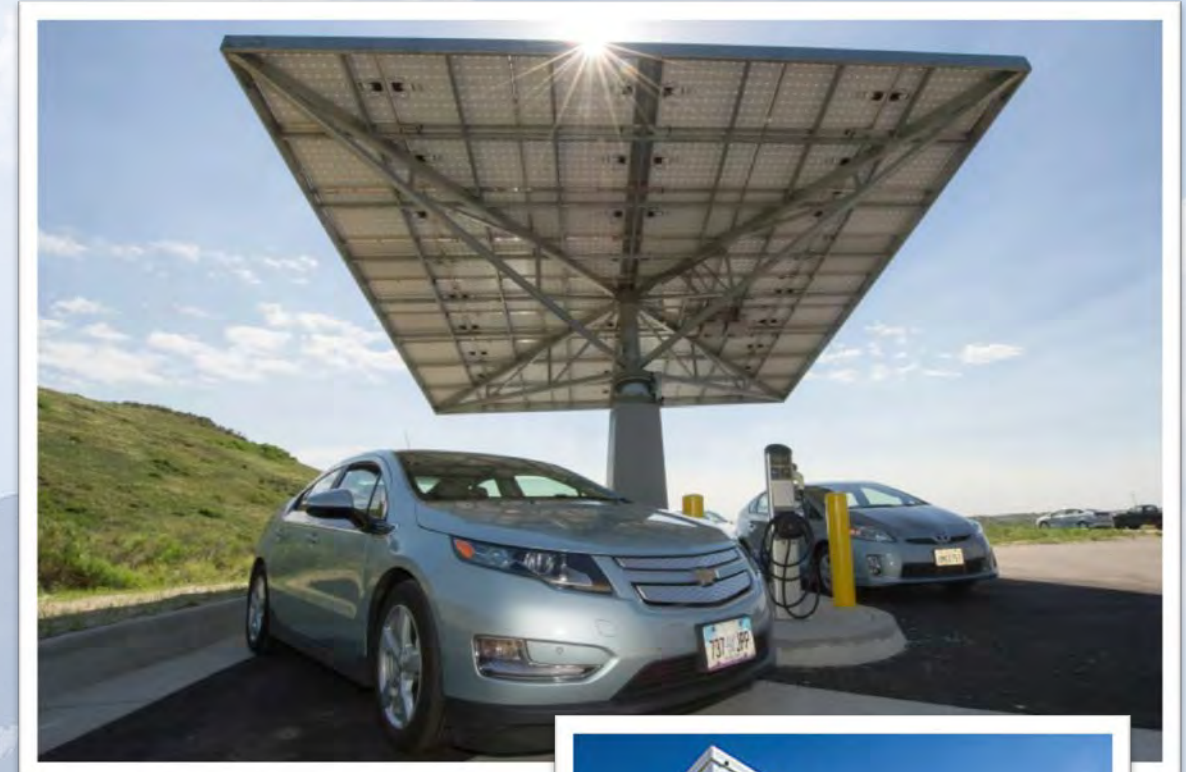


# CDOT NOMINATIONS FOR FAST ACT DESIGNATION OF ALTERNATIVE FUEL CORRIDORS IN COLORADO



**COLORADO**  
Department of  
Transportation

Colorado Department of Transportation (CDOT)  
Fixing America's Surface Transportation Act — Designation of Alternative Fuel Corridors  
FHWA-2016-0017





# CDOT NOMINATIONS FOR FAST ACT DESIGNATION OF ALTERNATIVE FUEL CORRIDORS IN COLORADO



## Nominations Jointly Submitted by:

Colorado Department of Transportation (CDOT), Statewide Transportation Advisory Committee (STAC), Colorado Energy Office (CEO), Regional Air Quality Council (RAQC). For propane corridor nominations, please see the attached Letters of Support.

## Statewide Network Plan:

Colorado is focused on developing a convenient and sustainable alternative fuels market (for electric, compressed natural gas (CNG), hydrogen, and propane fuels) that provides flexible statewide travel as well as meaningful connections to neighboring states and the broader national transportation network.

## Stakeholders & Partnerships:

Colorado has been working for several years to develop strong alternative fuel partnerships between state agencies, local communities, and private investors that have allowed the Charge Ahead Colorado and Alt Fuels Colorado programs to successfully establish many new alternative fueling locations throughout the state. CDOT will continue to provide outreach, education, and technical assistance while building new partnerships to expand the network and the market going forward.

## Statewide Goals:

*Short-Term* – Electric vehicle (EV) as 3% of new passenger vehicle sales and CNG as 5% of new medium/heavy duty vehicle sales by 2020.

*Long-Term* - Establish a sustainable statewide alternative fuels network and market for Colorado by 2040.

## Benefits for Disadvantaged Communities:

Disadvantaged groups and communities within Colorado will benefit from the designation and development of alternative fuel corridors in several ways:

*Air Quality* - Alternative fuel vehicles produce fewer harmful emissions while traveling along highways that are disproportionately located in environmental justice zones.

*Redevelopment* – Alternative fueling stations built in disadvantaged communities could potentially redevelop existing blighted locations, which would be an overall benefit to disadvantaged communities.

*Transit Support* – In smaller communities, fueling stations could also serve as lower-cost fuel providers for transit vehicles, thereby allowing for increased investment in service improvements for disadvantage communities.

*Local Government and Developer Incentives* - Housing developers of low-income multi-unit dwellings in disadvantaged communities could potentially receive a rebate or tax credit for installing alt fuel stations in low-income housing developments.

*Employment* - The construction and operation of new alternative fuel stations will increase both temporary and long-term improvement in the immediate vicinity of the new locations.

## Visibility, Convenience, and Accessibility to Corridor Users:

CDOT is working with new CNG station owners to place highway signage indicating the location of their stations, and will provide similar support for EV, hydrogen, and propane facilities as appropriate.

