

**DRAFT Colorado Plan for the National Electric
Vehicle Infrastructure (NEVI) Program**

Comments due by 11:59 PM on Friday, July 22

**Submit comments to:
cdot_innovativemobility@state.co.us**

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DRAFT

Introduction

The Colorado National Electric Vehicle Infrastructure Plan (NEVI Plan) was developed over the course of 2022 in partnership between the Colorado Department of Transportation (CDOT) and the Colorado Energy Office (CEO) and with the input and engagement from a broad range of stakeholders. It establishes the State of Colorado's approach to the investment of an estimated \$57 million dollars over the next five years using new federal funds included in the Infrastructure Investment and Jobs Act (IIJA) with the intent of building a national network of electric vehicle (EV) fast-charging stations. The NEVI Plan is a framework that will be further developed, refined, and adjusted in future months and years to account for changes in technology, the EV market, national and state policy, and other areas that may impact the future landscape. Colorado intends to manage these changes in partnership with federal, state, and local partners as well as the broad array of private, public, and nonprofit stakeholders who have collaborated to build the state's current EV charging network and associated programs.

The State of Colorado has long supported the greater deployment of EVs and other zero-emission vehicles (ZEVs) across multiple vehicle classes as a means of reducing the environmental impacts of the transportation sector and achieving its state greenhouse gas (GHG) reduction targets in the process. Experts agree that the availability of publicly-accessible EV charging is a critical supporting element that must be in place before widespread EV adoption can occur, and as a result Colorado state agencies, local governments, nonprofits, and the private sector have been collaborating to fund, construct, and operate more than 1,500 Level 2 and DC Fast-Chargers (DCFC) across the state over the course of the past decade. The addition of new NEVI funding to these existing resources will allow Colorado to target remaining gaps in the network, especially those in rural and disproportionately impacted communities, while upgrading existing chargers in need of greater capacity and addressing the growing demand for charging in the parts of the state that already see higher EV adoption and usage. It will also help lay the groundwork for future charging projects focused on medium- and heavy-duty commercial users.

The NEVI program presents an opportunity for Colorado to redouble its existing efforts in EV charging deployment while offering new and enhanced support to rural and disproportionately impacted communities facing the greatest barriers to equitable transportation electrification. In doing so, it will not only extend the charging network to new areas of the state, but also bring with it new opportunities and benefits for Coloradans as we work to build a more just and sustainable mobility future for all.

Development and Adoption Timeline of the State NEVI Plan

CDOT and CEO have jointly developed the State of Colorado NEVI Plan over the course of 2022. If the plan is approved by the Joint Office of Energy & Transportation (Joint Office) in September, then implementation will commence immediately in late 2022 and carry forward into future years. Below is a brief summary of plan development and future implementation milestones as anticipated at this time. All future dates are estimates and subject to changing conditions.

November 15th, 2021

- Infrastructure Investment & Jobs Act (IIJA) signed into law

February 10th, 2022

- Alternative Fuel Corridors Round 6 Request for Nominations and 90 Day NEVI Program Guidance issued

- Stakeholder engagement begins as staff share key NEVI program details with interested and impacted parties

March - May, 2022

- Development of Round 6 Alternative Fuel Corridor nominations
- Staff analyze existing and potential future corridor designations, identifying gaps and opportunities to support NEVI Program focus areas

May 13th, 2022

- Round 6 Alternative Fuel Corridor nominations due
- Colorado nominates 6 additional corridors for EV designation

May - July, 2022

- Stakeholder engagement and drafting of Colorado NEVI Plan
- Staff employ online meetings, in-person events, online surveys, a recorded webinar, and two public online meetings to share information with stakeholders, solicit public input, identify state priorities and strategies, and revise the draft NEVI Plan prior to submission

July 5, 2022

- Colorado receives confirmation that its 6 nominated EV corridors have been designated

August 1st, 2022

- Colorado NEVI Plan submitted to the Joint Office

August - September, 2022

- Ongoing stakeholder engagement, scoping and review of CDOT-CEO interagency agreement(s), development of grant program criteria and Request for Application(s) (RFA(s)), and creation of grant tracking systems.

September 30, 2022

- Anticipated NEVI Plan approval by the Joint Office.

October 2022

- Execution of CDOT-CEO IAA for program management, finalization of grant program criteria and initial RFA, stakeholder outreach on upcoming grant opportunities

November 2022

- Solicitation published

January - February 2023

- Review, scoring, and selection of initial project proposals

March 2023

- Initial round of awards and development of agreements

Spring/Summer 2023

- Agreements executed and implementation begins

Following the initial round of grant solicitation and award, Colorado anticipates repeating the cycle on a semi-annual basis as additional funds become available in future federal fiscal years. CDOT, CEO, and partner agency staff will also consider future opportunities to adjust the timing, frequency, and focus of future solicitations to best meet the needs of stakeholders and the traveling public.

State Agency Coordination

The State of Colorado has a long and fruitful history of interagency collaboration in support of the alternative fuels and electric vehicle sector that will be leveraged to ensure the successful deployment of NEVI funds. Since 2014, CDOT has partnered with the Colorado Energy Office (CEO) and Regional Air Quality Council (RAQC) to develop and implement the Charge Ahead Colorado (CAC) grant program, which funds Level 2 and DC Fast-Charging installations statewide. As of July 2022, more than 1,500 chargers have been installed using CAC funds, with hosts ranging from local governments and private businesses to school districts, electric utilities, multifamily housing developments, community nonprofits, state agencies, automotive dealerships, and state and national parks, among others.

This foundation of interagency partnership was strengthened and expanded in 2017 as CDOT, CEO, and RAQC partnered with the Colorado Department of Public Health and Environment (CDPHE) to develop and implement the state's Volkswagen Settlement Beneficiary Mitigation Plan (BMP), which allocated approximately \$67.8 million across funding programs focused on EV charging, zero-emission truck and shuttle bus grants, and support for transit electrification across Colorado. In the ensuing years, the four partner agencies have awarded more than \$50 million of the state's overall \$68.7 million allocation, meeting regularly to align application deadlines, match requirements, scoring criteria, project siting, and data collection and reporting.

A combination of settlement and state funding allowed for Colorado's next EV program offering, the DC Fast-Charging Corridors Program released by the CEO in 2018. This program awarded \$10.33 million via a request for application (RFA) to construct highway-oriented DC fast-charging at 34 locations across major highway corridors in Colorado, with the goal of making EV travel possible across every region of the state. Implementation of this program over multiple years required extensive coordination between CDOT, CEO, the private sector developer, utilities, and dozens of site hosts on topics ranging from environmental clearances to highway signage. The processes and institutional relationships built as part of the DC Fast-Charging Corridors Program were further refined for the development and implementation of the similar DC Fast-Charging Plazas Program that followed in 2020 as a means of supporting projects serving high-mileage taxi and Transportation Network Company (TNC) fleets (as well as those without access to home charging) in denser, urban environments. This program was expanded in 2021 to include all parts of the state, and the majority of proposals submitted in the Fall 2021 funding round are located outside the Denver Metro Area.

Most recently, CDOT and CEO have expanded their interagency partnerships to new work with additional state agencies. For instance, since 2020 the Colorado Tourism Office (CTO) has been closely engaged in the management and promotion of the Electrified Byways and Tourism Program, which is focused on deploying Level 2 and DC fast-charging infrastructure in rural areas as a means of local economic development and improved rural EV access. Both agencies have also provided technical support to Colorado Parks & Wildlife (CPW) in their partnership with Rivian to deploy public Level 2 charging at all 43 state parks in Colorado, which is currently underway. Since 2021, all Colorado state agencies have been closely engaged in Governor Polis's effort to electrify the state fleet through a \$5 million investment in charging infrastructure at state government facilities.

The implementation of Colorado's NEVI plan and resulting programs will build upon this broad and durable foundation of interagency collaboration, allowing for rapid and effective deployment while offering continuing opportunities for refinement and innovation in the coming years.

Public Engagement

Colorado's stakeholder engagement process for the development of the NEVI Plan was based on a strong foundation from previous statewide planning efforts. CDOT, CEO, and their partner agencies have engaged in extensive stakeholder engagement over the past several years to develop a number of planning documents related to sustainable transportation, EV charging, climate change mitigation, and other related topics. These include the [Colorado Electric Vehicle Plan \(2020\)](#), [Colorado Greenhouse Gas Pollution Reduction Roadmap \(2021\)](#), [Colorado Transit Zero-Emission Vehicle Roadmap \(2021\)](#), [Colorado Clean Truck Strategy \(2022\)](#), and Colorado EV Equity Study (2022), among others. In all of the above cases, Colorado state agencies sought to engage a wide spectrum of public, private, nonprofit, and other stakeholders to ensure that the plans themselves, and the policies and programs that resulted from them, reflected the needs and priorities of all Coloradans.

For the creation of its NEVI Plan, CDOT developed a public outreach plan to identify and engage with the stakeholder groups identified in the NEVI guidance. The plan included the creation of resources to help educate stakeholders on the goals and elements of the NEVI program as well as the release of a public survey to solicit feedback and recommendations from stakeholders and the traveling public on what they view as the benefits, drawbacks, and ideal locations for EV charging in their communities and across the state. A summary of some key elements of NEVI stakeholder outreach is below:

Resources

- **Webpage:** A NEVI specific webpage was developed to keep stakeholders and other interested parties informed and offer an opportunity to provide input. The website includes links to general EV resources, a recorded webinar explaining the program, and specific information on the NEVI program. In addition, the website housed an online survey to gather direct feedback. CDOT will maintain and update the NEVI webpage with future solicitations for applications, list of awarded projects, and other pertinent news.
- **Email Subscription List:** Interested parties can subscribe via the webpage for email updates on the development of the NEVI Plan and future project solicitations, awards, and other news. CDOT will maintain the stakeholder mailing list and will keep interested parties updated throughout implementation of the five-year program.
- **Other Plan Stakeholders Mailing List:** CDOT maintained a mailing list of stakeholders from previous climate and electrification efforts including interested parties from the Clean Truck Strategy and the state's Greenhouse Gas Emission Reduction group. Stakeholders from the mailing lists were notified via email regarding the NEVI planning effort.
- **Social Media:** Content related to the NEVI planning process was developed and shared via CDOT's social media channels, including Facebook and Twitter.

Outreach Activities

- **Stakeholder Presentations:** Between May and July, CDOT engaged directly with identified stakeholder groups and interested organizations through virtual presentations to discuss the NEVI Plan. During this time period, staff presented to a total of 20 groups, including the following:

Date	Meeting/Event	Event Type
5/18/22	Transportation Commission (TC) Meeting	In-person
6/1/22	ZEV Workforce Development Meeting	Virtual
6/2/22	Colorado EV Coalition (CEVC) Equity Subgroup	Virtual
6/9/22	Transportation Environmental Resource Council (TERC)	In-person
6/9/22	CDOT Statewide Plan Team Meeting	Virtual
6/15/22	Colorado EV Coalition (CEVC) Transit Subgroup Meeting	Virtual
6/16/22	Colorado EV Coalition (CEVC) Full Group Meeting	Virtual
6/22/22	Colorado Bike to Work Day	In-person
6/26/22	Denver Earth Day Remastered	In-person
6/30/22	The Alliance Center - Regenerative Recovery Coalition Group	Virtual
6/30/22	Colorado EV Coalition Beneficial Electrification (BE) Subgroup	Virtual
7/7/22	CDOT Statewide Transportation Advisory Committee (STAC)	Virtual
7/11/22	Drive Clean Colorado eFleets Working Group Meeting	In Person
7/12/22	Pueblo Area Council of Governments (PACOG) Transportation Advisory Commission	Virtual
7/13/22	Colorado State University (CSU) - Parking and Transportation Services	Virtual

7/14/22	GreenLatinos Colorado	Virtual
7/14/22	CDOT Statewide Plan Team Meeting	Virtual
7/19/22	NEVI Plan Public Meeting #1	Virtual
7/19/22	NEVI Plan Public Meeting #2	Virtual
7/19/22	Colorado Mining Association Group Meeting	Virtual

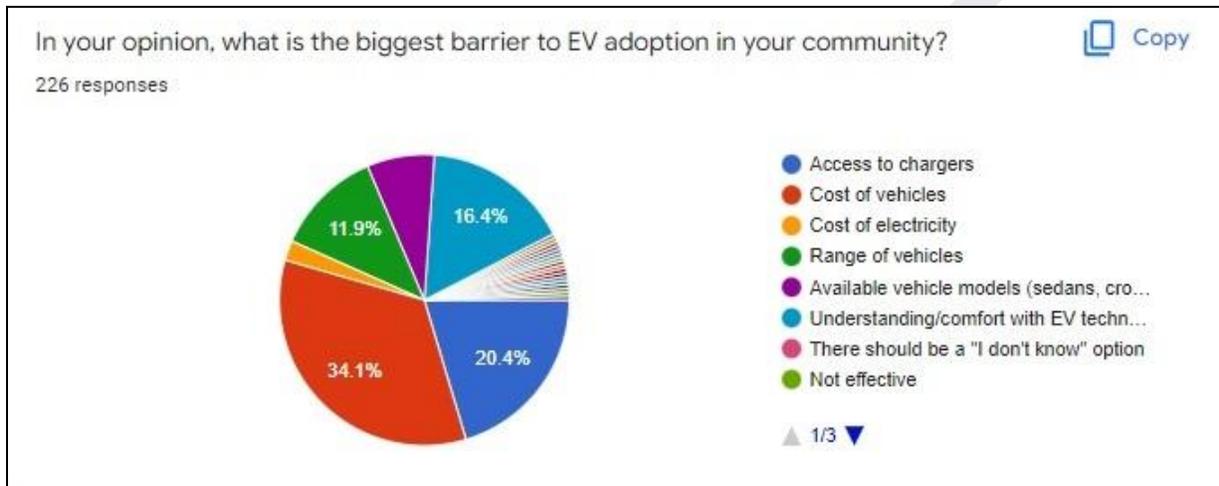
- **Online Survey:** CDOT developed an online survey to gather direct feedback from stakeholders and the general public. The online survey was made available to the public on June 6, 2022 and remained open until July 22, 2022. During this time period, more than 225 individuals provided input via the survey. This public feedback was reviewed and incorporated into the draft and final versions of the Colorado NEVI Plan to ensure that it supports the goals and priorities of the traveling public.
- **Public Events:** CDOT participated in community events, such as Bike-to-Work Day and Earth Day Remastered, in order to spread the word about the NEVI Plan development and distributed flyers to community members on the NEVI planning process. CDOT will continue to engage in EV, climate, and energy-related events in the state to engage with and facilitate feedback from the public during future phases of NEVI program development and implementation.
- **Individual Interviews:** CDOT will directly reach out to community organization leaders to solicit feedback. This approach will prioritize charging service providers and disproportionately impacted communities. While finding community leaders can be a challenging task, the state will utilize our existing resources such as a list of community contacts from our Equity Office and participating in community events to continue identifying and gaining support from diverse community representatives.

Participation in community events indicated some knowledge gaps in terms of public charging, as some members of the public are not familiar with the available charging options and range of vehicles on the market. Continuous outreach and the iterative development of new educational materials and engagement tools can help to increase awareness and public understanding of EVs and the state’s charging network, and CEO is currently developing a statewide EV education and awareness campaign aimed at doing so. Colorado believes that bridging this knowledge gap will increase Coloradans’ confidence in transportation electrification, and therefore spur greater EV adoption in future years. In these future educational materials and campaigns, CDOT will work to ensure that underrepresented stakeholders have an equitable opportunity for participation in program development and implementation. The state will continue to engage with service providers to gain perspective on potential locations for charging sites, along with the best approaches for site selection, site host recruitment, and overcoming barriers for station implementation.

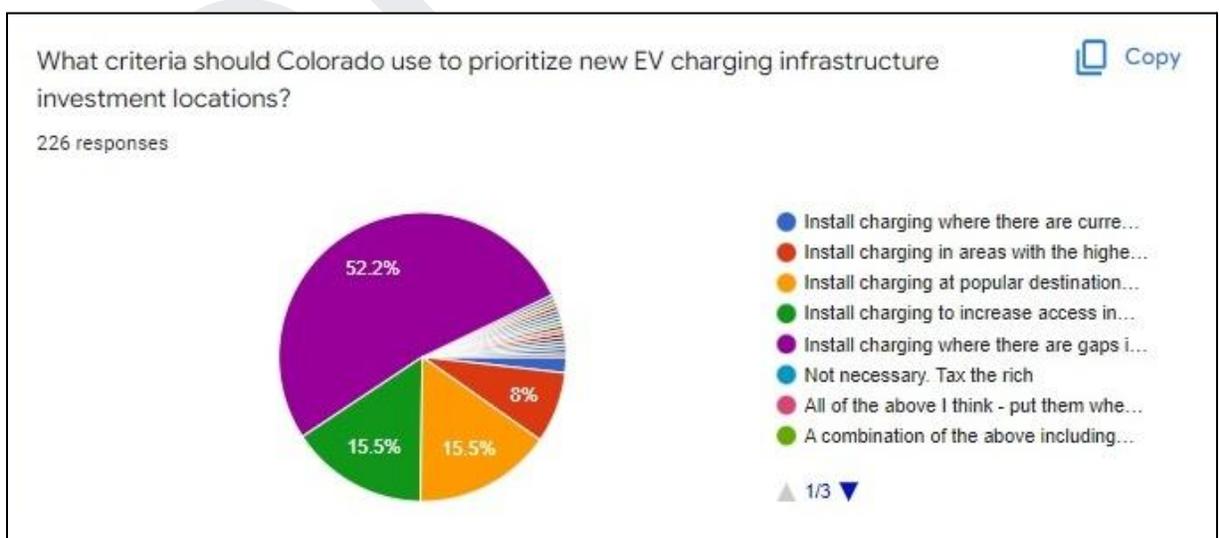
Survey results, gathered from more than 225 respondents, indicated some clear priorities from members of the public regarding the NEVI Plan and future implementation. For instance, 76.5 percent of responses identified “Improved air quality and reduced emissions” as the most significant benefit of EV fast chargers for their community, with 57.5 percent citing “Transportation cost savings”. In terms of potential

disadvantages of EV fast charging, 58.8 percent of survey respondents identified “Unequal access to vehicles and chargers, while 50.4 percent were concerned about “High equipment and operational costs” – an interesting contrast to those in the first question anticipating cost savings.

In terms of potential barriers to adoption, the “Cost of vehicles”, “Access to chargers”, and “Understanding/comfort with EV technology” were the top three considerations. The NEVI program is well-situated to impact one of these three areas, while other supportive policies in Colorado are designed to address the other two. Interestingly, only 11.9 percent of respondents identified “Range of vehicles” as the biggest barrier for EV adoption.

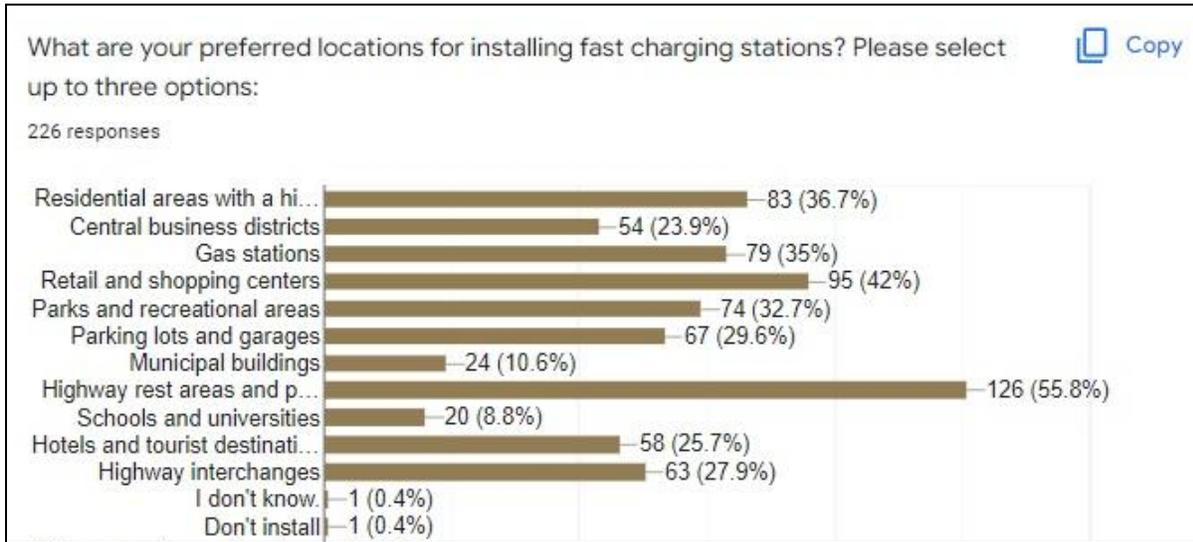


On the question of how Colorado should prioritize the use of NEVI funding, a clear majority of 52.2 percent advocated for the state to “Install charging where there are gaps in the existing network”, while a potential focus on disproportionately impacted and rural communities and another on popular destinations (like employment, retail, and tourist attractions) were split evenly at 15.5 percent each. Relatively few respondents suggested a focus on areas with the highest vehicle traffic, and a very small percentage advocated for charging investment in the areas with the most registered EVs.

