Evaluation Criteria		
<b>Project and Applicant Readiness</b>	35%	Does the applicant have a good intended use for CVs? Have they selected a roadway(s) that would benefit from CVs? Do they have the means (people power, motivation, expertise) to run the project effectively? What is the project's likelihood of success based on readiness, plan, timeline, and budget? Is the applicant willing to learn about CVs and developing a CV implementation plan?
<b>Application Quality</b>	10%	Is the application well-written and well-planned?
<b>Project Benefit</b>	25%	How does this project benefit the applicant and the public in both the near- and long-term?
<b>Reporting, Data Usage, and Sharing</b>	15%	Can the applicant provide required quarterly reports on the pilot? How does the applicant plan to use the CV data? Are specific data use cases feasible and well thought out? Does the applicant agree to share CV data with CDOT?
<b>Long-Term Sustainability</b>	15%	To what extent does the applicant demonstrate a plan and capacity for financial self-sustainability beyond the initial grant period?



# Roadside and Onboard Unit In-Kind Grant

## Summary

<b>Opportunity Award Size</b>	Up to 10 roadside units and 10 onboard units
<b>Match Requirement</b>	None
<b>Applicant Eligibility</b>	Must be a municipal or county jurisdiction located within Colorado
<b>Length of Award</b>	Project support 1-year following notice to proceed
<b>Total Equipment Available</b>	10 RSUs/OBUs for up to 10 applicants



# Preliminary Next Steps

**Grant Applications Due**

**December 9th, 11:59 PM**

**Notice of Awards**

**Mid-January, 2023**

**\*\*\*These dates are tentative and are subject to change**



## **Grant Website:**

**<https://www.codot.gov/programs/innovativemobility/oim-grants-1/oim-grants>**

## **General Questions:**

Please check the FAQ document on the OIM Grants Webpage. Any questions not answered on the document send to:

**[dot\\_innovativemobility@state.co.us](mailto:dot_innovativemobility@state.co.us)**