## Tailpipe Emissions Reduction:

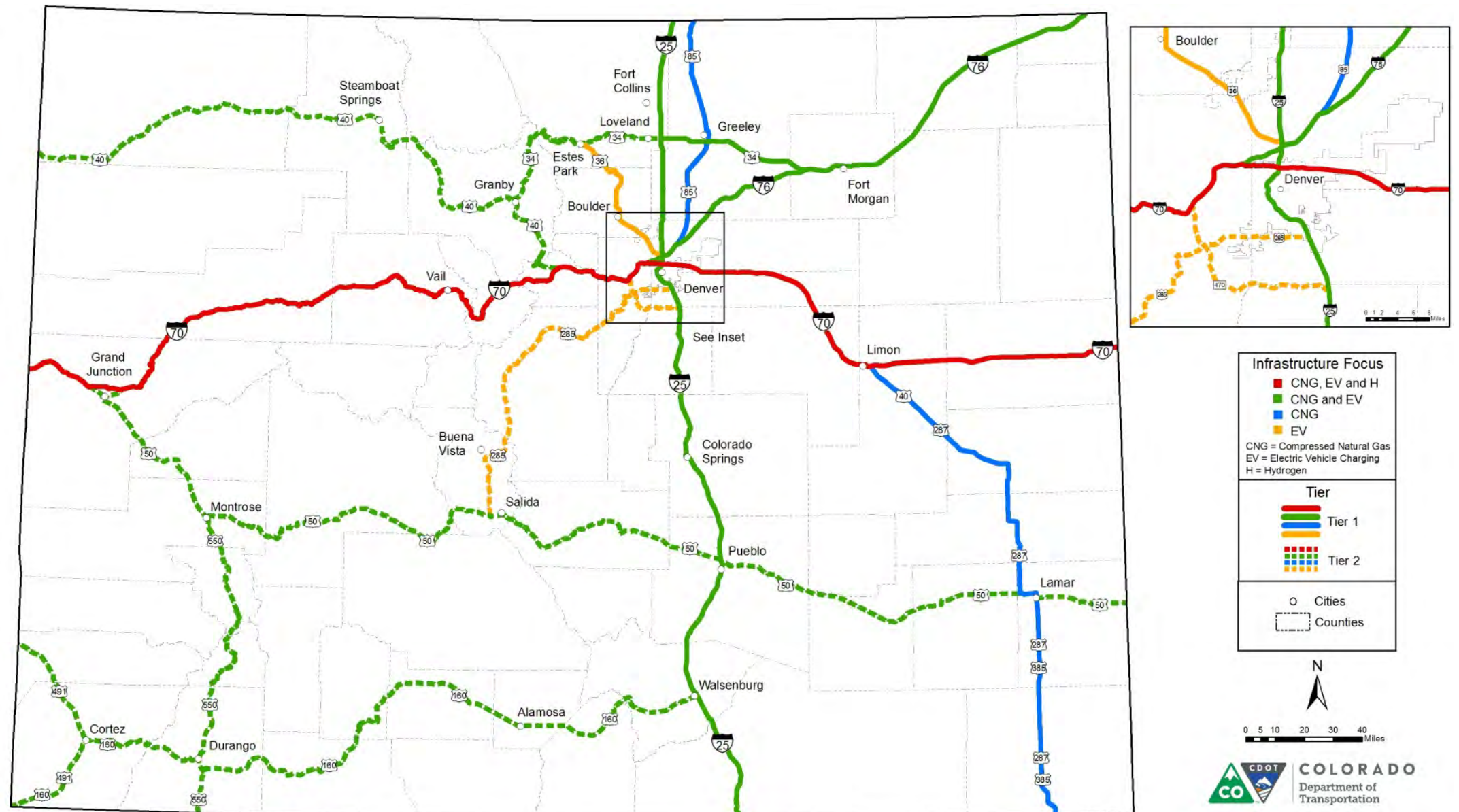
Emissions reductions are on a per vehicle basis. Tailpipe emissions reductions for each fuel type are outlined below.

EV	CNG	Hydrogen
NOx: 100%	NOx: 50%	NOx: 100%
VOC: 100%	VOC: 3%	VOC: 100%
CO <sub>2</sub> : 100%	CO <sub>2</sub> : 8%	CO <sub>2</sub> : 100%

## Distance between Existing and Planned Facilities

In general, future EV stations would be installed approximately every 30 miles. Future CNG and hydrogen stations (where applicable) would be installed approximately every 50 miles in most cases. Additional stations were also identified between these distances to address anticipated demand where warranted.

The following pages depict our approach in a more detailed, per-corridor basis.







# I-70: UTAH STATE LINE TO KANSAS STATE LINE (Tier 1)

I-70 is one of Colorado's longest and busiest transportation corridors, and connects the diverse communities of the Front Range, Mountain Corridor, and Western Slope while serving as a crucial east-west link between the midwestern and western regions of the United States. As a major commuter, freight, and recreational corridor, I-70 presents numerous opportunities for the development of EV, CNG, and hydrogen infrastructure over both the short- and long-term. Colorado has already begun this work through the funding of new CNG stations in Commerce City, Rifle, and Glenwood Springs, and will continue its partnerships with local communities and other state agencies to advance a sustainable alternative fueling network for Colorado and the entire country.

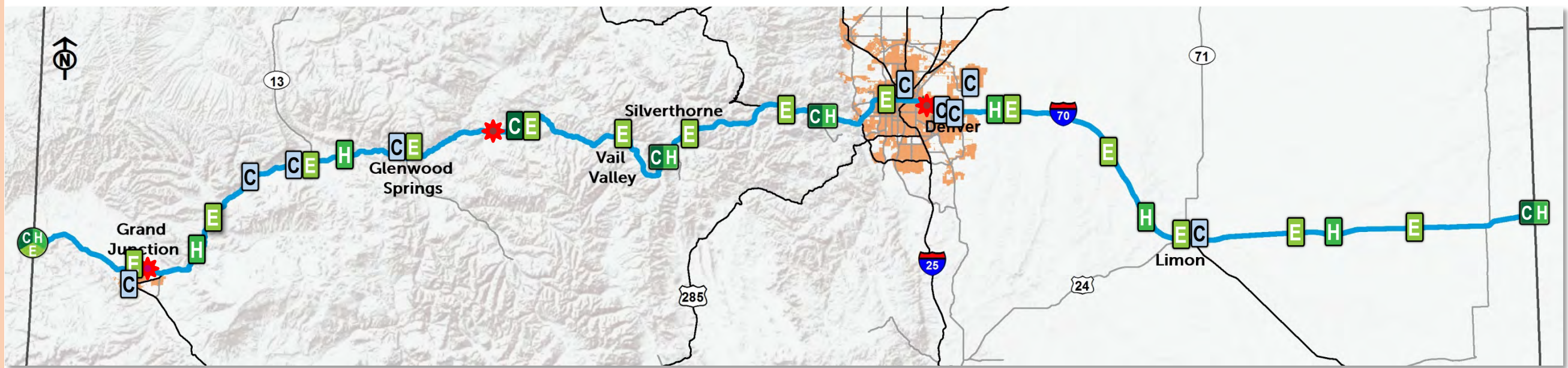
<b>Vehicle Use (VMT)</b> 🚗🚗🚗🚗 : 🚛	<b>Length (Miles)</b> 450	<b>Infrastructure Focus</b> CNG/EV/Hydro	<b>Population (2010)</b> 1,388,740	<b>Employment</b> 766,823	<b>Median Rural Income</b> \$53,764	<b>Median Urban Income</b> \$53,125
<b>Current Daily VMT</b> 11,915,169	<b>2020 Daily VMT</b> 12,874,998	<b>2040 Daily VMT</b> 16,701,169	<b>Current Truck VMT</b> 1,498,376	<b>2020 Truck VMT</b> 1,615,320	<b>2040 Truck VMT</b> 2,081,494	<b>National Network Connectivity</b> Kansas, Utah, I-25, I-76
<b>Tailpipe Emission Reduction EV</b>		<b>Tailpipe Emission Reduction CNG</b>		<b>Tailpipe Emission Reduction Hydro</b>		<b>Investment Need</b>
⚡ NO <sub>x</sub> 100%	⚡ VOC 100%	⚡ CO <sub>2</sub> 100%	🔥 NO <sub>x</sub> 50%	🔥 VOC 3%	🔥 CO <sub>2</sub> 8%	💧 NO <sub>x</sub> 100%
💧 VOC 100%	💧 CO <sub>2</sub> 100%	⚡ EV \$4,500,000	💧 VOC 100%	⚡ CNG \$10,000,000	💧 CO <sub>2</sub> 100%	💧 Hydrogen \$36,000,000
						<input checked="" type="checkbox"/> Connects to major metro area <input checked="" type="checkbox"/> Connects to two adjacent states <input checked="" type="checkbox"/> Connects to major intermodal facilities

**Major Metropolitan Areas**  
Denver, Silverthorn, Vail Valley, Glenwood Springs, Grand Junction

**Past Successes and Partnerships**  
To date 3 new CNG stations (Commerce City, Rifle, and Glenwood Springs) have been funded along this corridor through the Alt Fuels Colorado partnership between the Colorado Department of Transportation (CDOT), the Colorado Energy Office (CEO), and the Regional Air Quality Council (RAQC).