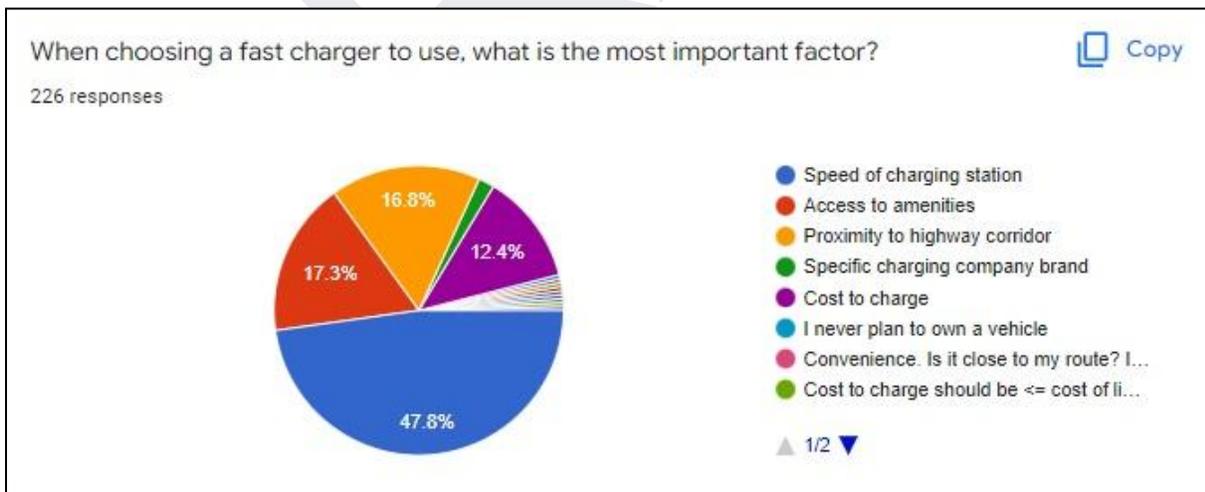


In terms of potential charging station locations, the most popular response was to install charging at

“Highway rest areas and park & rides”, with 55.8 percent answering in favor of this approach. Unfortunately, federal regulations effectively prohibit CDOT from meeting this public demand, given that charging is considered a form of commercialization of the right-of-way and is not allowed in most areas of the country. Other popular answers for the preferred location to site charging were “Retail and shopping centers”, at 42 percent, and “Residential areas with a high density of multi-family housing”, at 36.7 percent.



When asked about the most important factor in choosing which charging location to use, nearly half (47.8 percent) of survey respondents indicated that “Speed of charging station” is their primary concern, while a roughly even percentage chose “Access to amenities” (17.3 percent), “Proximity to highway corridor” (16.8 percent), followed by “Cost to charge” (12.4 percent). Very few respondents indicated a preference for any specific charging network or brand.



Finally, it should be noted that the survey also generated a lot of comments outside of the direct question and answer format provided by CDOT. Several respondents indicated a general opposition to the NEVI program as a whole, stating that it is the business of the private sector, rather than government, to invest in transportation fueling infrastructure. Others questioned the proposition that the installation of charging is

itself sufficient to encourage EV adoption in areas that face additional barriers. Other participants expressed concerns about the electrical grid's capacity to absorb increased demand for power from the transportation sector (especially in areas of the state lacking three phase power) or indicated that the workforce needed to support ZEVs is currently insufficient. There were also many comments expressing concern that EV deployment would continue to be unaffordable for many Coloradans, even with the infusion of new federal funding. All of the input received via the survey and CDOT Office of Innovative Mobility (OIM) email address will continue to be reviewed throughout the NEVI Plan process and implementation to ensure that these concerns are further explored and addressed as the program moves forward.

Stakeholders Involved in Plan Development

Since the beginning of 2022, CDOT has held a number of meetings with NEVI guidance recommended stakeholder groups including Metropolitan Planning Organizations, utilities, private sector companies, state public transportation agencies, non-profit organizations, and other interested groups. Many of these discussions took place during standing meetings and regular interagency updates, while others were scheduled specifically to discuss the NEVI program. CDOT will continue to identify and engage with relevant stakeholders throughout the program's development and implementation phases of NEVI, with a particular emphasis on Environmental Justice areas and community-based organizations.

As discussed in the previous section, CDOT developed a survey to gather public feedback on charging concerns and location preferences. The survey was distributed through CDOT's social media platforms, community engagement events, and mass email distribution through the Colorado Electric Vehicle Coalition (CEVC) and its subgroups. The CEVC mailing list includes a diverse set of stakeholders including the general public, governmental entities, utilities, federally recognized tribes, labor organizations, private sector/industry representatives, representatives of the transportation and freight logistics industries, state public transportation agencies, and urban, rural, and underrepresented or disadvantaged communities. Input collected from discussions and the survey helped shape the plan and guide the EV infrastructure deployment in Colorado.

Public outreach is critical in all stages of the NEVI development. Hence, CDOT intends to continue virtual stakeholder meetings, hold one-on-one calls, participation in community events, and acceptance of public comments through the CDOT OIM email account (cdot_innovativemobility@state.co.us) for the entire NEVI implementation period.

Plan Vision and Goals

The State of Colorado has established ambitious targets for transportation electrification that align closely with the vision of the NEVI Program. The state's most recent [Colorado Electric Vehicle Plan](#) (2020), established a light-duty vehicle target of 940,000 EVs on the road by 2030 with a vision of full electrification of the state light-duty fleet by 2050. Similarly, the plan identified a target of 1,000 transit zero-emission vehicles (ZEVs) deployed by 2030 as an interim step towards a fully zero-emission transit fleet by 2050. Most recently, the [Colorado Clean Truck Strategy](#) (2022) established an additional target of 35,000 medium- and heavy-duty ZEVs in the state by 2030, as part of a path towards 100% of MHD vehicle sales by 2045, and eventually, an entirely zero-emission vehicle fleet across all weight classes. For the State of Colorado to succeed in attaining these targets, a robust statewide charging network will be vital.

In addition to the EV and ZEV targets above, the State of Colorado has a broader vision for decarbonizing the entire state economy as defined in the [Colorado Greenhouse Gas Pollution Reduction Roadmap](#) (GHG

Roadmap). This document defines pathways to achieving interim statewide GHG reduction targets of 26% by 2025, 50% by 2030, and 90% by 2050 – all from a 2005 baseline. Given that the transportation sector is the single largest contributor to GHG emissions in Colorado and that transportation electrification is identified as one of the most significant tools to decarbonize the sector, the implementation of the GHG Roadmap will be difficult to realize without significant progress in the development of the statewide EV charging network.

The goal of this Colorado NEVI Plan is therefore to leverage new federal funding against existing state programs, policies, and campaigns to significantly expand access to DC fast-charging across Colorado. NEVI funding will be primarily targeted on filling existing gaps in the statewide fast-charging network, particularly those in rural and disproportionately impacted communities, thereby extending EV access and opportunities to a greater number and broader variety of Coloradans. In some such cases, funding for operational support may be employed to ensure that new charging locations remain economically viable as initially low charging demand rises to meet infrastructure supply. A secondary focus of Colorado's NEVI program will be the expansion of existing DC fast-charging locations along federally-designated corridors to achieve the NEVI standard of at least four 150 kW chargers per location. Currently, CEO's corridor program requires installation of two or four chargers capable of providing 150 kW through power-sharing between two chargers, but each of these corridor sites is future-proofed to ensure that expanding the number and power of chargers is a cost-effective strategy in building out Colorado's designed corridors. Thus, many of Colorado's existing corridor stations will need to expand in order to meet the new NEVI standards. Finally, Colorado will provide funding to those locations where infrastructure exists today but in quantities insufficient to meet the needs of a growing market. In identifying and supporting projects in the above categories, Colorado will seek to ensure that, whenever possible, the siting, physical layout, and overall electrical capacity of funded charging locations is amenable to the needs of future medium- and heavy-duty vehicle drivers, as well as light-duty vehicles towing trailers.

All locations in Colorado that are ineligible for NEVI funding due to their distance from a designated corridor, as well as those sites that are better suited for Level 2 charging and/or fewer or lower-power DC fast-charging stations, will continue to be addressed using state, Volkswagen Settlement, and Community Access Enterprise (CAE) funding. These mutually supportive funding streams will ensure that a broad range of grant options are available to communities and businesses across the state, and combined with additional planning, regulatory, educational, and workforce development efforts already underway, will help accelerate Colorado's transition to an equitable and effective zero-emission vehicle transition in the coming years.

Contracting

Over the past decade, the State of Colorado has successfully managed multiple EV charging and alternative fueling grant programs across state agencies, employing a variety of contracting approaches. Over time, these strategies have been adapted and refined to increase efficiency and better meet the needs of applicants, agency staff, and the traveling public. The development of new NEVI-funded programs will allow Colorado to build on this strong foundation while offering additional opportunities for innovation and effective scaling of existing grant programs in the coming years.

In the past, a common element of EV grant programs in Colorado has been the leading role that CEO has played in program design, administration, and evaluation. Regardless of the original source of federal, state, or other funds, Colorado has used interagency agreements (IAAs) to sub-allocate charging- or fueling-related portions of larger programs to CEO to manage on the state's behalf. For instance, the Colorado Department of Public Health and Environment (CDPHE) is the state's lead agency for

managing its Volkswagen Settlement allocation but employed an IAA so that CEO could distribute those funds through the existing Charge Ahead Colorado and DC Fast-Charging Corridors programs. More recently, CDOT established an IAA with CEO to fund grants that support the electrification of Colorado's 26 Scenic and Historic Byways in a program that is likewise managed by the CEO rather than CDOT. All programs operate on a reimbursement basis, with CEO staff processing requests for completed projects for the review, approval, and reimbursement by the funding agency.

In these and other examples, the funding agency remains responsible for compliance with regulatory requirements and maintains close and constant involvement in all steps of program design and implementation. The advantage of this approach is that grant applicants, local communities, and industry stakeholders are able to establish a consistent, ongoing relationship with CEO, its staff, procedures, webpages, and program "brands" over multiple years while CEO develops expertise in the electric vehicle market and in developing and refining grant programs. Based on this experience and the positive feedback that it has generated from project partners over the years, CDOT proposes to continue this approach in managing Colorado's allocation of NEVI funds by developing one or more IAAs with CEO to incorporate NEVI funds into existing grant programs and to potentially develop new NEVI-specific programs in alignment with federal guidance as well as stakeholder needs.

Once the necessary IAAs have been established, CDOT will work with CEO and other partner agencies to allocated NEVI funding to projects in the following areas:

1. Construction of new charging locations within identified charging gaps along Colorado's federally designated Alternative Fuel Corridors, prioritizing those locations serving disproportionately-impacted communities.
2. Expansion of existing charging stations along Colorado's federally designated Alternative Fuel Corridors by adding additional chargers and increasing power as required by NEVI standards.
3. Construction of additional charging locations in areas where charging infrastructure already exists but is insufficient to meet the growing EV market demand.
4. Construction of charging infrastructure to support the electrification of the medium and heavy duty vehicle market.

CDOT, CEO, and other partner agencies will collaborate on program development and design as well as scoring and selection of proposed projects to ensure that they align with federal, state, and stakeholder goals and priorities. Once selected, CEO will establish individual project agreements with each grantee and be responsible for monitoring the scope, schedule, and budget of the project through completion. Project agreements will incorporate all NEVI standards and requirements, and CDOT will provide oversight, guidance, and support for CEO in applying these agreement terms. Additionally, CDOT will play a leading role in requirements related to highway signage, environmental clearances, and other topic areas where CDOT has greater expertise.

In summary, Colorado plans to adapt and evolve its existing IAA approach, which has proven successful for a variety of programs over the years, to efficiently integrate new NEVI funding into the state's broader ecosystem of EV support.

Existing and Future Conditions Analysis

Colorado is the 8th largest state by area and the 21st in population, but it consistently ranks higher in a variety of metrics related to EV infrastructure, vehicle adoption, and supportive policy landscape. This places the state in a prime position to leverage the investment of NEVI funding against existing state programs and policies and accelerate its progress towards statewide transportation electrification goals

over the next five years and beyond.

As of June 1, 2022, there were 56,010 electric vehicles registered in Colorado. Of that total, 39,602 were battery electric vehicles (BEVs) and 16,408 were plug-in hybrid electric vehicles (PHEVs). In Colorado, there are 9.98 EVs per 1,000 people and in the first six months of 2022, EVs represented 6.66 percent of new car and light-duty truck registrations statewide. While there are currently more than 40 manufacturers with a wide variety of EV models registered in Colorado, nearly half of all EVs on the road today are Teslas. EV registration data is tracked and reported monthly on EValueCO, the CEO's EV dashboard, located at: <https://energyoffice.colorado.gov/zero-emission-vehicles/evs-in-colorado-dashboard>.

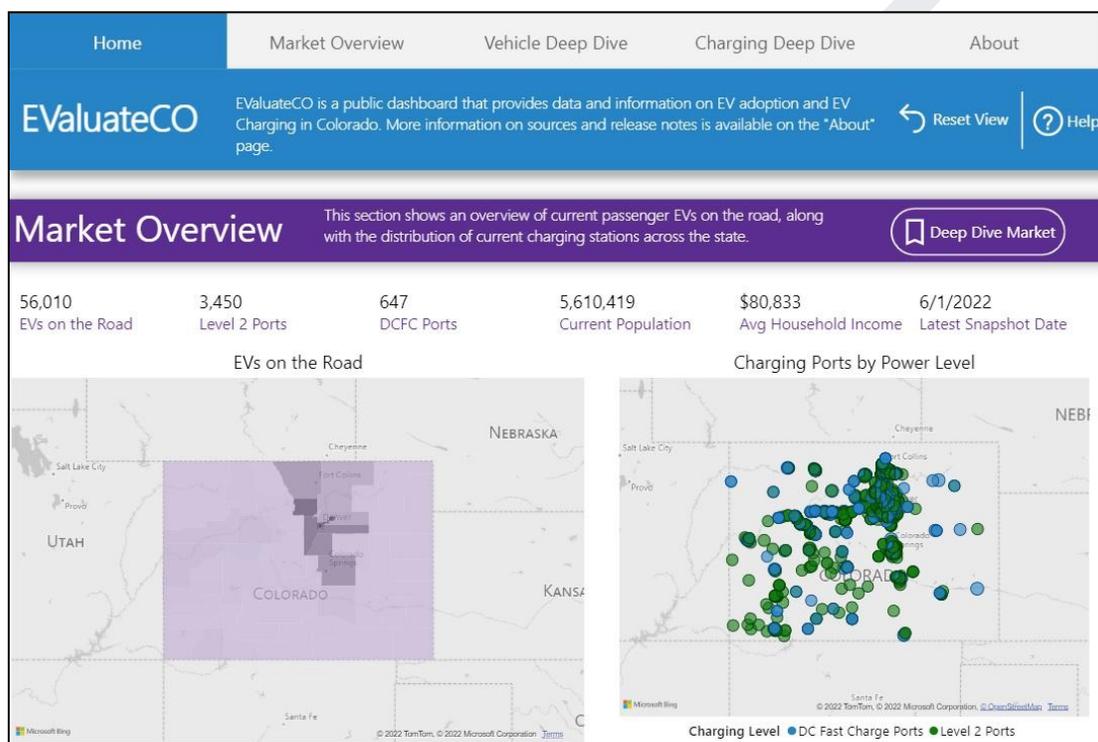


Figure 1: EValueCO registration and EVSE dashboard.

In recent years, the State of Colorado has taken active steps to increase the number and variety of EVs available on the market. In November 2018, the Colorado Air Quality Control Commission (AQCC) adopted the Low Emission Vehicle (LEV) standard, which establishes more stringent emission requirements for new light-duty and medium-duty motor vehicles sold in Colorado beginning with model year 2022. In August 2019, the AQCC adopted the Zero Emission Vehicle (ZEV) standard, which requires individual automakers to make an increasing percentage of light-duty zero-emission vehicles available for sale in Colorado – at least 5 percent in model year 2023 and more than 6 percent in model year 2025. As of July 2022, staff at the CDPHE Air Pollution Control Division (APCD) are preparing a proposal for the AQCC to consider adoption of the Advanced Clean Trucks (ACT) and Low NOx Omnibus regulations, which would require automakers to meet minimum sales percentages for medium- and heavy-duty ZEVs starting in model year 2027, and also to drastically reduce NOx emissions from new heavy-duty diesel vehicles sold in Colorado. State agency staff will continue to review and analyze additional regulatory tools that will help provide more vehicle options to Colorado consumers and businesses as technologies and markets continue to develop.

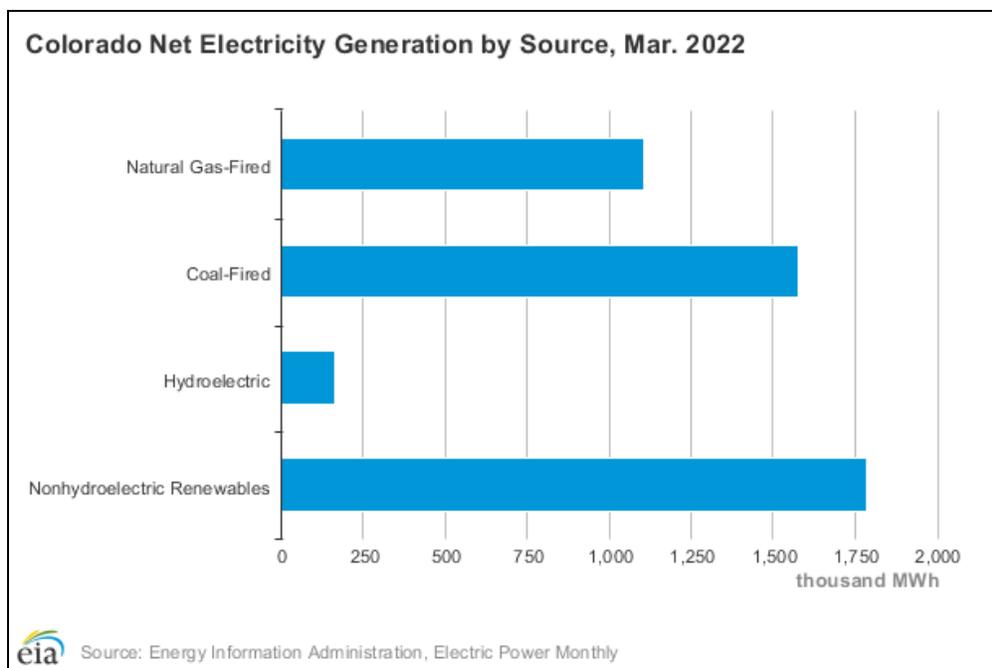


Figure 2: Colorado net electricity generation by source

Access to vehicles is only one part of the equation when it comes to greater EV adoption – the ability to power those vehicles through the electric grid is equally vital. Currently, Colorado’s electricity is generated by a mix of renewable and non-renewable sources, with approximately 39 percent coming from wind and solar, 34 percent from coal, 24 percent from natural gas, and the remaining 3 percent generated by hydropower. The prevalence of renewable sources on the grid is a relatively recent phenomenon, with its contribution to the state’s electricity mix more than tripling since 2010 according to the [US Energy Information Administration \(EIA\)](#).

