



Roadside and On-board Unit In-Kind Grant

Round 1: FY22/23 Projects

Rules & Selection Criteria

Program Purpose

Beginning in 2016, Colorado began designing for the development of connected vehicle (CV) technology on Colorado roadways. 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 CV Infrastructure. OBUs are transceivers mounted in a vehicle that collect vehicle data and can relay real-time information, to other connected vehicles or RSUs along a roadway. RSUs are mounted communications devices along a roadway that can communicate with OBUs in vehicles and transfer information back to a centralized hub. Colorado's initial pilot featured the deployment of CV technology along the I-70 Mountain Corridor from Golden, CO to Vail, CO. Since the initial CV deployment footprint, CDOT has a strategy to deploy CV technology on over 400 miles of Colorado's roadways.

To increase adoption of CVs and expand the network, CDOT will give RSUs and OBUs to eligible applicant jurisdictions. For this first round, CDOT will give ten RSUs and ten OBUs to up to ten local jurisdictions and provide one-year of project support.

Program Goals

- Increase the deployment of connected vehicles
- Support local jurisdictions in connected vehicle pilots
- Expand Colorado's network of connected roadways
- Discover new use cases for CVs and the generated data
- Increase the efficiency of local jurisdiction's operation on Colorado roadways
- Increase safety on Colorado roadways

Applicant Eligibility Requirements

- Eligible applicants include local municipal and county jurisdictions (roadway infrastructure owner operators) within Colorado.
- Applicants must agree to share the generated CV data with CDOT.
- CDOT will assist the facilitation (including providing an installation vendor for the RSU), however 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).
- Applicants must agree to submit a license application to the Federal Communications Commission for operation of the units.

Project Eligibility Requirements

Project must be located within Colorado. Selected project area must have connectivity backhaul (the network



necessary to connect equipment to a subnetwork).

Funding background

Funds for these programs will be provided by the CDOT Office of Innovative Mobility (OIM).

Eligible Project Locations

Any roadway within Colorado. Selected road(s) must have fiber or cellular backhaul or be willing to work with CDOT to identify potential communication and connectivity backhaul options.

Funding Requirements

Eligible projects must request a minimum of two and a maximum of ten RSUs and OBUs apiece. Preference will be given to programs that identify sustainable funding commitments and a robust deployment plan.

Application Process

Applications should be submitted along with letters of support from impacted or participating entities.

Project Funding Evaluation and Selection Process

The Roadside and On-board Unit In-Kind Grant was released October 28, 2022. Applications are due by December 9, 2022. Please submit your application to dot_innovativemobility@state.co.us.

CDOT will establish an internal scoring and selection panel to assist with scoring and evaluating projects. Participants may include staff from various CDOT and state agency divisions:

- CDOT Office of Innovative Mobility
- CDOT Office of Data Management
- CDOT Division of Maintenance and Operations - Intelligent Transportation Systems (ITS)

Each member of the panel will review the applications and assign points to the criteria based on information contained in the project application forms.

Evaluation Criteria

Category	Weight (%)	What are we assessing?
Project and Applicant Readiness	35	Does the applicant have a good intended use for CV's? 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 develop a CV implementation plan?
Application Quality	10	Is the application well-written and well-thought out?
Project Benefit	25	How does this project benefit the applicant and the public in both the near and



		long-term?
Reporting, Data Usage, and Sharing	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?
Long-Term Sustainability	15	To what extent does the applicant demonstrate a plan and capacity for financial self-sustainability beyond the initial grant period?

Award Conditions

- All project scopes of work are subject to review and approval by CDOT. The submitted and approved project scope becomes the work that the applicant at a minimum must complete.
- Each applicant awarded funds will provide a signed scope of work and will enter an intergovernmental agreement with the Colorado Department of Transportation (CDOT) to implement the project depending on the type, location and other characteristics of the project. CDOT is the ultimate steward of these state funds. CDOT will specify requirements for status reporting and reimbursement requests.
- Applicant must agree to share all data collected with CDOT and connect its RSU network with the greater CDOT network.
- Approved applicants will be required to report data based on the application scoring criteria.
- Select applicants may be required to attend a post-project debrief with CDOT and other state agency staff.
- Select applicants may be invited to present their projects to the Statewide Transportation Demand Management work group, Statewide Transportation Demand Management Conference, or other platform upon completion.