## Existing and Planned Alternative Fuel Facilities



<b>EXISTING</b>	<b>PROPOSED</b>	
CNG	CNG	CNG, Hydro, EV
Total CNG: 9	EV	Total CNG: 5
	Hydro	Total EV: 15
		Total Hydro: 9

Future EV stations every 30 miles; future CNG and hydrogen stations every 50 miles. Additional future stations where warranted.  
 NHS and Proposed Alternative Fuels Highways   
 NHS Highways Only   
 Intermodal connection

### Short-term Strategic Goals (2020)

Statewide: EV as 3% of new passenger vehicle sales and CNG as 5% of new medium / heavy duty vehicle sales by 2020.  
 Within Mesa County: By 2020, Grand Valley Transit will establish a 100% CNG bus fleet and the City of Grand Junction will convert 275 municipal vehicles to CNG.  
 Within Weld County: 7-10 CNG stations, 1 liquefied natural gas (LNG) station, and 1,000 CNG vehicle conversions.

### Long-term Strategic Goals (2040)

Statewide: Establish a sustainable statewide alternative fuels network and market for Colorado.  
 Within Weld County: 15-25 CNG stations, 3 LNG stations, and 10,000 CNG vehicle conversions.



# I-25: WYOMING STATE LINE TO NEW MEXICO STATE LINE (Tier 1)

I-25 serves as the transportation backbone of Colorado's fast-growing Front Range region, connecting major population centers in Denver, Colorado Springs, Fort Collins, Pueblo, Aurora, Loveland, and Greeley. It also provides north-south connectivity throughout the Mountain West region of the United States via links to I-80 in Wyoming and I-40 in New Mexico. As a major commuter, freight, and recreational corridor, I-25 presents strong opportunities for the development of EV and CNG infrastructure over both the short- and long-term. Colorado has already made significant progress on this work through the funding of new CNG stations in Fort Collins, Loveland, Commerce City, Colorado Springs, Pueblo, and Trinidad and will continue its partnerships with local communities and other state agencies to advance a sustainable alternative fueling network for Colorado and the entire country.

<b>Vehicle Use (VMT)</b> :	<b>Length (Miles)</b> <b>299</b>	<b>Infrastructure Focus</b> <b>CNG/EV</b>
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<b>Population (2013)</b> 2,686,609	<b>Employment</b> 1,469,543	<b>Median Rural Income</b> \$57,639	<b>Median Urban Income</b> \$55,773
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<b>Current Daily VMT</b> 19,514,640	<b>2020 Daily VMT</b> 21,857,933	<b>2040 Daily VMT</b> 31,211,066
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<b>Current Truck VMT</b> 1,723,835	<b>2020 Truck VMT</b> 1,927,465	<b>2040 Truck VMT</b> 2,740,203
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## National Network Connectivity Wyoming, New Mexico, I-70, I-76

<input checked="" type="checkbox"/> Connects to major metro area <input checked="" type="checkbox"/> Connects to two adjacent states <input checked="" type="checkbox"/> Connects to major intermodal facilities	<b>Investment Need</b> 	<b>EV</b> \$3,000,000 <b>CNG</b> \$8,000,000
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## Major Metropolitan Areas Denver, Colorado Springs, Fort Collins, Pueblo, Loveland, Greeley

<b>Tailpipe Emission Reduction EV</b> 	<b>Tailpipe Emission Reduction CNG</b> 	<b>Tailpipe Emission Reduction Hydro</b> 
NO <sub>x</sub> 100% VOC 100% CO <sub>2</sub> 100%	NO <sub>x</sub> 50% VOC 3% CO <sub>2</sub> 8%	NO <sub>x</sub> 0% VOC 0% CO <sub>2</sub> 0%

### Past Successes and Partnerships

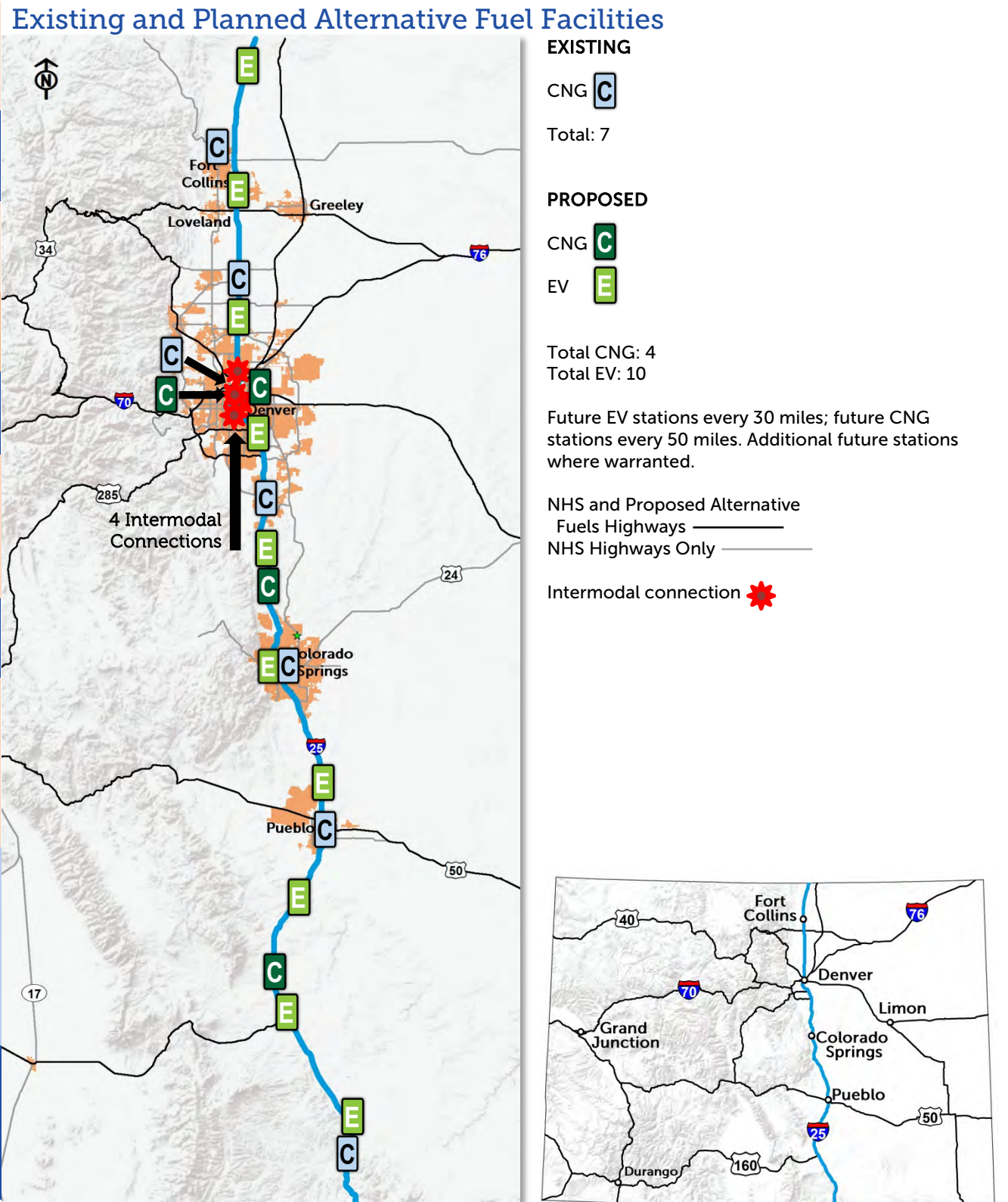
To date 6 new CNG stations (Fort Collins, Loveland, Commerce City, Colorado Springs, Pueblo, and Trinidad) have been funded along this corridor through the Alt Fuels Colorado partnership between the Colorado Department of Transportation (CDOT), the Colorado Energy Office (CEO), and the Regional Air Quality Council (RAQC).