This trend is expected to continue based on a combination of market forces, state regulations, and commitments from major electric utility providers to reduce carbon emissions, retire coal generation, and achieve carbon neutrality in the coming decades. In fact, the six electric utilities that operate 99 percent of the fossil fuel power plants in Colorado have committed to reduce emissions by at least 80 percent by 2030. Furthermore, if the Xcel Energy Clean Power Plan currently under review by the Colorado Public Utilities Commission (CPUC) is approved, then the last coal generation plant in Colorado will be retired by January 1st, 2031. The decarbonization of the electricity grid provides direct benefits to Coloradans by reducing the direct emissions produced by the utility sector, and it also presents a unique opportunity for the transportation sector to lessen its own impact through the electrification of vehicles. Unlike other vehicles on the road, EVs deployed in Colorado today will actually become cleaner over their lifetime as the carbon intensity of electricity continues to decline.

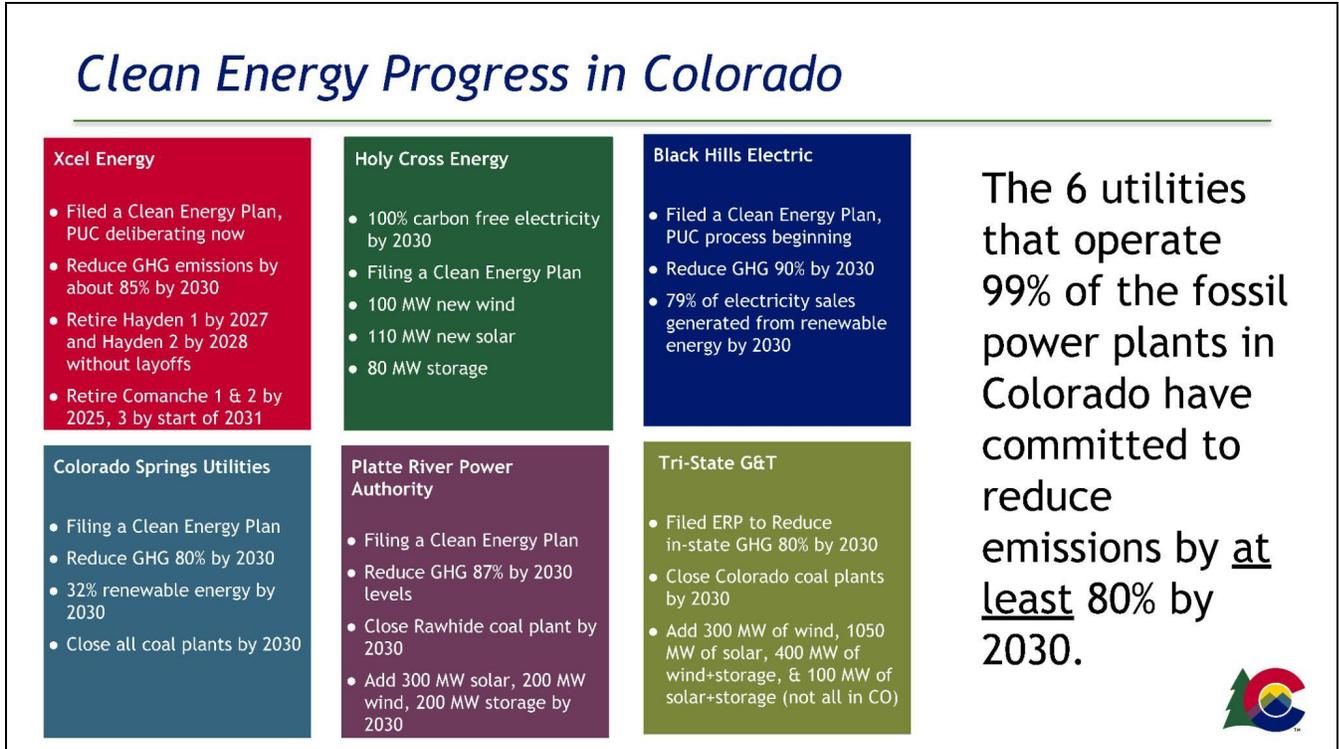


Figure 3: Major electric utility clean energy commitments in Colorado

While the generation of electricity is becoming more renewable and less carbon intensive, individual electric utilities are simultaneously modernizing their distribution systems, rate schedules, policies, incentives, and even staffing to better align with the new frontier of transportation electrification. Colorado is home to a total of 52 electric utilities — 22 rural cooperative utilities (co-ops), 29 municipal owned utilities (“munis”), and two investor-owned utilities (IOUs). The IOUs, Xcel Energy (Xcel) and Black Hills Energy (Black Hills), are for-profit monopolies regulated by the Colorado Public Utilities Commission (CPUC) that collectively provide 53 percent of Colorado’s retail electricity. Municipal utilities sell 16 percent and rural electric cooperatives sell 28 percent.

In 2019, [Senate Bill 19-077](#) (SB19-077) authorized the ownership of electric vehicle charging infrastructure by electric utilities and created a regulatory requirement for filing transportation electrification plans every three years for a portfolio including new rates, electric vehicle charging facilities, electric vehicle make-ready infrastructure investment, and income-qualified programs. As a result of the bill, Xcel and Black Hills created transportation electrification plans (TEPs) valued at more than \$100 million combined, each designed to offer a range of new service offerings to customers to support widespread and affordable vehicle electrification. A number of other utilities, while not required by SB19-077 to develop TEPs, have voluntarily established incentives and customer support for the planning, installation, and operation of EV charging in private, public, and fleet environments. CEO, CDOT, and their partner agencies will continue to work with electric utilities across the state to understand, prepare for, and participate in this significant transition. This includes potential planning for a larger, more robust, and more flexible grid that will be able to meet the increased demand from widespread vehicle electrification while maintaining reliability and resiliency in the face of increasing threats from extreme heat and cold, floods, wildfires, and cyber attacks.

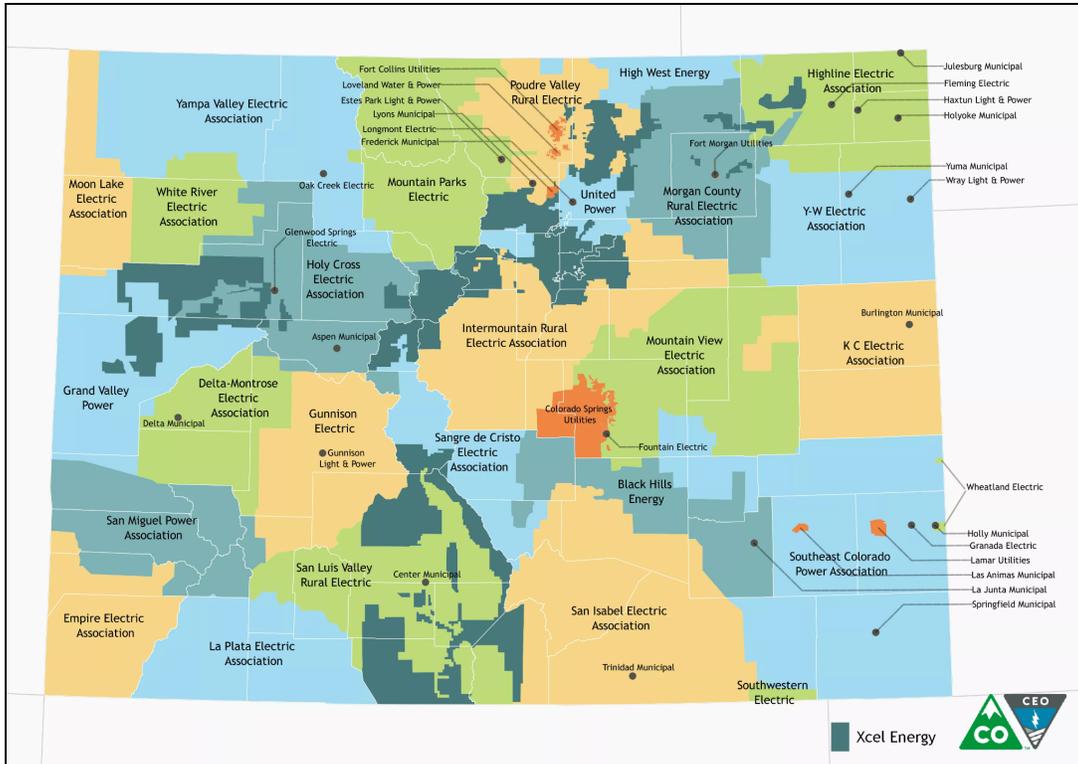


Figure 4: Colorado Electric Utilities

State Geography, Terrain, and Climate

Colorado has made significant progress in facilitating EV adoption over the past decade and is frequently cited as a national leader in this regard, however the state faces a number of geographic and climate characteristics that can present challenges for policymakers, project developers, and individual travelers. Most obviously, Colorado has a mountainous landscape, with the highest average elevation of any state – 6,800 feet above sea level. Dozens of individual peaks climb above 14,000 feet, while the highest paved road in the US (Mt. Evans Scenic Byway - 14,130 ft.), highest mountain pass over the Continental Divide (Independence Pass - 12,095 ft.), and highest point on the Interstate System (Eisenhower-Johnson Memorial Tunnel - 11,158 ft.) are all located in Colorado. This extreme terrain results in steep grades for travelers who are ascending and descending along the highway, which may exacerbate feelings of range anxiety but can also increase the benefits of EVs’ regenerative braking technology. Extreme temperature swings and rapidly changing precipitation, on both a seasonal and daily basis, can also make trip planning less predictable than in other parts of the country – another factor which may give new EV users pause but can be mitigated through improving battery technology and a greater diffusion of fast-charging facilities across the state.

While Colorado is justly famous for its mountains, almost 40 percent of the state’s landmass is taken up by the Eastern Plains that stretch from the urbanized Front Range eastward to the borders of Nebraska, Kansas, and Oklahoma. Smaller towns and cities dot the landscape, connected by long stretches of Interstates and highways that serve a higher percentage of agricultural and commercial freight vehicles than in other parts of the state. These long distances, combined with wide temperature ranges and unpredictable weather, can dissuade travelers from using EVs. The Eastern Plains currently see very low levels of EV adoption and also present fewer potential locations to host charging installation. NEVI-funded projects in these communities may require higher incentive levels or operational support in

order to offset lower anticipated utilization in early years of the program.

In between the mountains and the plains sit the cities of the Front Range, home to approximately 86% of the state's population and linked primarily by I-25 from Wyoming to New Mexico. This dense and fast-growing metro area has a very different set of challenges for EV adoption, such as lower-income communities unable to purchase or lease the most commonly-available EV models and a larger number of apartment and condo residents without access to affordable home charging. Many urban and suburban residents who commute short distances in their daily lives may nonetheless travel long distances for weekend recreation or other in-state or regional trips, making EV range and access to convenient fast-charging a point of consideration in their vehicle selection.

Unfortunately, climate change is also contributing to these challenges via rising summer temperatures, increasing wildfire risk, and worsening ground-level ozone. Changes in temperature and precipitation are expected to result in a 50 percent decline in snowpack, which is the state's main water source, and in the process, runoff from melting snow could lead to more frequent and severe flooding in the future. While the electrification of the transportation system is one of many efforts by the State of Colorado to mitigate the impacts of human behavior on the climate, this work will be made more challenging by the effects of climate change that are already leaving their mark on Colorado's landscape today.

State Travel Patterns, Land Use, Public Transportation Needs, and Freight Needs

Travel Patterns

Current and future travel patterns are important considerations in any transportation planning process, but especially significant when considering the quickly-evolving technology and market for EVs. Currently in Colorado, the greatest commuter travel flows are to, from, and within the Denver Metropolitan Area. There are also significant travel patterns between Larimer, Weld and Adams counties to the North; Teller, El Paso, Pueblo, and Fremont counties to the South and Pitkin, Eagle, Garfield, and Mesa counties to the West. In the [Statewide Transportation Plan \(2045\)](#) it's stated that the mean travel time to work in Colorado is 25.9 minutes, one minute less than the national average. However, Colorado is a fast-growing state and highway congestion is a major concern for efficiency, safety, and environmental quality across the Front Range and other parts of the state.

Colorado's population growth and economic expansion is expected to continue for the foreseeable future, and this growth may place significant strain on existing transportation infrastructure. The amount of travel per person (as expressed in vehicle miles traveled per capita) is expected to remain flat over time. However, because of an increase in population, total travel and associated transportation demand will increase. In 2015, total annual vehicle miles traveled (AVMT) on Colorado state highways and local roads reached 50.4 billion, with 74.7 billion expected by 2045. Traffic growth in Colorado is forecasted to result in a 48.1% increase in traffic between 2015 and 2045, according to the [Statewide Transportation Plan \(2045\)](#). This growth, given Colorado's already congested roadways and largely constrained geography, are likely to cause increases in traffic congestion and diminishing air quality over time. While the electrification of transportation can help mitigate some negative impacts on air quality, growth in overall VMT will offset some of these, and EVs alone do nothing to help address congestion.

In 2021, the CDOT Transportation Commission adopted the [GHG Transportation Planning Standard](#), which requires CDOT and its five partner MPOs to determine the total pollution and greenhouse gas emission increase or decrease expected from all future transportation projects included in a statewide or regional plan and take steps to ensure that greenhouse gas emission levels do not exceed set reduction amounts. In 2022, the accompanying Policy Directive 1610 was approved, which provides an additional compliance mechanism for CDOT and the five MPOs to meet the GHG reduction levels through mitigation. This tool is one of several elements of the transportation section of the Colorado GHG

Pollution Reduction Roadmap, and is expected to improve quality of life and air quality across Colorado by encouraging projects that add sidewalks, build “complete streets,” and increase transit options.

In addition to local commuters and other daily travel patterns, tourism in Colorado is a major consideration in regards to transportation planning. The Colorado Tourism Office (CTO) maintains daily data from Transportation Security Administration (TSA) airport checkpoints, which indicate a consistent increase in visitors to Colorado (apart from the impacts of the COVID-19 pandemic in 2020) over the past years. Even in 2020, Colorado still welcomed 74.1 million visitors who supported and estimated 149,500 jobs via \$15.5 billion in direct traveler spending. It is critical for Colorado’s economy that visitors are able to get to and from the state and move within it safely and efficiently, regardless of their mode of travel. With that said, [Strategic Marketing and Research Insights](#) found that a growing number of travelers are selecting their recreational destinations based on their sustainability practices. [In the 2019 CTO Research Findings published by Colorado Office of Economic Development and International Trade](#), in a survey conducted, more than 80 percent of participants indicated that they feel Colorado does a good job of protecting and preserving its natural resources. Colorado’s ongoing effort to electrify all 26 of its Scenic and Historic Byways, fund charging installations at hotels, ski resorts, and rural tourist destinations, and work with major airports and rental car companies to give visitors more vehicle options upon arrival will all contribute to establishing the state as a destination of choice for those seeking to minimize the impacts of their travel on the natural environment.

Land Use

As explained in the [Statewide Transportation Plan \(2045\)](#), local governments are responsible for land use decisions. CDOT participates in land use discussions since these decisions affect statewide transportation infrastructure demands. The siting of distribution centers and schools in rural and suburban areas is a good example of how land use can affect transportation patterns, and therefore costs. Distribution centers generate a large amount of traffic related to the movement of goods and commuting workers. Schools are also significant generators of activity, potentially leading to issues of congestion and safety that CDOT and local governments must consequently address.

CDOT recognizes that state highways are vitally important to meeting the mobility needs of the public and that Colorado’s quality of life and economic health depends on the safe and efficient interregional and interstate movement of people and goods. Within current land use patterns and transportation networks, Colorado’s population and economic growth are leading to more trips and more VMT on already crowded roadways. The VMT generated by critical institutions and business locations like schools, community centers, shopping and entertainment districts, business parks, and distribution centers depends on how they are sited in relation to existing transportation options and the residences of workers. When located far from existing transportation facilities, these facilities induce demand for travel. The resulting increase in VMT and traffic congestion can have a negative impact on the economy and the environment.

In planning for the broader electrification of the statewide transportation system, it is important to account for the ways in which existing and future land use development patterns may make EV charging more or less accessible to communities. The siting of charging infrastructure along existing travel corridors and at destinations with conducive dwell times, for instance Level 2 chargers and workplaces and DC fast-chargers at retail establishments, will help to make charging more convenient for travelers and potentially more financially beneficial for site hosts. Given the need to provide increased power supply for DC fast-charging, siting chargers near existing development should also generally make projects more cost effective. There may also be situations in which greenfield development in less-developed areas is justifiable, but CDOT, CEO, and stakeholders should remain cautious of funding projects that indirectly encourage sprawling development and higher VMT – even if that VMT is zero-emission.

Public Transportation Needs

As of 2022, public EV attention both nationally and in Colorado has been focused largely on light-duty passenger vehicles, but the transit community has long been a leader in the push towards low- and zero-emission mobility. While the great majority of transit vehicles operating today are powered by diesel or gasoline internal combustion engines, nevertheless their overall impact on reducing VMT per capita and providing access for those who cannot or choose not to drive is hugely positive in terms of air quality, climate change mitigation, equity, and economic development. With that said, a number of transit agencies in Colorado are seeking to improve their contribution even further by beginning the transition to zero-emission transit fleets. As of July 2022, there are more than 60 battery electric transit vehicles operating across Colorado, with another 40+ in some stage of procurement and delivery. The State of Colorado has a goal of deploying at least 1,000 transit ZEVs by 2030 on the path to a 100% ZEV transit fleet by 2050, and the strategies and financial resources necessary to achieve these targets are explored in the [Colorado Transit Zero-Emission Vehicle Roadmap](#) completed in 2021.

Through a combination of ongoing stakeholder engagement and research into national best practices, CDOT has found that most transit agencies prefer to charge or fuel their ZEVs “behind the fence” at their own facilities, rather than employing public-facing facilities used by other fleets and travelers. As a result, Colorado anticipates that relatively few NEVI-funded projects will be developed specifically with transit agency users in mind and that these needs will continue to be met via existing state, Volkswagen Settlement, and Clean Transit Enterprise (CTE) grant programs. Regardless of this expectation, CDOT and CEO will remain open to proposals for NEVI-funded projects that incorporate transit vehicle charging needs as a primary or secondary focus, particularly in rural areas with lower anticipated utilization by personal automobiles and more common use of vans and shuttle buses for fixed-route or demand-response transit services.

Freight and Supply Chain Needs

Colorado businesses are active participants in the national and global economics, exporting nearly \$8.3 billion in goods to destinations around the world as of 2018 according to the [United States Trade Representatives](#). Colorado also receives freight shipments from around the world, providing food, goods, and raw materials to communities across the state that could not survive on their own. The multimodal freight network is what enables these businesses and communities to thrive, and the disruptions to that global system that Coloradans have witnessed over the past several years have only underlined its importance to their everyday lives. Nonetheless, MHD vehicles in Colorado contribute 22 percent of on-road GHG emissions in the state despite representing only 10 percent of total vehicles. They also are estimated to produce 30 percent of on-road Nitrogen Oxides (NOx) emissions and 40 percent of on-road Particulate Matter (PM) emissions in Colorado, so it is important to address the environmental and health impacts of these vehicles while maintaining the benefits that they provide to society. This is especially important given the significant geographic correlation between areas of high truck traffic and those neighborhoods in which members of disproportionately impacted communities reside. As a result of this overlap, as well as other environmental justice issues, DI communities are exposed to significantly worse air quality and higher rates of asthma than the population at large. The need to act on MHD emissions is therefore an issue of equity as well as one of environmental sustainability.