### Short-term Strategic Goals (2020)

Statewide: EV as 3% of new passenger vehicle sales and CNG as 5% of new medium / heavy duty vehicle sales by 2020.

### Long-term Strategic Goals (2040)

Statewide: Establish a sustainable statewide alternative fuels network and market for Colorado.





# I-76: DENVER TO NEBRASKA STATE LINE (Tier 1)

I-76 is a critical east-west link between the Denver Metro, northeast area of Colorado, and Midwest region of the United States. It connects to the broader national interstate network via links to I-25 and I-70 in Colorado and I-80 in Nebraska while carrying both passenger and freight traffic and presenting opportunities for the development of EV and CNG infrastructure over both the short- and long-term. Colorado has already made progress on this work through the funding of a new CNG station in Fort Morgan and will continue its partnerships with local communities and other state agencies to advance a sustainable alternative fueling network for Colorado and the entire country.

<b>Vehicle Use (VMT)</b> :		<b>Length (Miles)</b> 184	<b>Infrastructure Focus</b> CNG/EV	<b>Population (2010)</b> 886,648	<b>Employment</b> 473,262	<b>Median Rural Income</b> \$52,118	<b>Median Urban Income</b> \$53,016																		
<b>Current Daily VMT</b> 3,147,455	<b>2020 Daily VMT</b> 3,633,710	<b>2040 Daily VMT</b> 5,575,403	<b>Current Truck VMT</b> 564,569	<b>2020 Truck VMT</b> 646,140	<b>2040 Truck VMT</b> 971,807	<b>National Network Connectivity</b> Nebraska, I-70, I-25																			
<b>Tailpipe Emission Reduction EV</b> <table border="1"> <tr><td>NO<sub>x</sub></td><td>100%</td></tr> <tr><td>VOC</td><td>100%</td></tr> <tr><td>CO<sub>2</sub></td><td>100%</td></tr> </table>		NO <sub>x</sub>	100%	VOC	100%	CO <sub>2</sub>	100%	<b>Tailpipe Emission Reduction CNG</b> <table border="1"> <tr><td>NO<sub>x</sub></td><td>50%</td></tr> <tr><td>VOC</td><td>3%</td></tr> <tr><td>CO<sub>2</sub></td><td>8%</td></tr> </table>		NO <sub>x</sub>	50%	VOC	3%	CO <sub>2</sub>	8%	<b>Tailpipe Emission Reduction Hydro</b> <table border="1"> <tr><td>NO<sub>x</sub></td><td>0%</td></tr> <tr><td>VOC</td><td>0%</td></tr> <tr><td>CO<sub>2</sub></td><td>0%</td></tr> </table>		NO <sub>x</sub>	0%	VOC	0%	CO <sub>2</sub>	0%	<b>Investment Need</b> EV CNG \$2,100,000 \$2,000,000	<input checked="" type="checkbox"/> Connects to major metro area <input checked="" type="checkbox"/> Connects to one adjacent state <input checked="" type="checkbox"/> Connects to major intermodal facilities
NO <sub>x</sub>	100%																								
VOC	100%																								
CO <sub>2</sub>	100%																								
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VOC	3%																								
CO <sub>2</sub>	8%																								
NO <sub>x</sub>	0%																								
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CO <sub>2</sub>	0%																								

## Major Metropolitan Areas Denver

### Past Successes and Partnerships

To date 2 new CNG stations (Fort Morgan, Henderson) have been funded along this corridor through the Alt Fuels Colorado partnership between the Colorado Department of Transportation (CDOT), the Colorado Energy Office (CEO), and the Regional Air Quality Council (RAQC).



### Existing and Planned Alternative Fuel Facilities



#### EXISTING

CNG   
 Total: 3

#### PROPOSED

CNG   
 EV

Total CNG: 1  
Total EV: 7

Future EV stations every 30 miles; future CNG stations every 50 miles. Additional future stations where warranted.

NHS and Proposed Alternative Fuels Highways   
 NHS Highways Only

Intermodal connection

### Short-term Strategic Goals (2020)

Statewide: EV as 3% of new passenger vehicle sales and CNG as 5% of new medium / heavy duty vehicle sales by 2020.  
Within Weld County: 7-10 CNG stations, 1 LNG station, and 1,000 CNG vehicle conversions.

### Long-term Strategic Goals (2040)

Statewide: Establish a sustainable statewide alternative fuels network and market for Colorado.  
Within Weld County: 15-25 CNG stations, 3 LNG stations, and 10,000 CNG vehicle conversions.

# US 287: LIMON TO OKLAHOMA STATE LINE (Tier 1)

US 287 is a major north-south freight artery that serves as the central link in the nationally recognized 9-state Ports-to-Plains corridor between Texas and the US-Canadian border. It connects to the broader national interstate network through Oklahoma to I-40 in Texas while feeding into I-70, I-25, and I-76 in Colorado. As a freight-intensive corridor, US 287 presents great opportunities, particularly for CNG infrastructure development over both the short- and long-term. Colorado has already begun this work through the funding of a new CNG station in Limon and targeted outreach to Lamar, and will continue its partnerships with local communities and other state agencies to advance a sustainable alternative fueling network for Colorado and the entire country.

<b>Vehicle Use (VMT)</b> 	<b>Length (Miles)</b> <b>193</b>	<b>Infrastructure Focus</b> <b>CNG</b>
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<b>Population (2013)</b> <b>24,166</b>	<b>Employment</b> <b>10,964</b>	<b>Median Rural Income</b> <b>\$ 43,821</b>	<b>Median Urban Income</b> <b>\$ 38,875</b>
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<b>Current Daily VMT</b> <b>697,641</b>	<b>2020 Daily VMT</b> <b>788,610</b>	<b>2040 Daily VMT</b> <b>1,151,739</b>
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<b>Current Truck VMT</b> <b>304,666</b>	<b>2020 Truck VMT</b> <b>344,636</b>	<b>2040 Truck VMT</b> <b>504,202</b>
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## National Network Connectivity Oklahoma, I-70

<input checked="" type="checkbox"/> Connects to major metro area (Denver via I-70) <input checked="" type="checkbox"/> Connects to one adjacent state <input type="checkbox"/> Connects to major intermodal facilities	<b>Investment Need</b> <b>EV</b> \$0 <b>CNG</b> \$6,000,000 <b>Hydrogen</b> \$0
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## Major Metropolitan Areas Denver

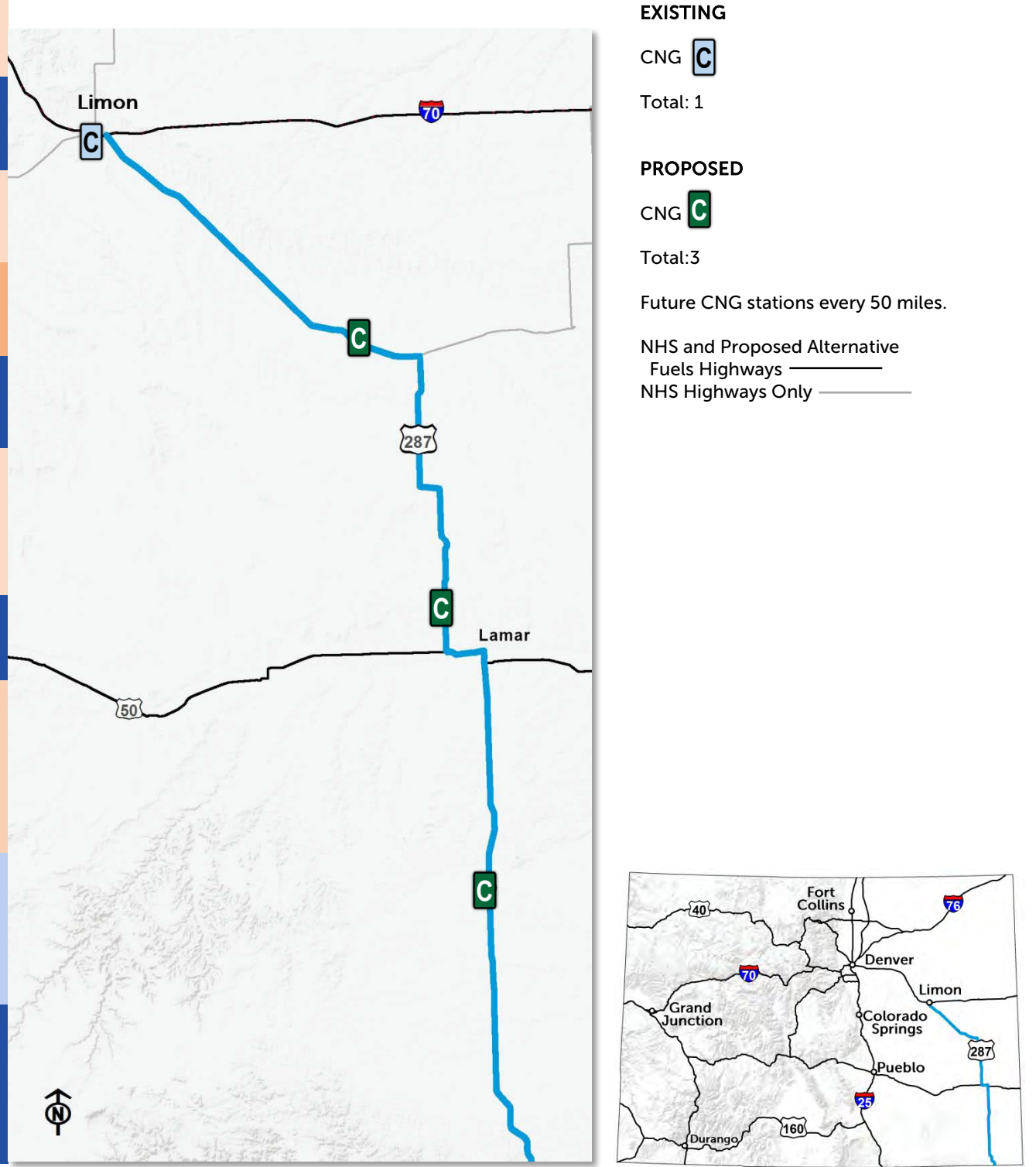
<b>Tailpipe Emission Reduction EV</b> <b>NO<sub>x</sub> 0%</b> <b>VOC 0%</b> <b>CO<sub>2</sub> 0%</b>	<b>Tailpipe Emission Reduction CNG</b> <b>NO<sub>x</sub> 50%</b> <b>VOC 3%</b> <b>CO<sub>2</sub> 8%</b>	<b>Tailpipe Emission Reduction Hydro</b> <b>NO<sub>x</sub> 0%</b> <b>VOC 0%</b> <b>CO<sub>2</sub> 0%</b>
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**Past Successes and Partnerships**  
 To date **1 new CNG station (Limon)** has been funded along this corridor through the Alt Fuels Colorado partnership between the Colorado Department of Transportation (CDOT), the Colorado Energy Office (CEO), and the Regional Air Quality Council (RAQC).

**Short-term Strategic Goals (2020)**  
 Statewide: EV as 3% of new passenger vehicle sales and CNG as 5% of new medium / heavy duty vehicle sales by 2020.

**Long-term Strategic Goals (2040)**  
 Statewide: Establish a sustainable statewide alternative fuels network and market for Colorado.

## Existing and Planned Alternative Fuel Facilities





# US 36: DENVER TO ESTES PARK (Tier 1)

US 36 is a compact high-traffic urban corridor connecting the major population and employment centers of Denver, Boulder, and Broomfield with the world class recreational destination of Rocky Mountain National Park. As such it presents a unique opportunity for intensive EV infrastructure development and carbon-neutral transportation to one of our nation's premier natural areas while also serving millions of visitors and commuters each year in a fast-growing area of the country. Colorado is working to develop partnerships with local communities and other state agencies to develop infrastructure along the US 36 corridor and connect with a broader sustainable alternative fueling network for Colorado and the entire country.

<b>Vehicle Use (VMT)</b> :  / 8	<b>Length (Miles)</b> <b>58</b>	<b>Infrastructure Focus</b> <b>EV</b>
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<b>Population (2013)</b> <b>785,179</b>	<b>Employment</b> <b>442,031</b>	<b>Median Rural Income</b> <b>\$ 80,652</b>	<b>Median Urban Income</b> <b>\$ 60,417</b>
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<b>Current Daily VMT</b> <b>2,305,224</b>	<b>2020 Daily VMT</b> <b>2,463,092</b>	<b>2040 Daily VMT</b> <b>3,092,269</b>
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<b>Current Truck VMT</b> <b>58,812</b>	<b>2020 Truck VMT</b> <b>62,844</b>	<b>2040 Truck VMT</b> <b>78,913</b>
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## National Network Connectivity

I-25

<input checked="" type="checkbox"/> Connects to major metro area <input type="checkbox"/> Connects to adjacent state(s) <input checked="" type="checkbox"/> Connects to major intermodal facilities	<b>Investment Need</b> <b>EV</b> <b>\$600,000</b> <b>CNG</b> <b>\$0</b> <b>Hydrogen</b> <b>\$0</b>
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## Major Metropolitan Areas