In 2022, Colorado finalized a multi-year data analysis, stakeholder engagement, and policy development effort that culminated in the release of the [Colorado Clean Truck Strategy](#) (2022). This document identifies a wide range of regulatory actions, vehicle incentives, procurement policies, and other strategies intended to support the transition of MHD vehicles to zero-emission options and achieve the State’s target of 35,000 MHD ZEVs on the road by 2030. In the development of this document, many industry stakeholders identified the cost and accessibility of EV charging as a primary barrier for their companies – and particularly for those fleets that do not rely predominantly on “behind-the-fence” depot-style charging but instead travel long distances across the Intermountain West or the entire United States. Even

for those organizations whose vehicles return to base each night, the high upfront cost of retrofitting a major facility to support EV charging before proving the benefits of ZEVs can be daunting. Based on this stakeholder feedback, CDOT and CEO will work with companies, utilities, and local communities to identify project locations that are amenable to supporting MHD vehicle charging, either exclusively or in addition to light-duty passenger vehicle usage, both along major highway corridors as well as denser areas with multiple fleets in close proximity (such as the I-270 corridor). This latter approach will potentially offer an opportunity for commercial fleets to pilot the usage of MHD ZEVs at a relatively low level of up-front investment and then use that experience to inform future facility modifications to allow for more widespread adoption. NEVI funding may play a critical role in supporting this type of project and therefore accelerating the broader MHD transition in Colorado.

Alternative Fuel Corridor Networks

Colorado state agencies, including CDOT, have been working to support EV charging for nearly a decade as a means of advancing broader statewide goals of sustainability, mobility, and equity. During this period there has been an increased focus on the importance of fast-charging corridors, which are considered critical for building traveler confidence and making EV usage more accessible in rural areas that are less likely to be served by the private sector in the immediate future. Interest in the topic began with the release of the CEO's [2015 Electric Vehicle Market Implementation Study](#), which recommended the development of a "Colorado Electric Highway". This seemingly simple idea has grown over many years to constitute a central pillar of the State of Colorado's EV strategy, as reflected in both planning and infrastructure investments.

In 2016, Round 1 of the FHWA Alternative Fuel Corridor designation program inspired Colorado to begin defining its top priorities for Interstate and highway electrification, resulting in 16 nominations. Although only I-25, I-70, and I-76 were awarded designation at that time, CDOT and its state agency partners have submitted additional nominations in subsequent rounds of the program and, as a result, by early 2022 the entirety of US 50 and US 285 as well as portions of US 40 and US 160 were designated as priority corridors in Colorado. In May 2022, CDOT nominated six additional corridors in Round 6 of the program. These routes – I-270, US 34, US 36, US 287, US 385, and US 550 – were selected because they fill geographic gaps and enhance network redundancy in the Eastern, Western, and Northern areas of the state. They also serve predominantly rural and disproportionately impacted communities, both of which are major focus areas for the NEVI program. In early July 2022, the FHWA announced its Round 6 alternative fuel corridor designations, which included all six of Colorado's 2022 nominations. For the purposes of this NEVI Plan, Colorado will seek to invest NEVI funding along all 13 designated corridors in the state, while also considering the nomination of additional Interstates and highways in future nomination rounds released by FHWA.

Federally Designated Electric Vehicle Corridors in Colorado

Existing Designated Corridors

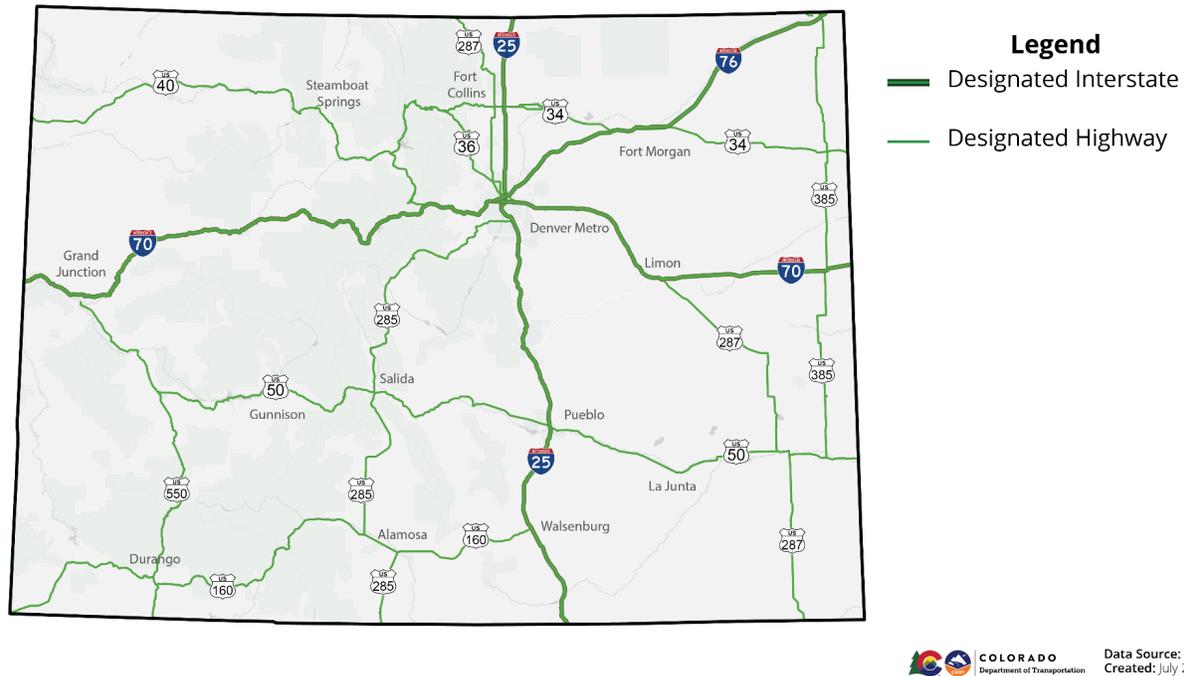


Figure 5: Federally-designated EV Alternative Fuel Corridors in Colorado

In preparation for a corridor offering and building on the EV Market Implementation Study, CDOT and CEO provided support to the City and County of Denver’s “Opportunities for Vehicle Electrification in the Denver Metro Area and Across Colorado” study which included an analysis of DC fast-charging, as well as NREL’s “Electric Vehicles in Colorado: Anticipating Consumer Demand for Direct Current Fast Charging” analysis which looked at ideal station placement based on CDOT traffic data and EV battery ranges. Using data from the NREL analysis, CEO then worked with graduate students from the University of Colorado to incorporate additional considerations for station placement including elevation and population centers. Collectively, these analyses were used to identify 34 communities along major highways and Interstates for station siting.

In spring 2018, CEO released a competitive RFA and awarded ChargePoint a \$10.3 million contract to fully build out the locations identified in the analyses and plans described above. ChargePoint has since identified local site hosts, designed and managed the project implementation, and has (as of July 2022) opened 23 of 34 locations to the public. The 11 remaining sites are anticipated to be completed by the end of 2022. Each site is required to have two or four chargers, capable of providing 150 kW for each pair of stations. Each site has the electrical capacity and pre-wiring required to double the number of chargers and increase the charging rate to 350 kW per pair by adding additional power modules. While these locations do not currently meet the minimum charger and power level standards of the NEVI program, the future-proofing required during initial installation provides a strong foundation for the statewide EV charging network and in many cases, a cost-effective way in which to direct NEVI-funded upgrades.

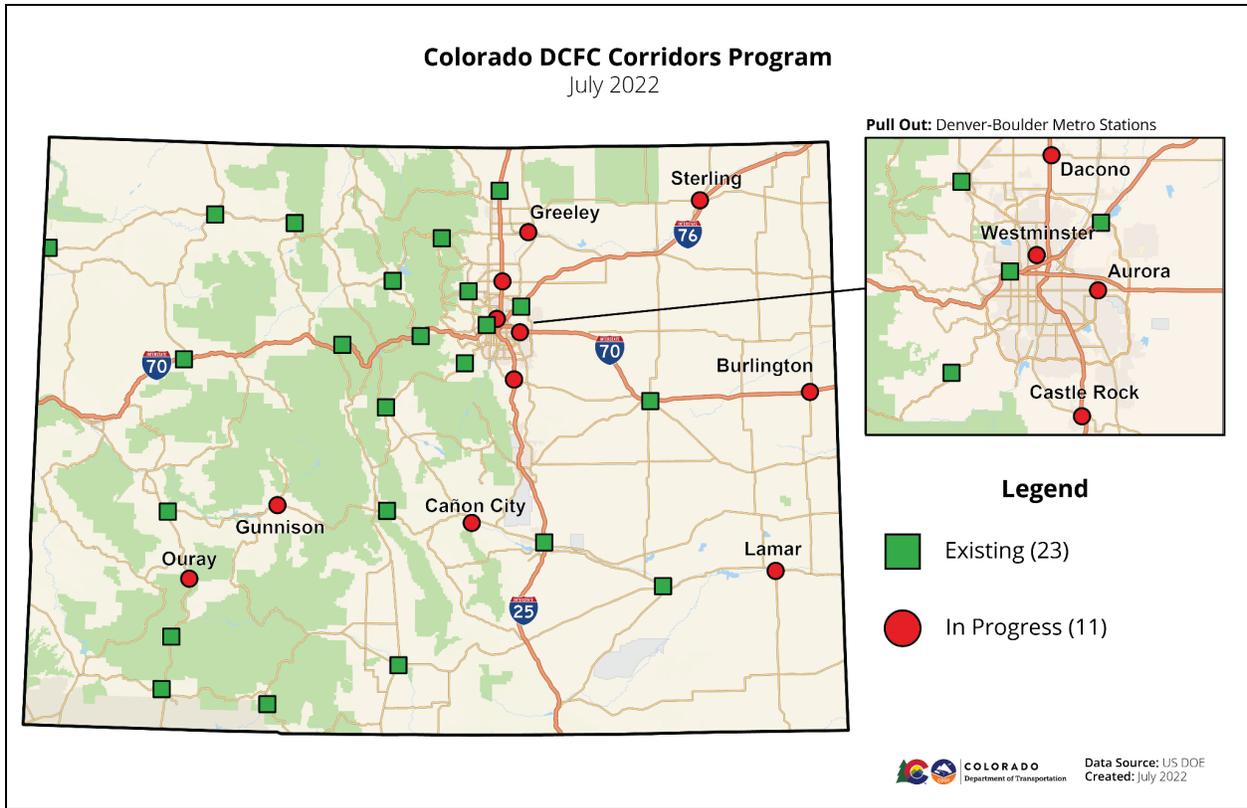


Figure 6: DC Fast-Charging Corridors Program progress as of July 2022

In addition to the DC Fast-Charging Corridors Program referenced above, Colorado has also seen continued progress towards corridor electrification through private investment (largely along the Interstates) and smaller, targeted grant awards through the Charge Ahead Colorado Program and Electrified Byways and Tourism Program. This latter effort was launched in 2020 with the goal of making EV travel possible along all 26 of Colorado’s Scenic and Historic Byways and to and from other recreational and tourist destinations. Increased EV charging along these routes (both DCFC and Level 2) has benefits for local economies catering to visitors, but also makes EV charging more accessible to local users who might otherwise have few public chargers in their area for years to come. This innovative program has garnered national attention in publications such as [AFAR](#), [Travel & Leisure](#), and the [New York Times](#), and it continues to see strong local demand from participants across Colorado seeking to extend the advantages of EV charging to their neighborhoods and businesses.

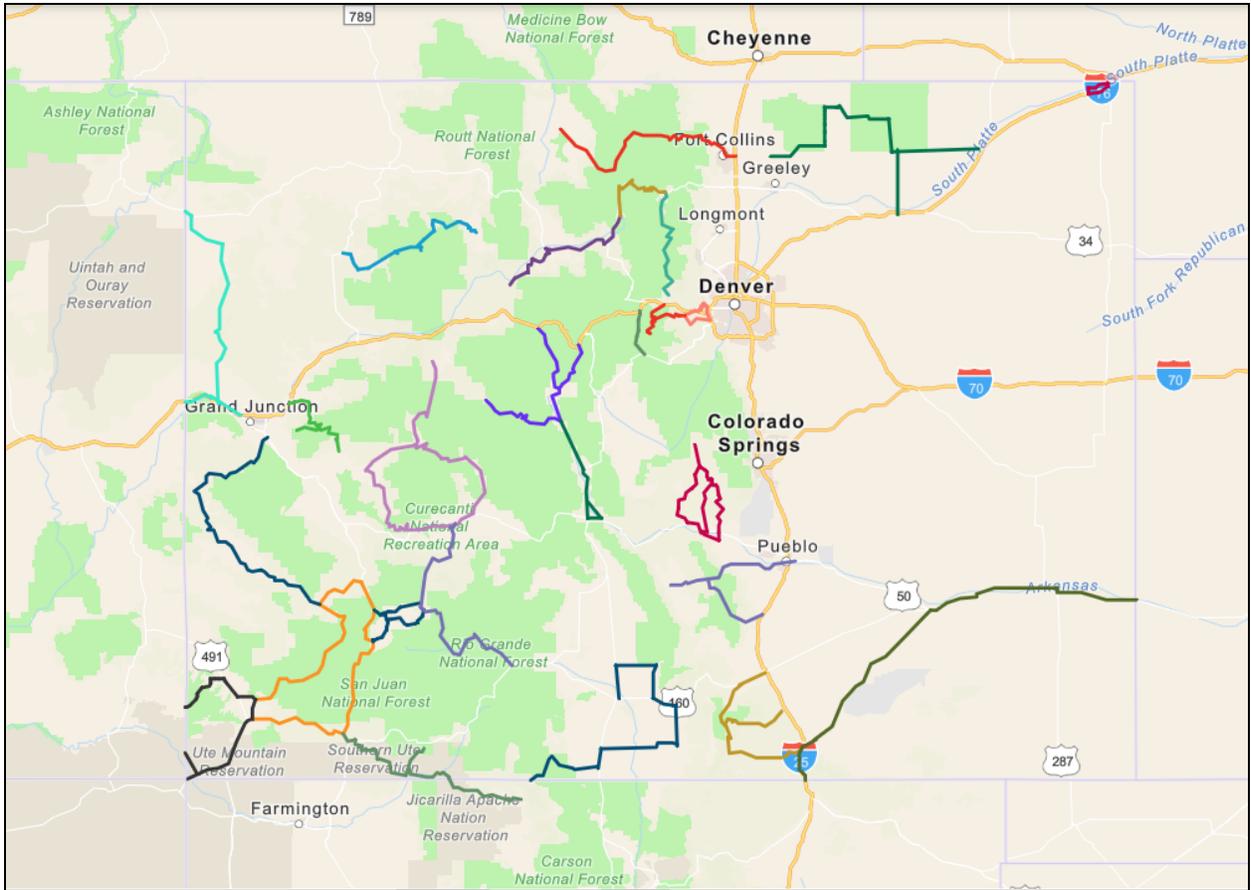


Figure 7: Colorado Scenic and Historic Byways

In spite of the EV charging investment programs outlined above, the majority of Colorado’s designated corridors are still classified as Corridor Pending, due to significant 50+ mile gaps between publicly-available charging stations. Ongoing state investments through the DCFC Corridors Program and others, coupled with new NEVI funding, will be instrumental in addressing remaining gaps and meeting the enhanced NEVI standards that most of Colorado’s current fast-charging deployments do not achieve. Currently, none of Colorado’s thirteen designated corridors are classified as Corridor Ready in their entirety, although some sections of I-25, I-70, and US 40 are. Progress in opening additional stations along US 50, US 285, and US 160 is proceeding rapidly as the remaining 11 sites funded by the DCFC Corridors Program are activated. However, the enhanced station criteria associated with the NEVI program may slow this trend since it will require future sites to be larger and more expensive while also putting pressure on existing sites to be upgraded.

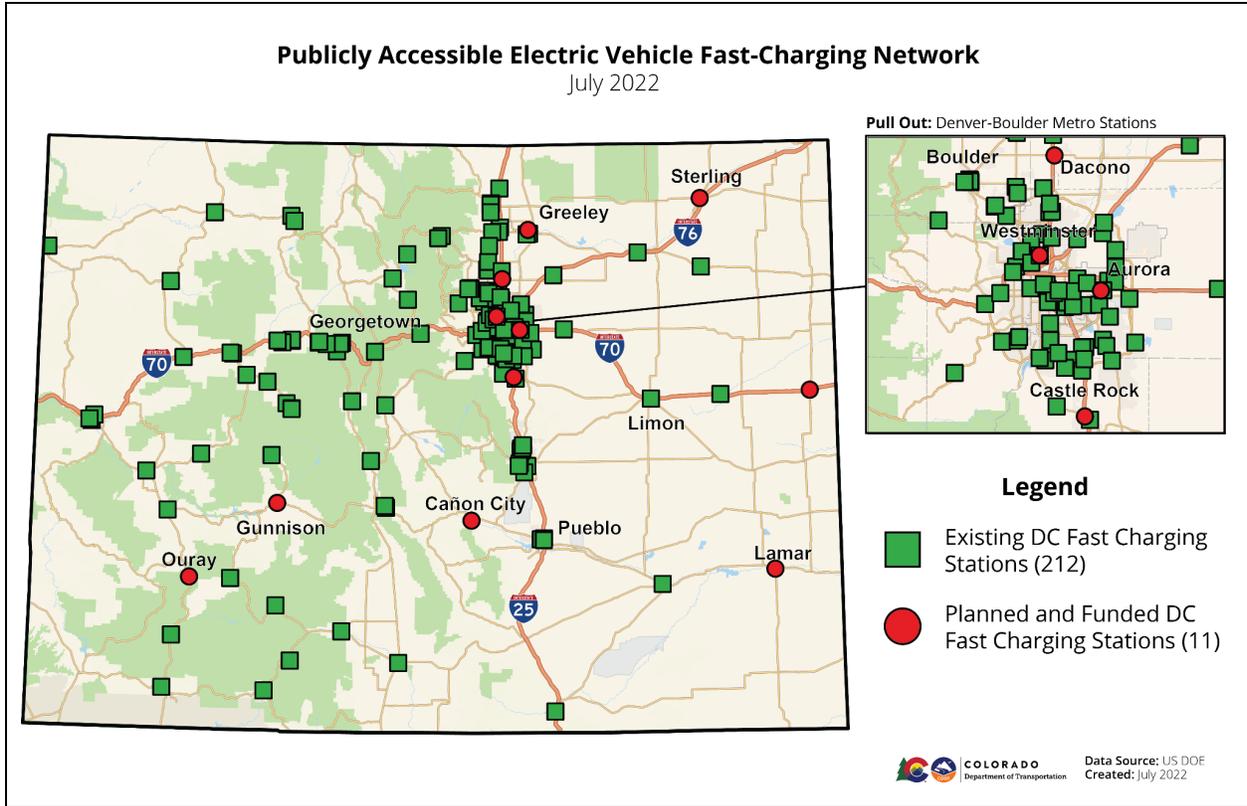


Figure 8: Publicly accessible EV charging network in Colorado as of July 2022

Existing Locations of Charging Infrastructure Along AFCs

As of July 2022, there are 16 stations along existing designated Alternative Fuel Corridors and nine stations along the Round 6 nominated corridors that meet the NEVI standard of being within one mile of the highway and hosting at least four chargers with 150 kW power levels. Stations located within one mile of the highway, but do not meet the plug or power requirement could be upgraded (please see Upgrades of Corridor Pending Designations to Corridor Ready Designations). A complete list of stations, including a count of plug type and power level, near existing and nominated highways is located in Appendix A. Station data was gathered from the Alternative Fuels Data Center (<https://afdc.energy.gov/>).

Table 1: Existing Charging Infrastructure Summary

Colorado DCFC Sites Within 1-Mile of Alternative Fuel Corridors		
<u>Route</u>	<u>Total DCFC</u>	<u>NEVI-Compliant DCFC</u>
I-25	31	8
I-70	24	5
I-76	4	1
I-270	1	1

US 34	9	2
US 36	10	4
US 40	7	1
US 50	7	1
US 160	5	0
US 285	2	0
US 287	12	2
US 550	3	0
Total	115	25

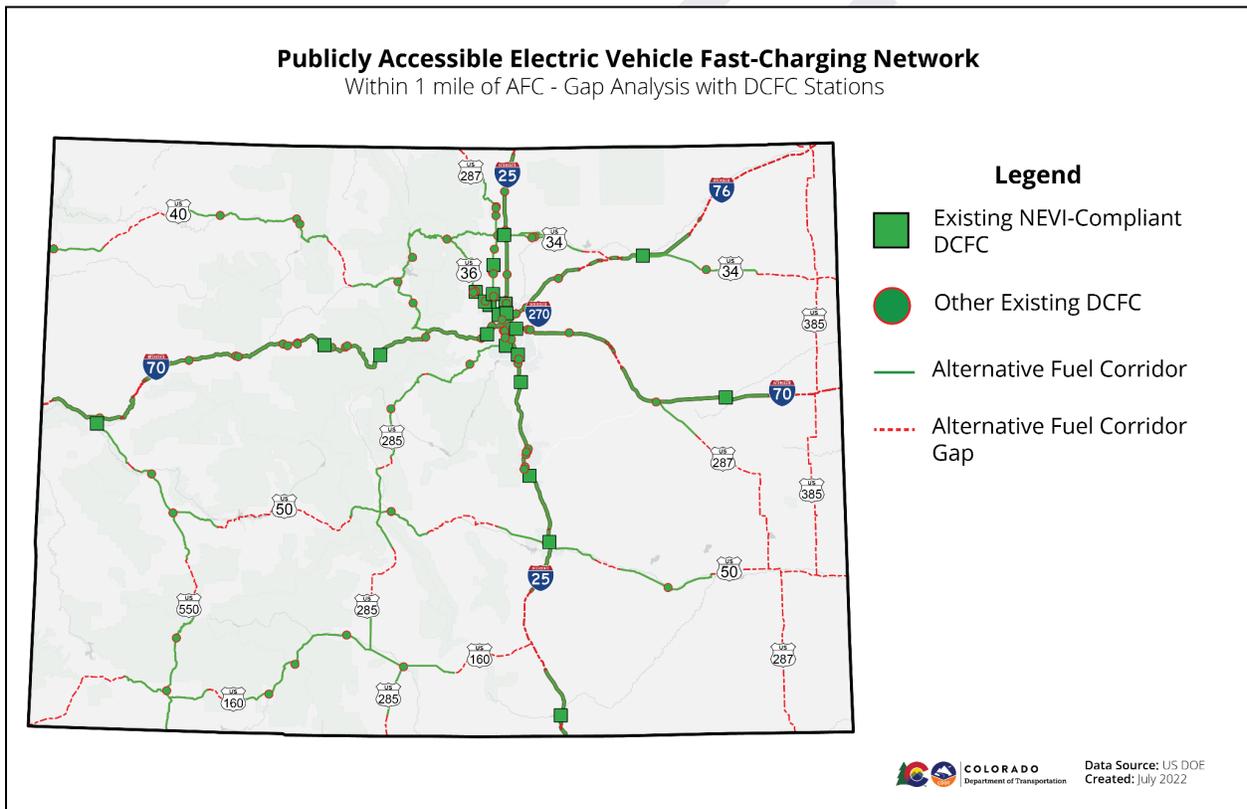


Figure 9: Current status of existing NEVI-compliant and NEVI non-compliant DCFCs along Colorado alternative fuel corridors as of July 2022

Known Risks and Challenges

Through past charging infrastructure programs, Colorado has identified known risks and challenges to project implementation that could impede swift progress towards its charging infrastructure goals. These challenges include equipment supply chain delays, Buy America compliance, grid capacity and constraints, and availability of site hosts and matching funds.

The lead times for critical equipment is currently extended and will delay energization of charging stations in this program unless supply chain constraints are alleviated. For example, as of July 2022, projects requiring new transformers are being quoted 60+ weeks for delivery. Smaller pieces of equipment, like meter cans, are also currently delayed by multiple months. The DCFC equipment itself, though also supply constrained, is currently not a major impediment given the other issues that have arisen within the project scope, though that could change with the release of NEVI funding across the country.

Stipulations associated with Buy America compliance also present known challenges for timely project completion and available supply. Colorado supports measures intended to encourage domestic manufacturing of electric vehicle supply equipment (EVSE) and related technologies, but also notes that there have historically been inconsistent interpretations of which EVSE suppliers, if any, qualify as Buy America compliant. Even if multiple compliant suppliers are identified by the Joint Office, increased demand fueled by the nationwide infusion of NEVI funding are likely to significantly reduce available supply in the early years of the program. In order to offset these impacts, a temporary waiver process or other exemption mechanism may be needed to allow for NEVI-funded projects to proceed as onshoring of EVSE production takes place. In any case, CDOT and CEO will ensure that implementation of the NEVI program in Colorado abides by all Buy America requirements, in line with current and future guidance from the Joint Program Office.

In certain locations, particularly rural areas of the state, grid capacity may be a constraint that limits opportunities for installing the required number of 150 kW stations to reach the NEVI standard. Projects of this scale represent a significant load that will be challenging in some areas. An additional challenge throughout much of Colorado is a lack of cellular coverage, which can limit the data connectivity from charging stations. In both of these cases, creative solutions and the use of innovative grid-edge, off-grid, and other charging systems may be required to continually power and collect data from stations in certain more remote locations.

Additionally, identifying site hosts and securing matching funds will potentially present a challenge given the scale of projects meeting the NEVI standard and the funding required to complete them. In areas where high utilization is present, private capital will be readily available, but in more outlying areas of the state, where high utilization may be several years off, site host match could present a challenge in the near term. In such cases, Colorado will consider options to offer greater operational and maintenance funding or state grant funds, as appropriate, to offset low utilization and attract more interest from potential site hosts. Alternatively, Colorado may propose to fund some sites with fewer than four chargers initially, with the expectation that sites will expand to meet the NEVI requirement within a set period of time.

EV Charging Infrastructure Deployment

Colorado has a long history of developing and administering charging infrastructure grant programs. Starting in 2013, CEO and RAQC launched Charge Ahead Colorado, which provided grants for Level 2 and DCFC stations in locations that give Coloradans the confidence to do their daily driving in electric vehicles. Other programs have followed – for example the DCFC Corridors Program and DCFC Plazas

Program – each designed to address other aspects of the market, such as high-speed charging along Colorado’s major transportation corridors and in urban areas for those without access to home charging.

In general, Colorado’s charging market has grown organically through competitive applications to CEO’s grant programs. In some cases, CEO identifies preferred locations, as with the DCFC Corridors program or at Denver International Airport as part of the DCFC Plazas program.

Colorado anticipates employing a similar approach as it programs NEVI funding to meet the following priorities:

1. Construction of new charging locations within identified charging gaps along Colorado’s federally designated Alternative Fuel Corridors, prioritizing those locations serving disproportionately-impacted communities.

Despite significant investments by the state and private operators, there are areas along the federally-designated Alternative Fuel Corridors that still lack DCFC. CDOT and CEO will work with partner agencies and other stakeholders to identify charging gaps, particularly those located in disproportionately impacted communities. These locations will be designated in RFAs as preferred or required locations and, where appropriate, proposals for these locations will be prioritized over proposals for other sites.

2. Expansion of existing charging stations along Colorado’s federally designated Alternative Fuel Corridors by adding additional chargers and increasing power as required by NEVI standards.

As noted above, there are a number of stations along Colorado’s federally designated Alternative Fuel Corridors that do not currently meet NEVI requirements but can be cost-effectively upgraded by adding chargers and power modules. Many of these sites were future-proofed as part of the DCFC Corridors Program by upsizing transformers, including additional conduit and wiring, and installing mounting pads at the time of original construction. CEO will prioritize the expansion of sites along Interstates and other designated corridors that serve disproportionately impacted communities, as well as those that provide access to high-visitation tourist destinations.

3. Construction of additional charging locations in areas where charging infrastructure already exists but is insufficient to meet the growing EV market demand.

Colorado’s EV market is rapidly expanding, with the EV share of new vehicle sales surpassing 10% over the last several months. Expansion of charging infrastructure in the Metro area, other population centers, and near recreational destinations will be needed to accommodate growth of the market and maintain a positive user experience for travelers looking for available chargers away from home.

4. Construction of charging infrastructure to support the electrification of the medium and heavy duty vehicle market.

While research and engagement with commercial freight and delivery fleets indicates that there is a general industry preference for “behind-the-fence” depot charging, there is still likely to be a need for some medium- and heavy-duty vehicles to charge at publicly-available stations as vehicle capabilities and fleet adoption rates advance. CDOT and CEO will work with stakeholders to identify strategies for project prioritization, site design, and operational support for locations intended to serve multiple MHD fleets or a combination of MHD and light-duty users.

The four focus areas identified above align with a recent independent analysis of Colorado’s current EV charging needs and the overall gap between current charger availability and anticipated future demand. In February 2021, CEO released an analysis completed by the International Council on Clean Transportation (ICCT) called “[Colorado Charging Infrastructure Needs to Reach Electric Vehicle Goals.](#)” This analysis looked at the number, type, and distribution of charging infrastructure needed to meet the state’s EV goals and included a county-by-county analysis for Level 2 and DCFC. By and large, the counties showing the greatest DCFC gaps overlap closely with Colorado’s nationally-designated Alternative Fuel Corridors. In particular, I-25, I-70, US 34, US 36, and the northern section of US 287 cross the nine counties with the highest gap between current chargers and future charging needs. In contrast, nearly half of the counties in Colorado have estimated gaps of ten or fewer DCFCs, but these are also the areas presenting some of the greatest grid and market challenges. Counties with smaller but potentially more difficult charging gaps are served by Alternative Fuels Corridors such as US 40, US 50, US 285, US 385, and the southern section of US 287. In all of these cases, NEVI funding will be instrumental in meeting future EV charging demand, while existing state grant programs will ensure access to Level 2 and off-corridor DCFC charging in all parts of the state.

Funding Sources

Colorado anticipates that in the majority of cases, the 20 percent required match for NEVI-funded projects will be provided by the developer or site host responsible for proposing, implementing, and operating the charging facility. However, there may also be cases in which the State of Colorado allows grantees to use other state funding to offset some portion of the required match. In particular, CDOT and CEO will explore options to use state funding to provide some match relief for projects located in disproportionately impacted communities or owned and operated by Disadvantaged Business Enterprises (DBEs). Colorado is fortunate to have multiple funding sources available in addition to federal NEVI dollars, which include:

Colorado Electric Vehicle Fund

In Colorado, EV drivers pay an additional fee of \$50 when they register their vehicle. Of this fee, \$30 goes to the Highway Users Tax Fund (HUTF) to offset lost gas tax revenues, while \$20 goes to the EV Fund which is administered by CEO and used to provide grants through the Charge Ahead Colorado Program. Starting in FY 23, this fee will increase by \$4 for fully electric vehicles and \$3 for PHEVs, and it will continue to increase each year through FY 32 in order to keep pace with inflation.

Colorado Highway Users Tax Fund (HUTF)

Since 2019, following the creation of CDOT’s Office of Innovative Mobility (OIM), the Transportation Commission of Colorado has reviewed and approved annual budgets to fund OIM activities for the upcoming state fiscal year. In each of the subsequent fiscal years, the TC has approved \$1.5 million in Highway Users Tax Fund (HUTF) dollars to support the Electrified Byways and Tourism Program, which funds Level 2 and DCFC projects that facilitate rural EV tourism and local economic development. If approved by the TC, future awardees of this program could potentially leverage state dollars against NEVI funding, provided that the project fell within the geographic eligibility for NEVI and was built to meet the more stringent NEVI standard.

Community Access Enterprise (CAE)

This Enterprise was created in 2021 as part of SB21-260 and is funded through a retail delivery fee. Revenues generated by the fee may be used by the enterprise’s Board of Directors to fund programs that support EV charging for light-, medium-, or heavy-duty vehicles, hydrogen fueling stations, or eBikes and EVs for low- and moderate-income Coloradans. According to the [Community Access Enterprise 10 Year Plan](#), between \$6.9 and \$10.4 million will be allocated for DCFC corridor and plaza charging in the first

three years of the Enterprise, and these dollars could be utilized as partial or full match for NEVI funding if allowed by the Board.

Volkswagen Settlement Trust (VW Settlement)

The State of Colorado received \$68.7 million from the national Volkswagen Settlement, of which \$10.3 million was allocated to electric vehicle charging infrastructure through CEO's DCFC Corridor Program, DCFC Plazas Program, and Charge Ahead Colorado (CAC) Program. Colorado's [Beneficiary Mitigation Plan](#) outlines the programs and strategies to reduce transportation emissions with this source of funding.

2022 Infrastructure Considerations

CDOT and CEO have identified more than 50 geographic zones along Colorado's 13 designated Alternative Fuel Corridors that represent gaps in the state's current NEVI-compliant DCFC network. The table below summarizes these potential NEVI investment areas, the local electric utilities, and whether the project is likely to require construction of a new charging location or the upgrade of an existing one. All zones listed on the table are general and Colorado will remain open to alternative proposals for project locations, costs, and timing based on stakeholder and applicant input over the course of the implementation of the NEVI program.

Project costs associated with DCFC deployments can be considerable and tend to vary due to a number of factors, including the power output of the charging stations installed, access to existing power supply, duration of warranties and networking fees committed upfront, the need for line extensions, and opportunities to offset additional costs through utility make-ready programs and other funding sources. Colorado anticipates that project costs for new NEVI-compliant sites will range from approximately \$500,000 to \$750,000 per location, depending on the variables outlined previously. Project costs will be driven by equipment selection and power capabilities. Sites selecting a mix of higher powered stations, including ultra-fast DCFC, may incur costs beyond these estimates. Recently, additional cost impacts have been observed as a result of inflation, which could continue to drive up the average project costs. At the high end of the cost estimate, Colorado anticipates being able to fund approximately 12 sites using NEVI funds during the first year of the program.

For locations with charging stations already in place, but requiring upgrades in order to be compliant with the requirements of the NEVI program, Colorado anticipates that project costs will range from approximately \$200,000 to \$400,000 per location, depending on the extent of the required upgrades. In certain instances, upgrading existing sites to meet the NEVI requirements may present an opportunity to expeditiously expand the statewide charging network at relatively low cost. For example, the DCFC Corridor Program sites constructed in Colorado over the past three years have been future-proofed with extra conduit and power capacity sized to accommodate additional stations in the future. These and other existing locations may offer opportunities to leverage NEVI funding against prior investments, allowing Colorado to stretch its federal formula dollars further and serve more areas of the state with a limited amount of funding.

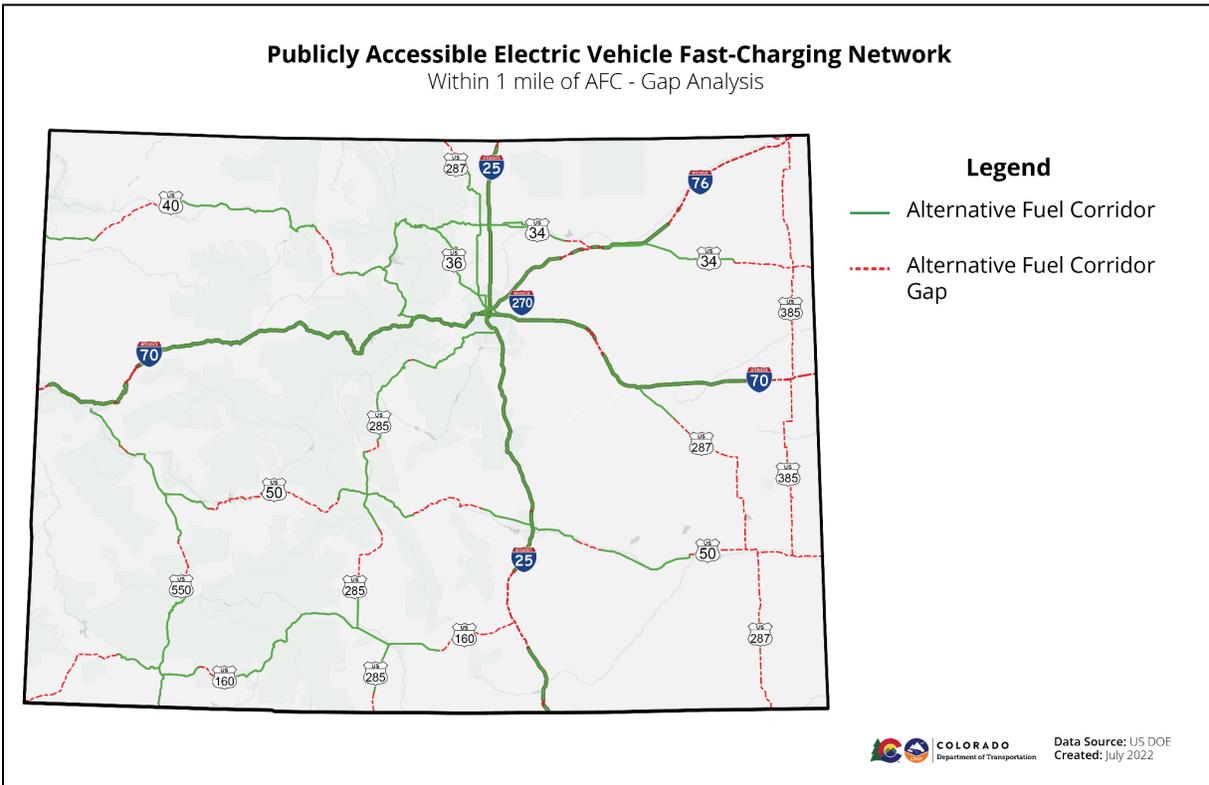
Table 2: Current gaps in the NEVI-compliant DCFC charging network along designated alternative fuel corridors in Colorado

Current Gaps in the NEVI-Compliant DCFC Charging Network			
<u>Route</u>	<u>Geographic Zone</u>	<u>Electric Utility</u>	<u>New or Upgrade?</u>
I-25	Wellington - Wyoming Border	Poudre Valley REA	New
I-25	Pueblo - Trinidad	San Isabel Electric Association	New
I-70	Utah Border - Grand Junction	Grand Valley Power / Xcel Energy	New
I-70	Grand Junction - Rifle	Grand Valley Power / Xcel Energy	New
I-70	Aurora - Flagler	CORE Electric Cooperative / Mountain View Electric Association	New
I-70	Flagler - Kansas Border	KC Electric Association	New
I-76	Commerce City - Fort Morgan	United Power / Morgan County REA	New or Upgrade
I-76	Fort Morgan - Julesburg	Highline Electric Association	New
I-270	Commerce City - Denver	Xcel Energy	New
US 34	Granby - Estes Park	Mountain Parks Electric / Poudre Valley REA	New or Upgrade
US 34	Estes Park - Loveland	Poudre Valley REA	New
US 34	Loveland - Kersey	Poudre Valley REA	New or Upgrade
US 34	Kersey - Fort Morgan	Poudre Valley REA / Morgan County REA	New or Upgrade
US 36	Boulder - Estes Park	Xcel Energy / Poudre Valley REA / Town of Lyons / Town of Estes Park	New or Upgrade
US 40	Dinosaur - Craig	Moon Lake Electric Association / Yampa Valley Electric Association	New or Upgrade
US 40	Craig - Steamboat Springs	Yampa Valley Electric Association	New or Upgrade
US 40	Steamboat Springs - Kremmling	Yampa Valley Electric Association / Mountain Parks Electric Association	New or Upgrade
US 40	Kremmling - Idaho Springs	Mountain Parks Electric Association / Xcel Energy	New or Upgrade
US 50	Montrose - Gunnison	Delta Montrose Electric Association	New or Upgrade