Denver, Boulder, Rocky Mountain National Park

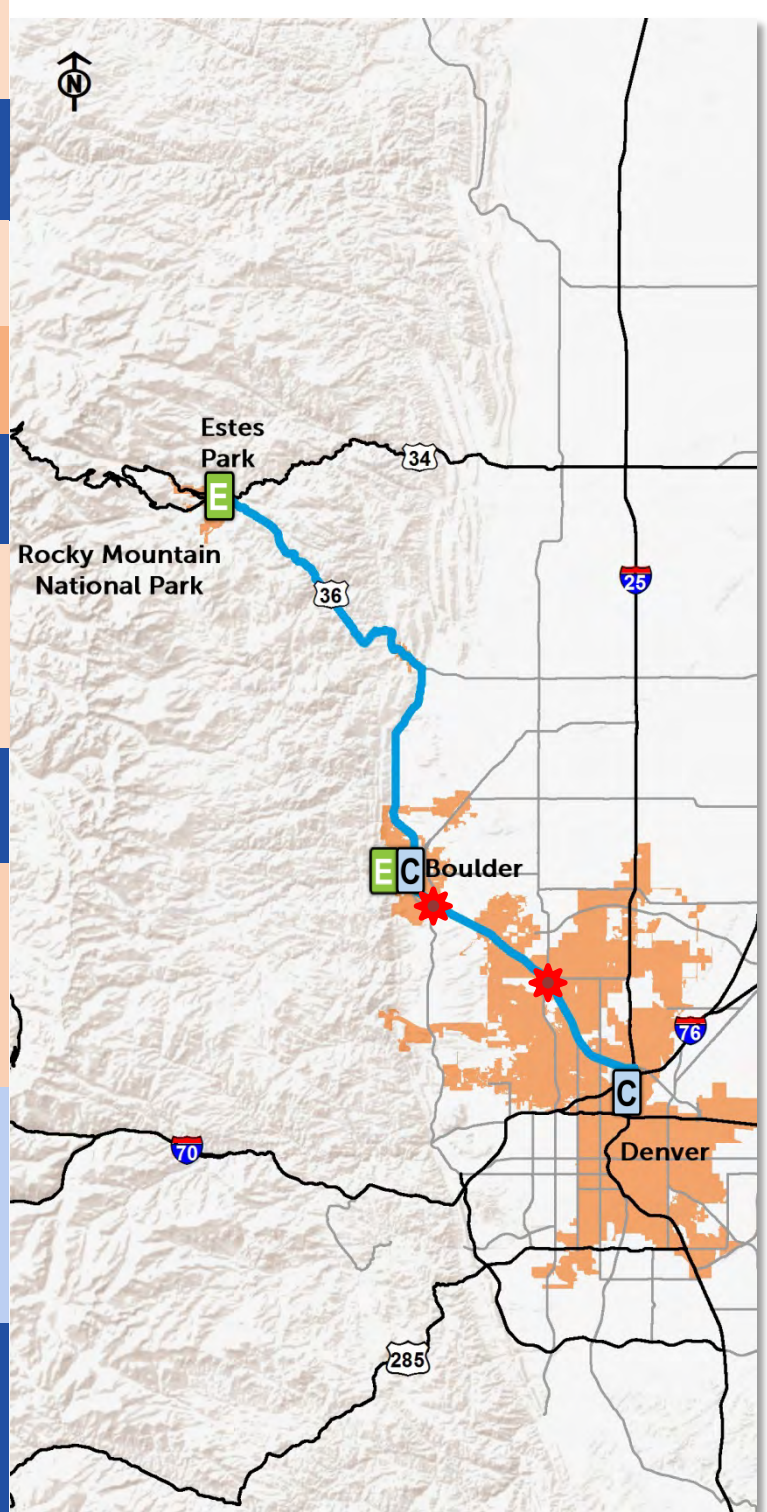
<b>Tailpipe Emission Reduction EV</b>  <b>NO<sub>x</sub> 100%</b> <b>VOC 100%</b> <b>CO<sub>2</sub> 100%</b>	<b>Tailpipe Emission Reduction CNG</b>  <b>0%</b> <b>0%</b> <b>0%</b>	<b>Tailpipe Emission Reduction Hydro</b>  <b>NO<sub>x</sub> 0%</b> <b>VOC 0%</b> <b>CO<sub>2</sub> 0%</b>
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**Past Successes and Partnerships**  
 This corridor includes no funded CNG stations or EV chargers at this time.

**Short-term Strategic Goals (2020)**  
 Statewide: EV as 3% of new passenger vehicle sales and CNG as 5% of new medium / heavy duty vehicle sales by 2020.

**Long-term Strategic Goals (2040)**  
 Statewide: Establish a sustainable statewide alternative fuels network and market for Colorado.

## Existing and Planned Alternative Fuel Facilities



- EXISTING**
- CNG **C**
  - Total: 2
- PROPOSED**
- EV **E**
  - Total EV: 2
  - Future EV stations as warranted.
- NHS and Proposed Alternative Fuels Highways NHS Highways Only
- Intermodal connection





# US 85: DENVER TO WYOMING STATE LINE (Tier 1)

US 85 is an important north-south Front Range corridor connecting the Denver Metro to population and economic centers in Greeley and Cheyenne, Wyoming. It presents opportunities for CNG infrastructure development that Colorado has already pursued through the funding of new stations in Henderson, Greeley, and Eaton. Colorado will continue its partnerships with local communities and other state agencies to advance a sustainable alternative fueling network for Colorado and the entire country.

<b>Vehicle Use (VMT)</b> 		<b>Length (Miles)</b> <b>82</b>	<b>Infrastructure Focus</b> <b>CNG</b>
<b>Population (2013)</b> <b>442,055</b>	<b>Employment</b> <b>226,823</b>	<b>Median Rural Income</b> <b>\$59,167</b>	<b>Median Urban Income</b> <b>\$55,322</b>
<b>Current Daily VMT</b> <b>1,254,361</b>	<b>2020 Daily VMT</b> <b>1,383,704</b>	<b>2040 Daily VMT</b> <b>1,899,492</b>	
<b>Current Truck VMT</b> <b>131,352</b>	<b>2020 Truck VMT</b> <b>145,049</b>	<b>2040 Truck VMT</b> <b>199,675</b>	
<b>National Network Connectivity</b> <b>Wyoming, I-76</b>			
<input checked="" type="checkbox"/> Connects to major metro area <input checked="" type="checkbox"/> Connects to one adjacent state <input type="checkbox"/> Connects to major intermodal facilities		<b>Investment Need</b> <b>EV</b> \$0 <b>CNG</b> \$2,000,000 <b>Hydrogen</b> \$0	
<b>Major Metropolitan Areas</b> <b>Denver, Greeley</b>			
<b>Tailpipe Emission Reduction</b> <b>EV</b> NO <sub>x</sub> 0% VOC 0% CO <sub>2</sub> 0%	<b>Tailpipe Emission Reduction</b> <b>CNG</b> NO <sub>x</sub> 50% VOC 3% CO <sub>2</sub> 8%	<b>Tailpipe Emission Reduction</b> <b>Hydro</b> NO <sub>x</sub> 0% VOC 0% CO <sub>2</sub> 0%	
<b>Past Successes and Partnerships</b> To date <b>3 new CNG stations (Henderson, Greeley, and Eaton)</b> have been funded along this corridor through the Alt Fuels Colorado partnership between the Colorado Department of Transportation (CDOT), the Colorado Energy Office (CEO), and the Regional Air Quality Council (RAQC).	<b>Short-term Strategic Goals (2020)</b> Statewide: EV as 3% of new passenger vehicle sales and CNG as 5% of new medium / heavy duty vehicle sales by 2020. Within Weld County: 7-10 CNG stations, 1 LNG station, and 1,000 CNG vehicle conversions.		
	<b>Long-term Strategic Goals (2040)</b> Statewide: Establish a sustainable statewide alternative fuels network and market for Colorado. Within Weld County: 15-25 CNG stations, 3 LNG stations, and 10,000 CNG vehicle conversions.		

### Existing and Planned Alternative Fuel Facilities

**EXISTING**  
 CNG Total: 5

**PROPOSED**  
 CNG Total: 1

Future CNG stations every 50 miles.

NHS and Proposed Alternative Fuels Highways NHS Highways Only



# US 34: LOVELAND TO I-76 (Tier 1)

US 34 between Loveland and I-76 is a rapidly growing passenger and freight corridor connecting major populations centers in northern Colorado to a broader statewide and interstate network. This region of the state is a hub of energy development, agriculture, and education and is expected to continue growing for future decades. As such, it provides opportunities for the development of both EV and CNG infrastructure. Colorado has already begun this work through the funding of new CNG stations in Loveland and Greeley and will continue its partnerships with local communities and other state agencies to advance a sustainable alternative fueling network for Colorado and the entire country.