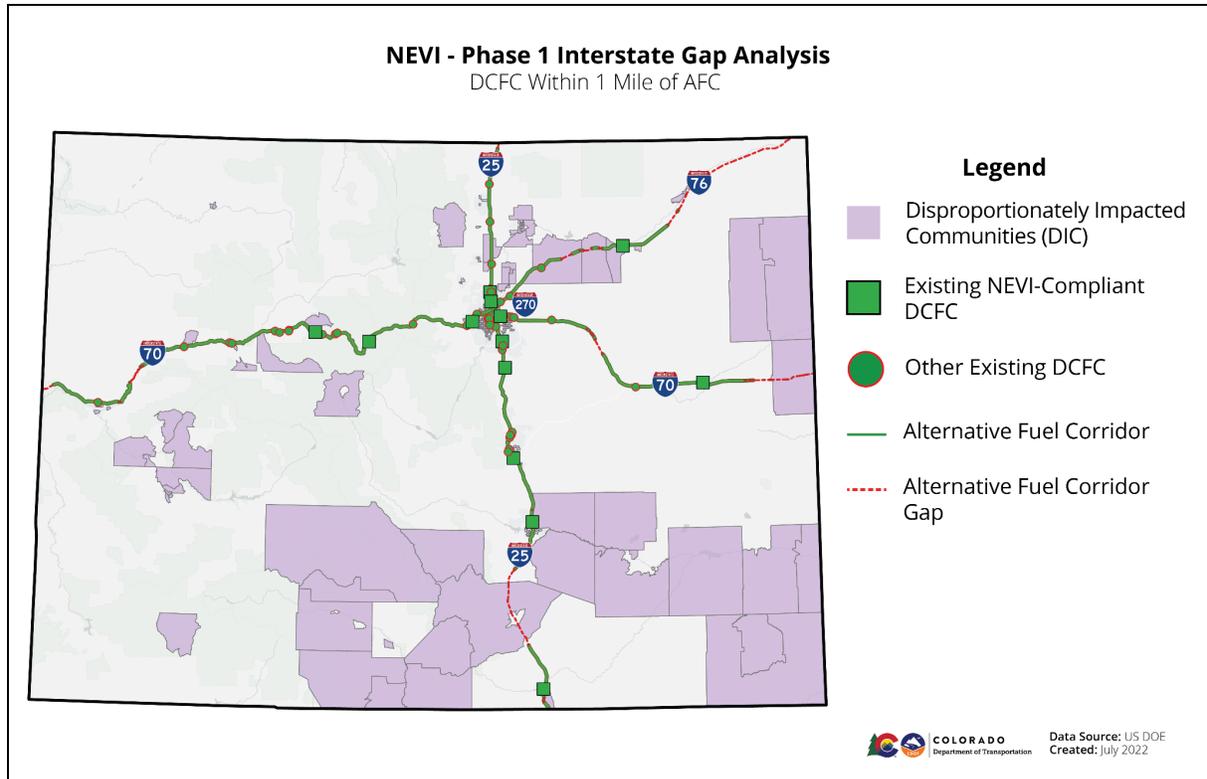
		/ City of Gunnison	
US 50	Gunnison - Salida	Gunnison County Electric Association / Xcel Energy	New or Upgrade
US 50	Salida - Cañon City	Xcel Energy / Sangre de Cristo Electric Association / Black Hills Energy	New or Upgrade
US 50	Cañon City - Pueblo	Black Hills Energy / San Isabel Electric Association	New or Upgrade
US 50	Pueblo - Fowler	Black Hills Energy	New
US 50	Fowler - Las Animas	Black Hills Energy / Southeast Colorado Power Association / City of Las Animas	New or Upgrade
US 50	Las Animas - Lamar	City of Las Animas / Southeast Colorado Power Association / City of Lamar	New or Upgrade
US 50	Lamar - Kansas Border	Southeast Colorado Power Association	New
US 160	New Mexico Border - Cortez	Empire Electric Association	New
US 160	Cortez - Durango	Empire Electric Association / La Plata Electric Association	New or Upgrade
US 160	Durango - Bayfield	La Plata Electric Association	New
US 160	Bayfield - Pagosa Springs	La Plata Electric Association	New
US 160	Pagosa - South Fork	La Plata Electric Association / San Luis Valley REC	New or Upgrade
US 160	South Fork - Alamosa	San Luis Valley REC / Xcel Energy	New or Upgrade
US 160	Alamosa - Fort Garland	Xcel Energy	New
US 160	Fort Garland - Walsenburg	Xcel Energy / San Isabel Electric Association	New
US 285	Englewood - Bailey	CORE Electric Cooperative	New or Upgrade
US 285	Bailey - Fairplay	CORE Electric Cooperative / Xcel Energy	New or Upgrade
US 285	Fairplay - Buena Vista	CORE Electric Cooperative	New or Upgrade
US 285	Buena Vista - Poncha Springs /	Sangre de Cristo Electric	New or Upgrade

	Salida	Association / Xcel Energy	
US 285	Poncha Springs / Salida - Saguache	Xcel Energy / San Luis Valley REC	New
US 285	Saguache - Monte Vista	San Luis Valley REC	New
US 285	Alamosa - New Mexico Border	Xcel Energy / San Luis Valley REC	New or Upgrade
US 287	Wyoming Border - Ft. Collins	Poudre Valley REA	New or Upgrade
US 287	Fort Collins - Longmont	City of Fort Collins / Poudre Valley REA / City of Longmont	New or Upgrade
US 287	Limon - Hugo	Mountain View Electric Association / KC Electric Association	New or Upgrade
US 287	Hugo - Kit Carson	Mountain View Electric Association / KC Electric Association	New
US 287	Kit Carson - Lamar	KC Electric Association / Southeast Colorado Power Association	New
US 287	Lamar - Springfield	Southeast Colorado Power Association / City of Lamar	New
US 287	Springfield - Oklahoma Border	Southeast Colorado Power Association / City of Springfield	New
US 385	Julesburg - Holyoke	Highline Electric Association	New
US 385	Holyoke - Wray	Y-W Electric Association	New
US 385	Wray - Burlington	Y-W Electric Association / KC Electric Association	New
US 385	Burlington - Cheyenne Wells	KC Electric Association	New
US 385	Cheyenne Wells - Granada	KC Electric Association / Southeast Colorado Power Association	New
US 550	Montrose - Ouray	Delta Montrose Electric Association / San Miguel Power Association	New or Upgrade
US 550	Ouray - Purgatory	San Miguel Power Association	New or Upgrade
US 550	Purgatory - New Mexico Border	La Plata Electric Association	New or Upgrade

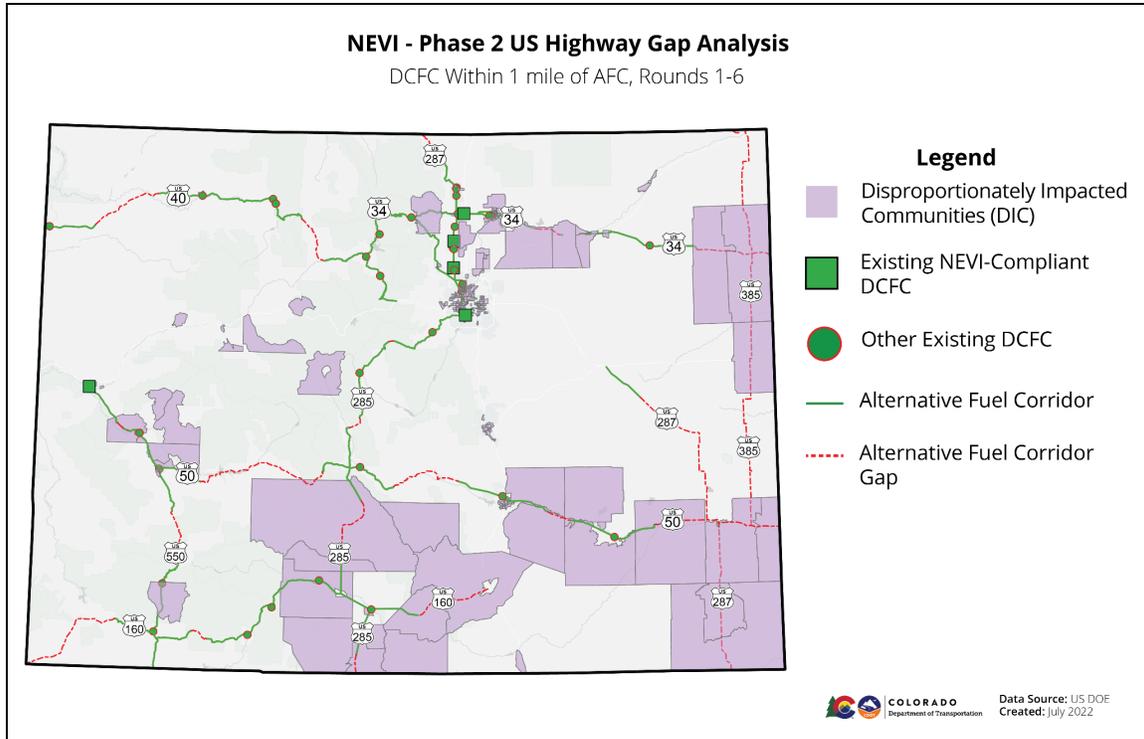
Upgrades of Corridor Pending Designations to Corridor Ready Designations



Phase 1 of Colorado’s program implementation will focus on the use of its NEVI allocation to fill the charging gaps along its four designated Interstates through the construction of new NEVI-compliant charging locations and upgrade of existing, non-compliant sites. Initial analysis indicates that there are at least nine such gaps along I-25, I-70, I-76, and I-270. In reviewing applications for new NEVI-compliant charging projects, strong preference will be given to those located within (and supported by residents of) disproportionately impacted communities identified using the Justice40, EnviroScreen, and Colorado EV Equity Plan mapping tools. Initial analysis indicates that in at least four of the nine identified Interstate gaps there are strong opportunities to fund projects located in disproportionately impacted communities.



Phase 2 of Colorado’s program implementation will focus on filling charging gaps along the state’s nine designated US highways through the construction of new NEVI-compliant charging locations and upgrade of existing, non-compliant sites. Initial analysis indicates that there are more than 40 such gaps along US 34, US 36, US 40, US 50, US 160, US 285, US 287, US 385, and US 550. As with Phase 1, in reviewing applications for new NEVI-compliant charging projects, strong preference will be given to those located with (and supported by residents of) disproportionately impacted communities. CDOT and CEO staff will work to analyze identified gaps to determine how many of them present the opportunity to site projects in disproportionately impacted communities and will work with community members and developers to encourage proposals from these areas.



Phase 3 of Colorado’s program implementation will invest any remaining NEVI funds in augmenting fully built-out corridors with additional station construction or upgrades intended to meet growing charging demand. These areas will be identified based on usage rates at existing DCFC locations, vehicle registration rates, and input from community and industry stakeholders. Funding in this phase will also be made more available to MHD-specific charging projects in areas where current and anticipated demand justifies such investments.

Increases of Capacity / Redundancy Along Existing AFCs

While the principal focus of the NEVI program is to fund projects filling 50-mile charging gaps along designated corridors, it will also be important to consider future demand in areas with anticipated high utilization. Therefore, CDOT and CEO will require grantees to future-proof project sites by installing additional conduit, transformer capacity, and physical space for expansion when utilization makes this necessary. Colorado will also consider requiring or incentivizing grantees constructing new or upgraded charging locations to surpass the NEVI standard in terms of number and power level of chargers in order to keep pace with anticipated future demand and advances in charging speed for future vehicles coming to market.

Freight and Commercial Vehicle Considerations

The NEVI program is primarily intended to support regional and interstate travel by light-duty passenger vehicles, the ZEV market for MHD vehicles is developing quickly, so it will be important to consider program policies and project requirements that facilitate the use of new and upgraded charging locations by a variety of future users, including commercial vehicles. This will become even more important if Colorado’s AQCC adopts the Advanced Clean Truck (ACT) rule that is scheduled for a proposed rulemaking in late 2022 and would potentially apply to new MHD vehicles starting in model year 2027. In order to support the future utility of NEVI-funded stations for a wide variety of users, Colorado will

consider tools to encourage future-proofing of projects' locations, power levels, and site design to facilitate future commercial users. This approach may include funding projects co-located at truck stops and intermodal hubs or requiring pull-through designs and higher charging capability.

Public Transportation Considerations

Transit agencies throughout Colorado have been proactive in beginning to transition their fleets to zero emission options through a combination of state, federal, and Volkswagen Settlement grants. The State of Colorado is actively working to support transit agencies in their planning, procurement, deployment, and performance tracking for transit ZEV projects and expects the number of transit ZEVs to grow from the 63 currently operating in the state to achieve the target of 1,000 by 2030 as expressed in the Transit ZEV Roadmap. While stakeholder engagement and best practice research indicate that most transit agencies prefer to charge in depots overnight, there may be some situations in which transit agencies can benefit from public opportunity charging for vans and shuttle buses. This may especially be the case at park and ride facilities or other high-volume destinations such as hospitals and airports. Colorado will explore options to require or incentivize transit charging accommodations at specific projects in which such a need is identified.

State, Regional, and Local Policy

Generally speaking, Colorado has a very supportive policy environment for EV adoption, including the construction and operation of DCFCs. Through the Colorado Electric Vehicle Coalition (CEVC), the State of Colorado coordinates with regional planning organizations, county and municipal governments, and other key stakeholders to support the development and implementation of streamlined permitting, supportive zoning, and EV-friendly building codes across the state. Colorado will continue to work with interested parties in making project development more efficient and cost effective in order to deliver the maximum benefits from the NEVI program.

Implementation

CDOT has experience in supporting the deployment of EV charging stations through close collaboration with CEO in the Charge Ahead Colorado (CAC), DC Fast-Charging Corridors, and DC Fast-Charging Plazas programs, and the best practices developed through these past efforts will be applied to implementation of the NEVI program. As in previous programs, the State of Colorado does not seek to own or operate EV charging stations outside of its own fleet facilities, but rather will contract with third parties through a competitive process. Selected vendors will be required to share data with the State in order to measure the effectiveness of the program and to maximize efficiency over the lifetime of the charging sites. To maximize participation in rural and disproportionately impacted communities, ongoing outreach and engagement with EV charging providers, utilities, potential site hosts, and related stakeholders will be conducted to ensure that charging installations meet local community needs in addition to those of statewide and interstate travelers.

Strategies for EVSE Operations & Maintenance

Electric vehicle charging operations are complex, with uptime being a critical challenge for EVSE providers. Providers will need to know about any issues with charging operations in real-time to prevent lost revenue and avoid unsatisfactory user experiences. To minimize downtime, a real-time operational feed for charging operations should be made available for the public that includes current availability of chargers and parking spaces. Contracts will include minimum requirements for operations and

maintenance, including achieving a network uptime of 97 percent or greater and grantees will be required to meet all Federal and state requirements. The selected vendors will be responsible for station maintenance and repair, and ensure resources are available to conduct regular inspections and diagnose problems in a timely manner throughout the five year NEVI operational period. Recognizing that uptime is just one metric for measuring performance, Colorado will also consider developing separate metrics for customer satisfaction to be integrated into grantee reporting requirements.

Strategies for Identifying Electric Vehicle Charger Service Providers and Station Owners

CDOT and CEO will select vendors through a competitive solicitation process. The state will establish a robust process to solicit and evaluate vendor proposals, including criteria that support projects in disproportionately impacted communities, projects in rural areas, and site design elements that support MHD vehicle usage and future expandability. Colorado will seek to award multiple vendors in the early years of the program as a means of evaluating the equipment performance, customer service, and technology features over time. User feedback and case studies will be used as a means of improving subsequent phases of Colorado's NEVI program. CDOT and CEO will begin the solicitation process in late 2022 or early 2023.

Strategies for EVSE Data Collection & Sharing

CDOT and CEO will collect data on the usage of the EV charging stations for performance measurement and to report to the Joint Office on a quarterly and annual basis to measure program progress. In order to enable data sharing with third parties, selected vendors will be required to provide real-time availability of each plug needs through an open API. At a minimum, the data collected will include:

- Charging station location
- Connector type
- Power level
- Availability status
- Charging station uptime
- Pricing
- ADA accessibility

Contracts with vendors will also include requirements to provide anonymized usage data. This data will help CDOT and CEO understand the demand for charging infrastructure in Colorado and help the state identify where more infrastructure might be needed.

Strategies to Address Resilience and Emergency Evacuation

Maintaining and strengthening the resilience of the state transportation system in the face of both natural and human-caused disasters has been a growing area of focus for CDOT and other state agencies for nearly a decade. Since 2013, Colorado has experienced major flooding, increasingly frequent and destructive wildfires, rockfall, avalanches, ransomware cyber attacks, and a global pandemic. Each of these events created sudden and unpredictable impacts on Colorado's transportation network that required a short-term, reactive response but also inspired staff and leadership to consider long-term, proactive approaches to mitigating future risks. One result of this is the creation of the [CDOT Resilience Program](#).

The deployment of EV charging infrastructure across the state and country will create new opportunities for mobility, sustainability, and economic development, but it will also create new areas of risk. As the

electrical grid becomes more closely integrated with the transportation system, disruptions occurring in one system may more quickly spread to the other. Increased reliance on electricity as a fuel may expose CDOT, fleet managers, transit agencies, and the general public to risks that they formerly did not have to consider and currently have little ability to address. Likewise, those who manage the electric grid and respond to unexpected incidents may not yet fully comprehend the implications that their decisions will have in the transportation sector. Overall, more understanding and points of connection will need to be built between the utility and transportation communities to effectively manage this new landscape.

In Colorado, CDOT [Policy Directive 1905.0 “Building Resilience into Transportation Infrastructure and Operations”](#) directs the Department to incorporate resilience into strategic decisions about transportation assets and operations. To accomplish this goal, staff have developed a 4R framework for evaluating individual assets or entire systems in terms of their Robustness, Redundancy, Resourcefulness, and Rapidity, a process which helps staff to identify the actions they can take to mitigate risk in each of these areas. CDOT also developed an Asset Resiliency Mapping Tool that overlays current transportation assets and future project locations with geospatial data on a number of risk factors, such as 100- and 500-year flood plains, wildfire risk, avalanche paths, geohazard areas, and more. This tool can be used to quickly determine whether a proposed project falls within one or more risk zones, and if so, whether the risk can be mitigated in that location or lessened by selecting an alternative site. In the case of the NEVI program, this will allow the State to work with private or public sector partners on siting charging infrastructure in areas with less probability of future disruption.

Another lens developed by CDOT staff for considering transportation resiliency in project selection is [criticality](#), which shifts the focus from a specific asset or location to the system level. Criticality is a multifactor score that assesses the importance of a given asset to the functioning of the transportation system as a whole. Segments of highway or individual assets with high criticality scores therefore represent key points in which localized failure can have much broader impacts. The six, equally-weighted criteria that contribute to the criticality score are Average Annual Daily Traffic (AADT), American Association of State Highway and Transportation Officials (AASHTO) Roadway Classification, Freight Value per Ton, Tourism Dollars Generated, Social Vulnerability Index (SoVI), and System Redundancy. Each criterion is scored on a scale of one to five to determine the overall Criticality score, which seeks to represent the severity of potential impacts on a given roadway segment in terms of local residents, other Colorado travelers, tourists, and the freight industry.

In the case of the NEVI program, these are all important considerations, and System Redundancy may be especially relevant given the still-partial buildout of the state DC fast-charging network. Road closures in Colorado can result in detours that can add hundreds of miles and several hours to a more direct trip. While these are frustrating to any traveler, EV users may face additional barriers if the identified alternative route does not have adequate fast-charging to support them. Therefore, the State of Colorado will work to incorporate the Criticality metric and, more broadly, the concept of charging network redundancy into NEVI project selection processes. They will be aided in this by the Detour Identification Tool and Risk & Resiliency Project Scoring Tool, both developed by CDOT staff. Overall the integration of NEVI projects (and EV charging projects more generally) into Colorado’s broader transportation resiliency framework will ensure that EV users are able to adapt to changing roadway conditions as easily as other travelers, encouraging safe and seamless electric mobility for all Coloradans.

Strategies to Promote Strong Labor, Safety, Training, and Installation Standards

Colorado has been engaged in the topic of workforce development for the zero-emission vehicle market for several years now, based in large part on feedback from stakeholders and fleet managers concerned about a potential lack of trained ZEV mechanics and EVSE technicians. Since 2021, CDOT has collaborated with staff from CEO, CDPHE, the Colorado Department of Labor & Employment, and other

relevant stakeholders to host a ZEV Workforce Development working group to explore and act on these topics. Some initial outcomes include the ongoing development of an EV and Hybrid Automotive Technician certificate program to be offered by the Colorado Community College System (CCCS) and the scoping of a Medium- and Heavy-Duty ZEV Workforce Needs Analysis by the Colorado Workforce Development Council (CWDC). CDOT is also working to develop a state-funded grant program to support new ZEV workforce development project proposals and will explore opportunities to leverage NEVI funding against these dollars to maximize overall impact.

For the NEVI program, CDOT may add certification, training plans, and workforce safety commitments as a criteria for vendor evaluation in the selection process. Selected vendors will be required to comply with local codes, OSHA safety standards, the National Electric Code and other safety and training requirements and best practices. Although labor and workforce training will typically be provided by vendors themselves, in order to ensure that Colorado's workforce is prepared to install and maintain EV infrastructure safely, effectively, and equitably, the state will seek input from workforce development groups, community colleges, and other relevant stakeholders in monitoring and evaluating current labor, safety, training, and installation standards over time. This effort will include identifying gaps in training for Colorado's workforce and working collectively to address them. Quarterly workforce training and certification reports may be required to help the state understand the current status of workforce needs.

Civil Rights

In implementing the NEVI program, CDOT will work with CEO and grantees to ensure full compliance with Title VI of the Civil Rights Act of 1964 (Title VI) and the Americans with Disabilities Act (ADA).

Title VI

Title VI prohibits discrimination on the basis of race, color, and national origin in programs and activities receiving federal financial assistance. As described in CDOT's Policy Directive 604.0 on Non-Discrimination, CDOT is committed to achieving full compliance with Title VI and all related non-discrimination laws. As part of the directive, CDOT has developed a Limited English Proficiency (LEP) Plan to improve access to services for Coloradans with limited English proficiency.

ADA Compliance

ADA prohibits discrimination against individuals with disabilities in all areas of public life. Projects completed through State of Colorado programs will be required to incorporate accessible design standards to ensure that charging is available and accessible to all drivers. Colorado's current accessibility design guidance states that 5 percent of parking stalls (and no fewer than one parking stall) must adhere to the accessible design standard put forth by the [U.S. Access Board](#). Colorado will continue to update and refine its accessibility design standards in keeping with developing federal guidance and feedback from stakeholders and the general public to ensure that all Coloradans have safe and convenient access to EV charging across the state.

Equity Considerations

One of the most cited barriers to EV adoption is a lack of available EV charging infrastructure, and this issue is especially prevalent for those who do not own their own home or reside in multifamily housing, since these individuals are less likely to have a dedicated parking space or access to shared EV charging equipment. For those without home charging, the availability of public charging stations, particularly DC fast chargers, is critical for enabling EV ownership. That said, access to charging infrastructure is just one barrier to EV usage, so CDOT and CEO will continue to work with their partners and stakeholders to develop a holistic set of strategies to increase access for those living in disproportionately impacted

communities. Ensuring that low-income and disproportionately impacted groups have equitable access to the benefits of electrified mobility is fundamental to accelerating EV adoption in the state and building a more just mobility future.

In 2021, Governor Polis signed House Bill 21-1266 (HB21-1266), the Environmental Justice Act, into law. The Environmental Justice Act commits to strengthening environmental justice and prioritizes reducing environmental health disparities in disproportionately impacted communities. Hence, programs and policies that support EV equity are already under development in Colorado, as the state is committed to center equity in all its transportation electrification programs. To meet this commitment, CDOT will conduct outreach efforts and activities to encourage greater program benefits and participation by underrepresented groups including minority, women, disabled, low-income, and rural communities. Understanding the challenges and needs of these communities is critical and CDOT will work with community leaders to provide the necessary opportunities to engage and provide input in the siting, design, and operation of charging locations funded through the NEVI program. The plan reflects that the concerns, questions, input, and ideas from the public comments/public outreach events will have had a direct effect on the corridor and EV site selection.

Promoting equity outcomes will continue to evolve, as individual participants' understanding continues to grow and technology continues to evolve. As communities and technology change, revisiting the process is vital. Hence, outreach and program development strategies will be part of an iterative process to ensure that projects are directly benefiting DI communities and creating new opportunities for individuals who wish to participate in the electrified mobility economy in Colorado.

Identification and Outreach to Disadvantaged Communities (DACs) in the State

In keeping with the NEVI Guidance provided by the Joint Program Office, CDOT and CEO will use the Electric Vehicle Charging Justice40 Mapping tool created by Argonne National Laboratory to identify disadvantaged communities (DACs) in the state and prioritize the investment of NEVI funds in these areas.

Aligning with other efforts in Colorado, CDOT will supplement DAC identification with state developed equity tools. Through the Colorado EV Equity Study, CEO developed the EV Equity Dashboard and prioritization tool to help identify priority areas based on socioeconomic and transportation factors. Similarly, the [EnviroScreen](#) tool developed by CDPHE summarizes data at the census block group level, categorizing communities based on important characteristics such as geographic, socioeconomic, and health-related factors. CDPHE is also currently developing an interactive environmental justice mapping tool that meets the state Environmental Justice Act's definition of disproportionately impacted communities based on demographic factors. These tools will be used to complement the Federally-mandated Justice40 Mapping Tool to help identify DAC and Justice40 communities.

In 2021, the Governor signed Senate Bill 21-260 which established more than \$5 billion over ten years toward Colorado's transportation system. This included more than \$730 million toward transportation electrification, allocated through three new enterprises - the Clean Transit Enterprise established at CDOT, Community Access Enterprise established at CEO, and Clean Fleet Enterprise established at CDPHE. Together these enterprises held more than a dozen stakeholder meetings in the Spring of 2022 for the purposes of developing their 10 year enterprise plans which outline how each enterprise will use its revenue to execute its business purpose. Several of these meetings were specifically focused on equity. Some of the key takeaways from the meetings included:

- Importance of coordination between different stakeholders
- Maximize statewide air quality benefits while also considering public health, economic

- development, and GHG reductions in disproportionately impacted communities
- Focus on filling gaps not met by other programs

Building upon learnings from previous engagement efforts, CDOT identified the following target groups to help guide Justice40 and DAC initiatives:

- Low-income individuals
- People of color
- Individuals with disabilities
- Older adults
- Linguistically isolated communities
- Rural communities
- Environmental justice advocacy groups
- Workforce development organizations
- Public transit organizations

Best practices identified in the EV Equity Study indicate that equitable transportation electrification can only be achieved by being mindful that certain communities have unique and substantial obstacles in adopting electrification, whether driven by historical treatment, adverse environmental impacts, or socioeconomic factors. It is also critical that outreach and engagement with these groups occurs using relevant language and cultural context. CDOT and CEO will strive to make participation in the NEVI program development and implementation culturally and linguistically accessible, relatable, and appropriate for the public. As such, CDOT will work to provide interpretation and translation of program materials in other languages as requested by community partners.. Colorado will also seek opportunities to identify and employ innovative stakeholder engagement tools, including options for compensating community members for their time spent in planning activities and integrating community participation into the project scoping and selection process.

Process to Identify, Quantify, and Measure Benefits to DACs

Colorado's NEVI Plan implementation will ensure that at least 40 percent of the benefits of NEVI funding accrue to DACs, including individuals with disabilities, rural residents, and people characterized as being underserved as outlined by the Justice40 Initiative in Executive Order 14008 and the NEVI guidance.

As part of the Colorado EV Equity Study, CEO developed an eight-step process toolkit that can be used to help support equitable outcomes in transportation electrification projects. The process includes engaging with stakeholders, defining goals and outcomes, identifying assets and deficiencies, incorporating community-grounded indicators, modifying program design based on feedback, reviewing progress with the community, evaluating program effectiveness, and reporting back to the community. CDOT and CEO will follow this process to work with DACs in identifying and quantifying benefits of the NEVI program.

CDOT is committed to measuring the benefits of the NEVI program by utilizing both quantitative and qualitative indicators that will be developed based on community needs and prioritizations. For example, on the most direct level, measuring DAC benefits may include quantifying the amount and percentage of NEVI funding invested within the boundaries of Justice40 areas, but other qualitative metrics such as education and outreach activities may also be tracked as a means of measuring trust-building or increased employment opportunities within the community. CDOT and CEO will remain open to additional benefit measurement recommendations from partner communities and also work to integrate evolving national standards established by the Joint Program Office for continued improvement in measuring the benefits of the NEVI program in Colorado.

NEVI Plan Benefits to DACs

The anticipated benefits of Colorado's NEVI Plan include both direct benefits such as the number and dollar value of infrastructure projects located within Justice40 boundaries, as well as indirect benefits such as clean energy job creation related to infrastructure installation and maintenance. NEVI funds can also be used for job training which could provide upward mobility for residents of DACs. NEVI funds stand to benefit DACs in three areas: social, environmental/health, and economic.

Social

- Improving clean transportation access through the location of charging stations
- Increasing parity of clean energy technology access and adoption
- Providing charging infrastructure that can serve transit, carshare, and rideshare vehicles, where appropriate
- Outreach and education programs to prevent gentrification-induced displacement resulting from new EV charging infrastructure

Environmental / Health

- Decreasing the transportation energy cost burden on residents by enabling reliable access to affordable charging
- Reducing environmental exposures to transportation emissions

Economic

- Supporting access to clean energy careers, job training, and small business creation in disadvantaged communities
- Increasing support for local businesses through strategic placement of charging infrastructure
- Increasing access to low-cost capital for more equitable adoption otherwise costly charging infrastructure

Labor and Workforce Considerations

In May 2019, Governor Polis released the [Roadmap to 100% Renewable Energy by 2040 and Bold Climate Action](#) with a goal of establishing Colorado as a leader in the clean energy economy, including high-quality education and training, high-paying jobs, and protecting Colorado's environment.

According to the [Clean Jobs Colorado 2021 Report](#) produced by E2, the energy sector is described as one of Colorado's largest employers, accounting for about 150,000 workers in jobs in nearly every county in the state. Colorado employment projections for EV charger installation, maintenance, and repair have an average growth rate of 1.63% over ten years (2020-2030), and currently these occupations have an estimated 12,094 annual openings. In 2021, the passage of House Bill 21-1149 (HB21-1149) authorized the creation of an Energy Sector Career Pathway to be integrated into the state's educational support platform, called [My Colorado Journey](#).

As EV adoption grows and the build-out of charging infrastructure increases, the demand for an in-state EV workforce and associated training programs will increase as well. Having a coordinated workforce development plan is key to ensuring Coloradans are prepared for new and in-demand jobs and empowered to participate in the continued economic growth of the state. In order to remain ahead of this industry shift, CDOT created a ZEV Workforce Development group to address the training and skill sets needed for this transition. In the past year, CDOT has been working with partner agencies and key stakeholder groups (including Colorado Department of Labor and Employment, Colorado Department of Higher Education, Colorado Department of Public Health and the Environment, Colorado Department of Local

Affairs, Colorado Energy Office, Colorado Community College System, automotive dealerships, automotive repair shops, and fleet managers) to determine what kind of programmatic and financial support is needed in order to develop a robust electric vehicle workforce in Colorado.

Electrical workers, maintenance technicians, and installers will be needed to serve this new industry. The Joint Program Office released proposed minimum standards for EV charging. The standards emphasized strong workforce standards such as the Electric Vehicle Infrastructure Training Program (EVITP) to increase the safety and reliability of chargers while creating and supporting good-paying, highly skilled union jobs in communities across the country. Currently there are [14 EVITP](#) certified contractors in Colorado. CDOT will continue working with our partners to promote EVITP training and certification opportunities, as well as other pathways for participation in the emerging ZEV economy. Training and upskilling will build quality jobs for women, people of color, and underserved workers including those from rural and tribal communities. In order to support an equitable landscape of opportunity for this developing workforce, CDOT will prioritize support to DAC communities in grants for training opportunities, apprenticeship programs, equipment purchases, and scholarships.

Cybersecurity

In order to maintain a reliable EV charging ecosystem that protects consumers and the national electricity grid, grant awardees must secure connected EV charging infrastructure against possible cyberattacks. This includes, but is not limited to, protecting physical charging infrastructure, the EV Charging Station Management System (EVCS) and web applications from unauthorized physical or remote access. Grant awardees are required to comply with NIST 800 (<https://csrc.nist.gov/publications/sp800>) series standards before, during, and after completion of NEVI station construction.

NEVI grant recipients will be required to protect against and actively monitor for:

- Firmware manipulation
- Billing manipulation
- Bot recruitment and network proxy
- Denial of Service (DoS) attacks
- Charging Data/Record Theft
- Personally identifiable information leakage
- Payment fraud
- Demand-supply manipulation attacks (synchronized charging demand/discharge supply disruption)

Applicants for NEVI funding managed by the State of Colorado will be required to submit a cybersecurity plan detailing their approach to this threat as well as how they will respond to potential incidents, including reporting to the State of Colorado if and when such events occur. Grantees will be expected to maintain and update their cybersecurity plans over the life of the program and, upon request, demonstrate that it remains effective and is being followed to ensure that the NEVI investment and interests of the traveling public are being protected.

Program Evaluation

Historically, projects funded through State of Colorado grant programs have been required to report data for a period of between five and ten years via one of two avenues – either in writing at six month reporting intervals, or through direct read-only data access to the charging stations themselves. This data has been critical to Colorado agency staff as they seek to measure program benefit, identify sites with

high utilization for potential expansion, and quantify air quality benefits based on usage. For programs funded via the NEVI program, Colorado will continue the practice of collecting data from site hosts and incorporate this as a requirement in all grantee agreements established as a part of this program. Since 2021, Colorado has posted reports to an aggregated dashboard of charging station and electric vehicle data called [EValue CO](#) at six month intervals, and CEO staff will continue this practice as NEVI-funded projects become operational in future years.

Discretionary Exceptions

The ability for Colorado to seek discretionary exceptions to the standard NEVI requirements on spacing between infrastructure deployments and distance from a designated corridor is an important tool given the geographic, economic, and demographic realities in the American West. Many states, including Colorado, include US highway and Interstate routes that serve as critical regional connections but simultaneously have low population density and few communities able to host the type of robust charging facility that NEVI standards require. Attempting to site major projects in these areas will likely result in high cost, low-usage deployments of infrastructure that can better serve public charging needs elsewhere. The exception process will help to prevent situations in which meeting the exact letter of the NEVI program guidance fails to support the actual spirit and larger intent of the program.

In the case of Colorado, there is at least one identified location in which the State may seek an exemption to the 50-mile spacing guidance. In northwest Colorado, US 40 has been designated as an EV Pending corridor since 2021, but even prior to that milestone the State of Colorado has been investing in fast-charging along the route through its existing Charge Ahead Colorado and DC Fast-Charging Corridor grant programs. In planning and implementing these projects with the goal of spacing infrastructure at least every 50 miles, it became apparent that there is an 87-mile gap between the Town of Dinosaur and the City of Craig that will be extremely challenging to address. Apart from the community of Maybell (population 36), there are no settlements in this section of US 40. There are also very few businesses located along this section of the corridor that might host charging, and if they did then utilization would remain very low for the foreseeable future given the low level of vehicle traffic along this section of US 40. Given this environment, coupled with the common expectation in areas of the Intermountain West that drivers of any type of vehicle should expect fueling opportunities to be sporadic and prepare accordingly, the State of Colorado plans to pursue an exception to the 50-mile spacing requirement for this segment of roadway and focus limited funds on other, more viable projects.

Separate from the 50-mile spacing requirement along a designated corridor, there are likely to be several areas in Colorado — especially on the Eastern Plains — in which the distance between an Interstate or highway exit and the closest inhabited community is greater than the 1-mile radius required by NEVI. For instance, the City of Julesburg is located along I-76, beyond an existing NEVI-compliant station in Fort Morgan and close to the Colorado-Nebraska border. As such it presents a natural stopping point for travelers, but the distance between the highway exit and the town itself is more than 2 miles. Several other communities such as Iliff, Crook, Sedgwick, and Ovid are similarly oriented a short distance from the closest I-76 exit. While some of these communities have areas of commercial development directly adjacent to the highway interchange, others do not, and therefore Colorado may need to submit future discretionary exceptions in order to serve these rural communities.

While not a permanent exemption, CDOT and CEO will also explore options for the staggered buildout of certain charging locations with anticipated low utilization. In CEO's experience, it may be difficult to find a site host or station operator willing to provide the necessary match in these areas. In addition, because demand charges can play an outsized role for low utilization stations, staggered buildout would lead to reduced operational costs in initial years. For example, some sites in more rural areas of Colorado may

not require four 150 kW chargers upon opening, but could instead be designed for easy, low-cost expansion to meet the full NEVI standard in the fourth or fifth year of the program. Colorado agency staff will work with communities, industry stakeholders, and federal authorities to identify locations in which this approach is merited.

It is likely that in the process of implementing NEVI-funded programs Colorado will identify other cases in which discretionary exemptions are merited, and agency staff will work with stakeholders and the public to prepare and submit requests for exemptions for consideration by the Joint PO as they arise.

Conclusion

The State of Colorado has been working for many years to support the widespread electrification of the statewide transportation system, and the NEVI program presents a critical opportunity to accelerate this progress while broadening EV accessibility to a more diverse set of communities and individuals across the state. The infusion of federal funding, coupled with the new NEVI flexibilities to upgrade existing charging locations, support operational expenses for up to five years, and integrate battery storage and renewable energy components, among others, will support a more robust and universal charging network for Coloradans and visitors alike. CDOT, CEO, and other partner agencies are excited to collaborate with stakeholders and the traveling public to develop NEVI-funded programs and offerings that address the unique challenges and opportunities in all Colorado communities as together we build a safe, healthy, and sustainable mobility future for our state and our nation.

Appendix A: Existing DCFCs in Colorado

Existing Locations of DCFC Charging Infrastructure

ID	Station Name	Street Address	City	EV Network
198721	Flatiron Crossing	1 W Flatiron Crossing Dr	Broomfield	eVgo Network
189683	Macerich Flatiron Crossing (Broomfield, CO)	1 West Flatiron Crossing Dr	Broomfield	Electrify America
193809	GLENWOOD SPRING FAST CHARGER	100 Riverine Road	Glenwood Springs	ChargePoint Network
203340	BERTHOUD REC CPE250	1000 Berthoud Pkwy	Berthoud	ChargePoint Network
173990	RAMPART RANGE LONE TREE DCFC	10003 Commons St	Lone Tree	ChargePoint Network
46524	Larry H Miller Nissan - Arapahoe	10030 E Arapahoe Rd	Centennial	Non-Networked
46543	Valley Nissan	1005 Ken Pratt Blvd	Longmont	Non-Networked
192947	Kroger King Soopers 65 (Englewood, CO)	101 Englewood Pkwy	Englewood	Electrify America
164792	DINO WELCOME DINOSAUR 2	101 Stegosaurus Fwy	Dinosaur	ChargePoint Network
200746	GRAND LAKE DCFC 1	1023 Grand Ave	Grand Lake	ChargePoint Network
165780	BMW OF DENVER DC FAST 03	1030 S Colorado Blvd	Denver	ChargePoint Network
179805	BMW OF DENVER DC FAST 01	1040 S Colorado Blvd	Denver	ChargePoint Network
50066	City of Denver - Denver Performing Arts Center Garage	1055 13th St	Denver	Non-Networked
123453	City of Delta - Parking Lot	111 W 3rd St	Delta	EV Connect
143259	ECG EAGLE PNR DC 1	112 Fairgrounds Rd	Eagle	ChargePoint Network
217284	ANNEX SITE CLEAR CRK STN 1	1198 Argentine St	Georgetown	ChargePoint Network
198714	Jax Outdoor Gear	1200 N College Ave	Fort Collins	eVgo Network
204970	GRAND VAIL ST1 DC STATION 1	1300 Westhaven Dr	Vail	ChargePoint Network
198348	REI	1376 E Woodmen Rd	Colorado Springs	eVgo Network
198959	REI	1416 Platte St	Denver	eVgo Network
198982	Orchard Town Center	14697 Delaware St	Westminster	eVgo Network
86037	ALLIANCE CENTER FAST CHARGER 1	1536 Wynkoop St	Denver	ChargePoint Network
202675	MMVW CHARGER DC WALLBOX	1580 Auto Mall Loop	Colorado Springs	ChargePoint Network
189386	UNITED POWER KEENESBURG1	165 Market St	Keenesburg	ChargePoint Network
145184	FLASHGORDON1 DCFast HOG	16565 E 33rd Dr	Aurora	ChargePoint Network
198243	Whole Foods - Union Station	1701 Wewatta St	Denver	eVgo Network
192270	29th St. Mall Garage	1710 29th St	Boulder	eVgo Network
200950	Macerich Twenty Ninth Street Mall (Boulder, CO)	1805 29th Street #1118	Boulder	Electrify America
143184	AHDEV DCFast HOG	18425 W Colfax Ave	Golden	ChargePoint Network
164398	Walmart 3867 - Westminster, CO	200 W. 136th Ave	Westminster	Electrify America
125141	Yampa Valley Electric Association	2211 Elk River Rd	Steamboat Springs	Non-Networked
46522	Boulder Nissan	2285 28th St	Boulder	Non-Networked
63407	Larry H Miller Nissan - 104	2400 W 104th Ave	Denver	Non-Networked
173139	KUM & GO THORNTON DCFC1	250 E. 136th Ave.	Thornton	ChargePoint Network
218522	HION LIMON DC1	250Main St	Limon	ChargePoint Network