<b>Vehicle Use (VMT)</b> 	<b>Length (Miles)</b> 57	<b>Infrastructure Focus</b> CNG/EV	<b>Population (2010)</b> 284,031	<b>Employment</b> 146,036	<b>Median Rural Income</b> \$52,118	<b>Median Urban Income</b> \$56,375
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<b>Current Daily VMT</b> 1,087,698	<b>2020 Daily VMT</b> 1,283,964	<b>2040 Daily VMT</b> 2,067,807	<b>Current Truck VMT</b> 74,939	<b>2020 Truck VMT</b> 87,632	<b>2040 Truck VMT</b> 138,340	<b>National Network Connectivity</b> I-25, I-76
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<b>Tailpipe Emission Reduction EV</b> NO <sub>x</sub> 100% VOC 100% CO <sub>2</sub> 100%	<b>Tailpipe Emission Reduction CNG</b> NO <sub>x</sub> 50% VOC 3% CO <sub>2</sub> 8%	<b>Tailpipe Emission Reduction Hydro</b> NO <sub>x</sub> 0% VOC 0% CO <sub>2</sub> 0%	<b>Investment Need</b> EV \$900,000 CNG \$0 Hydrogen \$0	<input checked="" type="checkbox"/> Connects to major metro area <input type="checkbox"/> Connects to adjacent state(s) <input type="checkbox"/> Connects to major intermodal facilities
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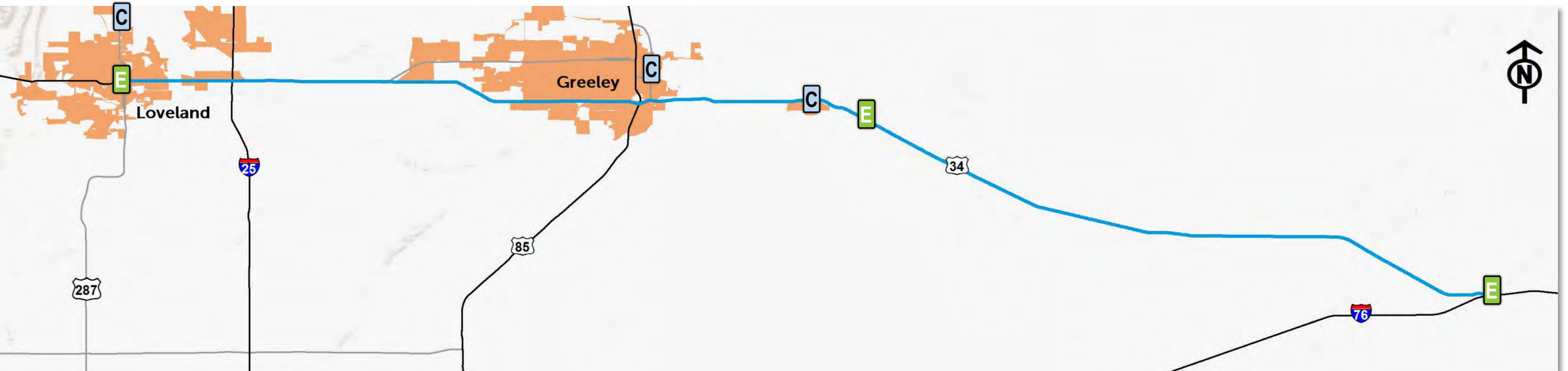
## Major Metropolitan Areas Loveland, Greeley

### Past Successes and Partnerships

To date 2 new CNG stations (Loveland, Greeley) have been funded along this corridor through the Alt Fuels Colorado partnership between the Colorado Department of Transportation (CDOT), the Colorado Energy Office (CEO), and the Regional Air Quality Council (RAQC).



### Existing and Planned Alternative Fuel Facilities



<b>EXISTING</b>	<b>PROPOSED</b>	
CNG	EV	Future EV stations every 30 miles; additional future stations where warranted.
Total CNG: 3	Total EV: 3	NHS and Proposed Alternative Fuels Highways
		NHS Highways Only

### Short-term Strategic Goals (2020)

Statewide: EV as 3% of new passenger vehicle sales and CNG as 5% of new medium / heavy duty vehicle sales by 2020.  
Within Weld County: 7-10 CNG stations, 1 LNG station, and 1,000 CNG vehicle conversions.

### Long-term Strategic Goals (2040)

Statewide: Establish a sustainable statewide alternative fuels network and market for Colorado.  
Within Weld County: 15-25 CNG stations, 3 LNG stations, and 10,000 CNG vehicle conversions.



# US 34: Loveland to US 40 (Tier 2)

US 34 between Loveland and US 40 is an urban-to-rural corridor that stretches from the fast-growing Front Range through Rocky Mountain National Park and on to the mountain communities of Estes Park, Grand Lake, and Granby. It provides a unique opportunity to integrate alternative fueling infrastructure with natural and recreational landscapes that also connect to the broader statewide infrastructure on I-25, I-70, US 36, and US 40. There is currently little to no alternative fueling infrastructure along this corridor, but Colorado will work to build partnerships with local communities and other state agencies to advance a sustainable alternative fueling network for Colorado and the entire country.

<b>Vehicle Use (VMT)</b> 🚗🚗🚗🚗🚗 : 1/8	<b>Length (Miles)</b> 92	<b>Infrastructure Focus</b> CNG/EV 🔥⚡	<b>Population (2010)</b> 133,613	<b>Employment</b> 71,904	<b>Median Rural Income</b> \$65,231	<b>Median Urban Income</b> \$60,000
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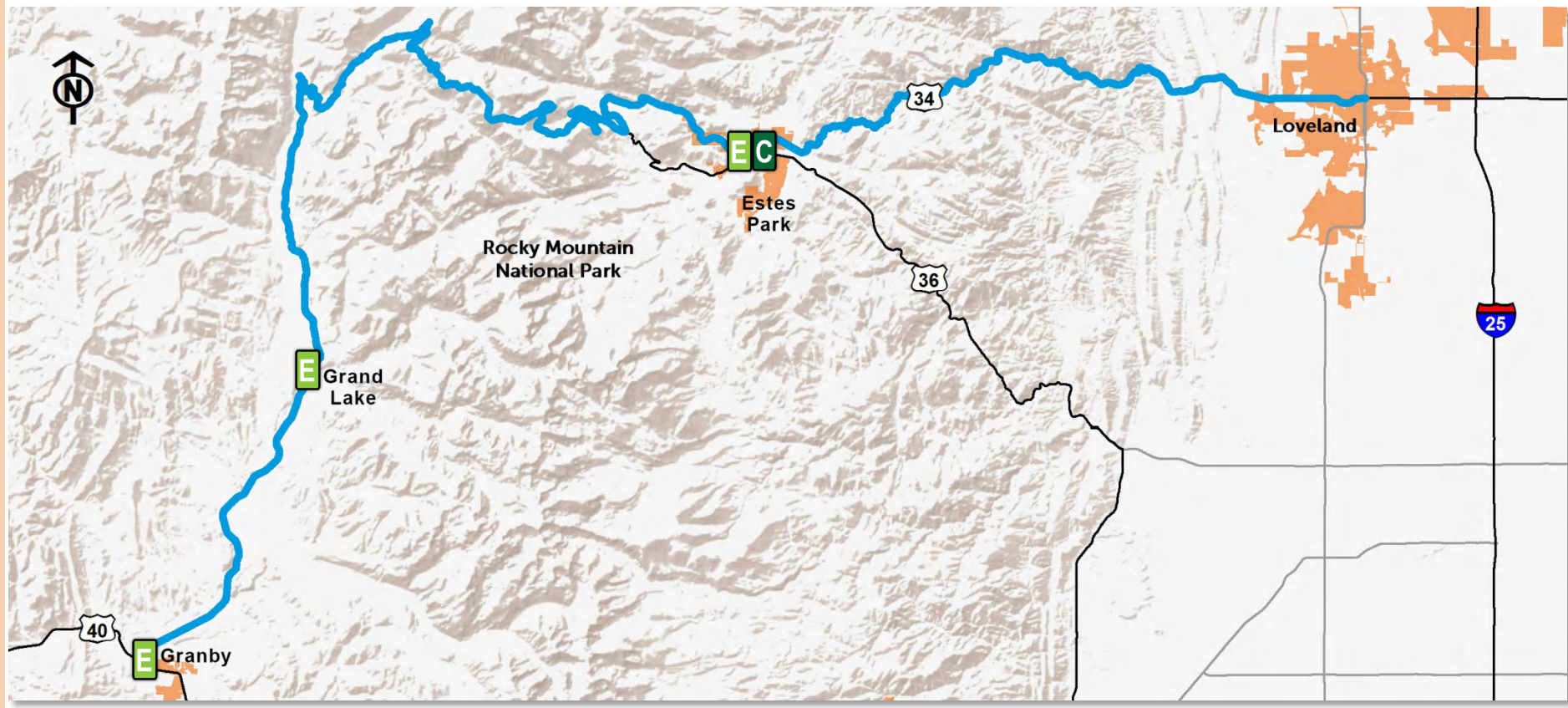
<b>Current Daily VMT</b> 521,592	<b>2020 Daily VMT</b> 569,432	<b>2040 Daily VMT</b> 760,012	<b>Current Truck VMT</b> 14,777	<b>2020 Truck VMT</b> 15,871	<b>2040 Truck VMT</b> 20,229	<b>National Network Connectivity</b> I-25
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<b>Tailpipe Emission Reduction EV</b> ⚡ NO <sub>x</sub> 100% VOC 100% CO <sub>2</sub> 100%	<b>Tailpipe Emission Reduction CNG</b> 🔥 NO <sub>x</sub> 50% VOC 3% CO <sub>2</sub> 8%	<b>Tailpipe Emission Reduction Hydro</b> 💧 NO <sub>x</sub> 0% VOC 0% CO <sub>2</sub> 0%	<b>Investment Need</b> ⚡ EV \$900,000 🔥 CNG \$2,000,000 💧 Hydrogen \$0	<input checked="" type="checkbox"/> Connects to major metro area <input type="checkbox"/> Connects to adjacent state(s) <input type="checkbox"/> Connects to major intermodal facilities
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**Major Metropolitan Areas**  
Loveland, Rocky Mountain NP