186161	Walmart 5370 (Longmont, CO)	2514 MAIN ST	Longmont	Electrify America
46545	Dave Solon Nissan	2525 W US Highway 50	Pueblo	Non-Networked
46537	Greeley Nissan	2625 35th Ave	Greeley	Non-Networked
196019	ODELLS AKRON YW LV3 ST1	276 E 1st St	Akron	ChargePoint Network
192469	Whole Foods Boulder (Pearl) A1	2905 Pearl St	Boulder	eVgo Network
198237	Walmart	3301 Tower Rd	Aurora	eVgo Network
202999	MARKLEY MOTOR 1 MARKLEY GM CP2	3325 S College Ave	Fort Collins	ChargePoint Network
164110	RWEPOA TOPAZ VILLAGE MARKET	34295 US-6	Edwards	ChargePoint Network
190099	Target T1769 (Superior, CO)	400 Marshall Road	Superior	Electrify America
61937	City of Longmont - Museum and Cultural Center	400 Quail Rd	Longmont	EV Connect
198723	Superior Marketplace	405 Center Dr	Superior	eVgo Network
198719	Fort Collins Museum of Discovery	408 Mason Ct	Fort Collins	eVgo Network
143148	THUNDER MTN H-D DCFast HOG	4250 Byrd Dr	Loveland	ChargePoint Network
198880	Greeley Commons	4711 29th St	Greeley	eVgo Network
64699	Eagle County	500 Broadway St	Eagle	Non-Networked
194917	Target T1326 (Castle Rock, CO)	5010 Founders Pkwy	Castle Rock	Electrify America
169944	TOWN OF FRASER LIONS PONDS	575 Zerex St	Fraser	ChargePoint Network
183096	PPHD DCFast HOG	5867 N Nevada Ave	Colorado Springs	ChargePoint Network
182045	JRM DEL NORTE FAST	595 Columbia Ave	Del Norte	ChargePoint Network
170200	Target T0147- Englewood, CO	6767 S. Clinton St.	Englewood	Electrify America
46528	Woodmen Nissan	6840 Vincent Dr	Colorado Springs	Non-Networked
118890	STOP N SAVE 723 HORIZON DC1	723 Horizon Dr	Grand Junction	ChargePoint Network
185123	Walmart 1045 (Lafayette, CO)	745 US HIGHWAY 287	Lafayette	Electrify America
190426	Walmart 3533 - Denver, CO	7800 Smith Rd.	Denver	Electrify America
207643	Transwest	7911 E 96th Ave	Henderson	Blink Network
184904	GYPsum SHOP&HOP #11	800 Highway 6	Gypsum	ChargePoint Network
211911	Park Meadows DCFC	8401 Park Meadows Center Dr	Lone Tree	Volta
198724	Jax Outdoor Gear	900 S US Highway 287	Lafayette	eVgo Network
170299	Westminster City Center (Westminster, CO)	9210-9440 North Sheridan Blvd	Westminster	Electrify America
198725	Jax Outdoor Gear	950 E Eisenhower Blvd	Loveland	eVgo Network
206973	UNITED POWER CVSC DCFC	9586 E I-25 Frontage Rd	Longmont	ChargePoint Network
169412	Walmart 1231 (Thornton, CO)	9901 GRANT ST	Thornton	Electrify America
191393	WCSA LEVEL 3 ESP250	USFS-391	Pagosa Springs	ChargePoint Network
194945	PURGATORY STATION 1	1 Skier Pl	Durango	ChargePoint Network
199132	CORE SEDALIA STATION 1	1092 Cedar Street	Bennett	ChargePoint Network
188004	SPRINGS UTIL CITY PARKING 02	130 S Nevada Ave	Colorado Springs	ChargePoint Network
165079	ES1 ES1	144A Co Rd 105	Salida	ChargePoint Network
169285	TOWN OF AVON BEAVERCREEK DC1	220 Beaver Creek Place	Avon	ChargePoint Network
191282	KUM & GO GRANDBY DC1	240 W Agate Ave	Granby	ChargePoint Network
193201	CITY OF DURANGO DURANGO DC 1	250 W 8th St	Durango	ChargePoint Network

204503	CONIFER CONIFER DC1	27175 Main St	Conifer	ChargePoint Network
189344	EMICH VW STATION 2	350 S Santa Fe Dr	Denver	ChargePoint Network
216412	7-ELEVEN PUEBLO 32990PUEBLO DC1	3522 N Elizabeth St	Pueblo	ChargePoint Network
165300	CENTENNIAL PARK CENTENIAL WEST	445 San Juan St	Pagosa Springs	ChargePoint Network
192875	HN21006 LAJU CO LA JUNTA DC2	5 Walmart Way	La Junta	ChargePoint Network
169399	MONTROSE EV 1 DC FAST #2	533 N 1st St	Montrose	ChargePoint Network
196303	HN21001 ALAM CO ALAMOSA DC1	610 State Ave	Alamosa	ChargePoint Network
190188	KUM & GO CRAIG DC2	700 E Victory Way	Craig	ChargePoint Network
169969	KUM & GO STEAMBOAT S DC1	80 Anglers Dr	Steamboat Springs	ChargePoint Network
169901	DC CORRIDOR FAIRPLAY DC1	901 Main St	Fairplay	ChargePoint Network
205918	CSG EV BOULDER DC1	1500 Pearl St	Boulder	ChargePoint Network
202423	7-ELEVEN, INC. 38351 CMRCE DC4	15200 E 120th Ave	Commerce City	ChargePoint Network
200448	VAIL PARKING VAIL DC1	395 E Lionshead Cir	Vail	ChargePoint Network
169428	DC CORRIDOR ESTES PARK DC1	500 Big Thompson Avenue	Estes Park	ChargePoint Network
196588	DC CORRIDOR WHEAT RIDGE DC1	5071 Kipling St	Wheat Ridge	ChargePoint Network
186032	KUM & GO RIFLE DC1	705 Taugenbaugh Blvd	Rifle	ChargePoint Network
221896	7-ELEVEN, INC. WESTMINSTER DC2	7382 Federal Blvd	Westminster	ChargePoint Network
193387	KUM & GO WELLINGTON DC1	8150 6th St	Wellington	ChargePoint Network
146646	Target T2029 - Glenwood Springs, CO	110 W. Meadows Dr.	Glenwood Springs	Electrify America
170335	Colorado Mills Mall	14500 W. Colfax Ave	Lakewood	Electrify America
121792	Walmart 962 - Trinidad, CO	2921 Toupal Drive	Trinidad	Electrify America
164512	Walmart 986 - Frisco, CO	840 Summit Blvd	Frisco	Electrify America
190445	Walmart 5033 Fort Morgan	1300 Barlow Rd	Fort Morgan	Electrify America
190450	I-70 Diner	17044 CR-5	Flagler	Electrify America
190763	Target T1178 (Loveland, CO)	1725 Rocky Mountain Ave	Loveland	Electrify America
123686	Sam's Club 6549 - Pueblo, CO	412 Eagleridge Blvd.	Pueblo	Electrify America
214278	East-West Resorts Edwards Station (Edwards, CO)	434 Edwards Access Rd	Edwards	Electrify America
121777	Sam's Club 8272 (Fountain, CO)	4385 Venetucci Blvd.	Fountain	Electrify America
99432	Mesa County Public Library	502 Ouray Ave	Grand Junction	Non-Networked
163730	GCEA EV STATION DCFC LAKE CITY	100 Bluff St	Lake City	ChargePoint Network
202869	Littleton Square	100 W Littleton Blvd	Littleton	eVgo Network
213944	Phil Long Kia	1020 Motor City Dr	Colorado Springs	EVGATEWAY
200747	GRAND LAKE DCFC 2	1028 Grand Ave	Grand Lake	ChargePoint Network
121770	Sam's Club 6360	1040 Independent Ave.	Grand Junction	Electrify America
214236	King Soopers Denver #123	10406 Martin Luther King Blvd	Denver	eVgo Network
164795	DINO WELCOME DINOSAUR 1	123 Brontosaurus Blvd	Dinosaur	ChargePoint Network
63364	Larry H Miller Nissan	1320 Plum Valley Ln	Highlands Ranch	Non-Networked
46526	South Colorado Springs Nissan	1333 S Academy Blvd	Colorado Springs	Non-Networked
213970	Phil Long mEV Outlet	1338 Motor City Dr	Colorado Springs	EVGATEWAY
121763	Walmart 5049 Littleton	13420 W. Coal Mine Ave.	Littleton	Electrify America

190423	Walmart 1492 - Aurora, CO	14000 Exposition Ave.	Aurora	Electrify America
201840	Kroger King Soopers 114 (Commerce City, CO)	15051 E 104th Ave	Commerce City	Electrify America
198990	Buckley Square	17000 E Iliff Ave	Aurora	eVgo Network
199191	Kroger King Soopers 126 (Parker, CO)	17761 COTTONWOOD DRIVE	Parker	Electrify America
206173	Evergreen 56th and Tower (Denver, CO)	18552 E 57th Ave	Denver	Electrify America
189650	Kroger King Soopers 129 (Erie, CO)	1891 State Hwy 7	Erie	Electrify America
152119	Target T2225	1985 Sheridan Blvd.	Edgewater	Electrify America
214648	Choice Market	2200 E Colfax Ave	Denver	Non-Networked
145240	Town of Paonia - Parking	236 Main Ave	Paonia	Non-Networked
218523	HION LIMON DC2	250 Main St	Limon	ChargePoint Network
183093	RMH-D DCFast HOG	2885 W County Line Rd	Littleton	ChargePoint Network
163729	GCEA EV STATION DCFC CB FIRE	306 Maroon Ave	Crested Butte	ChargePoint Network
186323	MINTURN SHOP&HOP #12	401 Main St	Minturn	ChargePoint Network
201074	CITY OF ASPEN CITY HALL	415 Rio Grande Pl	Aspen	ChargePoint Network
63180	City of Aspen - Rio Grande Parking Plaza	427 Rio Grande Pl	Aspen	Non-Networked
191771	Kroger King Soopers 124 (Glendale, CO)	4600 Leetsdale Rd	Glendale	Electrify America
145146	UNITED POWER COAL CREEK 1	5 Gross Dam Rd	Golden	ChargePoint Network
221291	CITY OF ASPEN S GALENA LEVEL3	501 S Galena St	Aspen	ChargePoint Network
193486	WREA MAIN ST LVL 3	504 Main Street	Meeker	ChargePoint Network
198981	REI	5375 S Wadsworth Blvd	Littleton	eVgo Network
190430	Walmart 1689 (Aurora, CO)	5650 S Chambers Rd	Aurora	Electrify America
190431	Walmart 5137 (Aurora, CO)	6101 SOUTH AURORA PARKWAY	Aurora	Electrify America
202060	Albertsons Denver #2714	6220 E 14th Ave	Denver	eVgo Network
199016	Lloyd King Center	6350 Sheridan Blvd	Arvada	eVgo Network
198720	Arapahoe Crossings	6564 S Parker Road	Aurora	eVgo Network
170313	Walmart 1252 (Highlands Ranch, CO)	6675 BUSINESS CENTER DR	HIGHLANDS RANCH	Electrify America
216615	Regency Cherrywood SC (Centennial, CO)	7575 S University Blvd	Centennial	Electrify America
73515	Pitkin County	76 Service Center Rd	Aspen	Non-Networked
198879	Northridge Shopping Center	7790 W 80th Ave	Arvada	eVgo Network
46520	Tynan's Nissan	780 S Havana St	Aurora	Non-Networked
198643	Ideal Market Capitol Hill	900 E 11th Ave	Denver	eVgo Network
198006	National Park Village	900 Moraine Ave	Estes Park	EV Connect
164818	CHARGESTATION1 CHAMBER1	904 S Main St	Creede	ChargePoint Network
121684	SDCEA SOUTH MAIN L3	912 South Main Street	Buena Vista	ChargePoint Network
170315	Walmart 4734 (Arvada, CO)	9400 RALSTON ROAD	Arvada	Electrify America
198931	Monaco Square	942 S Monaco Pkwy	Denver	eVgo Network
156482	COWEN DRIVE DC 1	944 Cowen Dr	Carbondale	ChargePoint Network
198722	Highlands Ranch Shopping Center	9579 S University Blvd	Highlands Ranch	eVgo Network
143406	HCE BASALT 1	99 Midland Spur	Basalt	ChargePoint Network

205619	3RD STREET FAST 3RD STREET FAST	Harrison & 3rd	Leadville	ChargePoint Network
164793	ECG AIRPORT DC 1	216 Eldon Wilson Rd	Gypsum	ChargePoint Network
213902	CHARGEPOINT#1 E-470 EAST	22470 E Stephen D. Hogan Parkway	Aurora	ChargePoint Network
197930	CORE SEDALIA MEMBER SED2	5496 US-85	Sedalia	ChargePoint Network
217285	ANNEX SITE CLEAR CRK STN 2	1120 Argentine St	Georgetown	ChargePoint Network

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Appendix B: Future Stakeholder Engagement Priorities

Name of Organization	Category	Description
Colorado Association of School District Energy Managers	Advocacy	Organization promoting energy management and resource conservation in schools and throughout the state of Colorado by sharing best practices, engaging in cooperative efforts, building partnerships and skills, and learning about cutting-edge products, technologies, services, and offerings
Colorado East Community Action Agency (CECAA)	Advocacy	Organization serving low-income, disabled and senior residents of Cheyenne, Elbert, Kit Carson, and Lincoln counties in rural eastern Colorado with a holistic approach to self-sufficiency.
Colorado Health Foundation	Advocacy	Foundation working with individuals and organizations to advocate for health equity.
Colorado Latino Forum	Advocacy	Works to increase the political, social, educational and economic strength of Latinas and Latinos. Current initiatives include supporting climate justice.
Community Foundation of Northern Colorado	Advocacy	Foundation that manages and administers over 500 charitable funds and more than \$185 million in assets (June 2021). Serves Berthoud, Estes Valley, Loveland, Eastern Colorado, Fort Collins.
Denver Regional Mobility Access Council (DRMAC)	Advocacy	Educational workshops and training to ensure various groups have access to mobility options. Workshops and training target disability etiquette for transportation providers, transportation options for human services providers, ADA coordinator training, transit advocacy, and others.

Electric Vehicles Four Corners	Advocacy	Public interest group that has hosted local information meetings and events (on how to use regenerative braking, types of chargers, installing residential EVSE, extending car battery life, engaging with businesses to install EVSE, and others)
Energy Outreach Colorado	Advocacy	Nonprofit provides bill payment assistance, heating system repair/replacement, energy education, weatherization, and other services. Partners with the State of Colorado on the Low-Income Energy Assistance Program and others.
First Nations Development Institute	Advocacy	First Nations Development Institute improves economic conditions for Native Americans through direct financial grants, technical assistance & training, and advocacy & policy.
Globeville, Elyria-Swansea Coalition for Health & Housing Justice	Advocacy	Group of neighborhood leaders and community organizations working to advocate for resident-driven leadership, protect historically marginalized neighborhoods, preserve affordability in housing, and promote neighborhood culture.
GoEV Cities & Counties	Advocacy	Coalition led with support from CLEER, Conservation Colorado, CoPIRG, Sierra Club, and SWEEP. Resources include a policy toolkit and the GoEV Resolution (pledge to develop an EV Action Plan with the goals and implementation strategies required to transition the local transportation sector to zero-emission vehicles).
Housing Colorado	Advocacy	Statewide membership organization committed to providing advocacy, professional development and issue expertise for the affordable housing community.
Keystone Policy Center	Advocacy	Nonprofit whose mission is to empower leaders to overcome national and local policy conflicts. Focuses on identifying solutions in energy, environment, education, health,

		agriculture, emerging genetic technologies, land management, and tribal communities.
Latino Community Foundation of Colorado	Advocacy	State-based philanthropic organization led by Latinos and for Latinos. Pursues civic, economic, and cultural opportunities.
Northeast Transportation Connections (NETC)	Advocacy	Nonprofit focusing on transportation demand management (including advocacy and providing mobility options). Focuses on building sustainability at a neighborhood level. Highlights opportunities to reduce the number of single-occupant cars and trucks on the road.
Qualified Listeners	Advocacy	Veteran & Family Resource hub, providing a variety of services and connections to Veterans and their families. Volunteer-led organization focusing on helping Veterans and their families.
Sierra Club Colorado	Advocacy	Environmental organization dedicated to climate solutions, conservation, and movement building. Sierra Club - Denver participated in Denver EV Action Plan.
Southern Colorado Council of Governments (SCCOG)	Advocacy	Community organization providing services to Huerfano and Las Animas Counties.
Southern Colorado Economic Development District (SCEDD)	Advocacy	Non-profit organization funded to support the economic development efforts of thirteen counties in southern Colorado including Baca, Bent, Chaffee, Crowley, Custer, Fremont, Huerfano, Kiowa, Lake, Las Animas, Otero, Pueblo, and Prowers Counties.
Western Colorado Alliance for Community Action	Advocacy	Organization dedicated to community action focused on Colorado's Western Slope.
Western Colorado EV Club	Advocacy	Fan club and advocacy group for electric vehicles and their owners in Western Colorado.

Wilderness Workshop	Advocacy	Nonprofit working to keep the White River National Forest and nearby Bureau of Land Management (BLM) lands 'as is'.
Clean Cities Coalition Network	Advocacy	Part of the U.S. Department of Energy's (DOE) Vehicle Technologies Office (VTO). Aims to support the nation's economic, environmental, and energy security by working locally to advance affordable, domestic transportation fuels, energy efficient mobility systems, and other fuel-saving technologies and practices.
Denver Public Library (DPL)	Education	Public library system of the City and County of Denver.
Denver Public Schools (DPS)	Education	Public school system in the City and County of Denver.
Denver Regional Council of Governments (DRCOG)	Local government	The Metropolitan Planning Organization (MPO) for the Denver region.
Pikes Peak Area Council of Governments (PPACG)	Local government	The Metropolitan Planning Organization (MPO) for Colorado Springs and surrounding communities. Programs include: the Area Agency on Aging, Transportation Planning, Military Impact Planning, Environmental Planning, and the Sustainability Program.
Regional Transportation District (RTD)	Local government	Transit agency serving eight of the 12 counties in the Denver-Aurora-Boulder Combined Statistical Area in Colorado.
Summit County, Colorado	Local government	County government located in Summit County. Recognized as a GoEV County.
The Northeastern Colorado Association of Local Governments (NECALG)	Local government	Voluntary association of county and municipal governments from Logan, Morgan, Phillips, Sedgwick, Washington, and Yuma Counties.

<p>Colorado Rural Electric Association (CREA)</p>	<p>Trade association</p>	<p>Trade association for Colorado's 22 electric cooperatives and its one generation and transmission cooperative. It provides legislative services, education classes, communications resources including Colorado Country Life magazine and safety and loss control assistance.</p>
<p>Energy Efficiency Business Coalition (EEBC)</p>	<p>Trade association</p>	<p>Trade association of non-utility companies that provide energy efficiency, demand response, and data analytics products and services in Colorado.</p>
<p>Southern Ute Tribe</p>	<p>Tribal government</p>	<p>Tribal council responsible for cultural preservation, transportation, education, natural resource protection, health, housing, planning, services, and others for the Southern Ute Indian Tribe. Located in La Plata County, Archuleta County, and Montezuma Counties in Colorado.</p>
<p>Ute Mountain Ute Tribe</p>	<p>Tribal government</p>	<p>Tribal council responsible for government services that include cultural preservation, transportation, education, natural resource protection, health, housing, planning, and other services for the Weeminuche band of the Ute Nation of Indians. Located in the Four Corners region of the United States in Montezuma County (CO), La Plata County (CO), and San Juan County (NM).</p>