**Past Successes and Partnerships**  
This corridor includes no funded CNG stations or EV chargers at this time.

## Existing and Planned Alternative Fuel Facilities



**PROPOSED**  
 CNG **C**  
 EV **E**  
 Total CNG: 1  
 Total EV: 3  
 Future EV stations every 30 miles; future CNG stations where warranted.  
 NHS and Proposed Alternative Fuels Highways ———  
 NHS Highways Only ———



**Short-term Strategic Goals (2020)**  
Statewide: EV as 3% of new passenger vehicle sales and CNG as 5% of new medium / heavy duty vehicle sales by 2020.

**Long-term Strategic Goals (2040)**  
Statewide: Establish a sustainable statewide alternative fuels network and market for Colorado.



## C-470: I-70 TO I-25 (Tier 2)

C-470 is a busy corridor that serves as the southwestern portion of the partial beltway around the Denver metro area. As a high-population and predominantly passenger-oriented corridor, it presents an opportunity for the development of concentrated EV charging infrastructure in a growing urban context. There is currently no publicly accessible DC Fast Charging infrastructure along the corridor, but Colorado will work to build partnerships with local communities and other state agencies to advance a sustainable alternative fueling network for Colorado and the entire country.

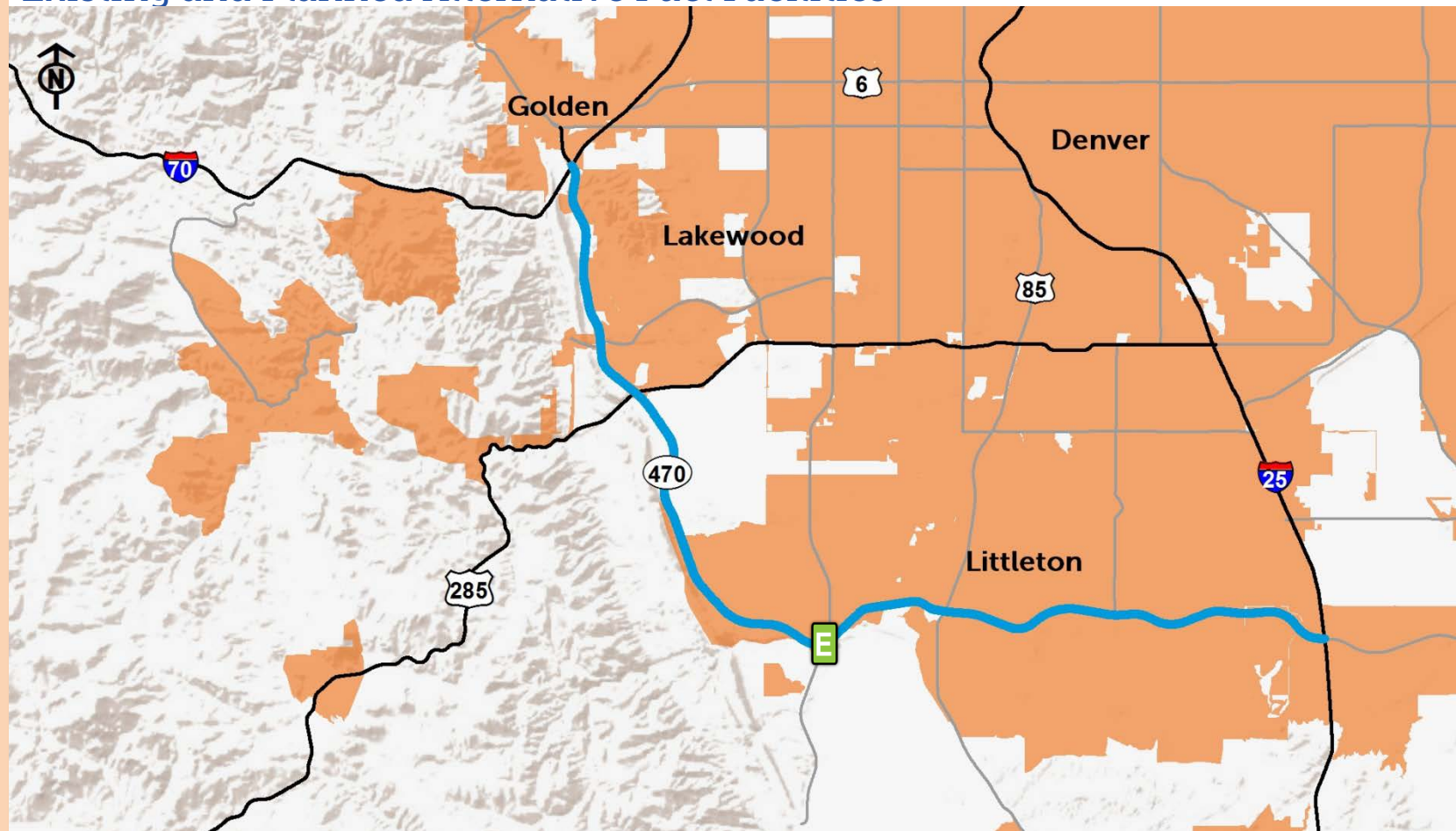
<b>Vehicle Use (VMT)</b> :		<b>Length (Miles)</b> <b>26</b>	<b>Infrastructure Focus</b> <b>EV</b>	<b>Population (2010)</b> <b>661,404</b>	<b>Employment</b> <b>369,895</b>	<b>Median Rural Income</b> <b>\$0</b> (no rural population)	<b>Median Urban Income</b> <b>\$81,953</b>																		
<b>Current Daily VMT</b> <b>2,194,393</b>	<b>2020 Daily VMT</b> <b>2,470,638</b>	<b>2040 Daily VMT</b> <b>3,572,685</b>	<b>Current Truck VMT</b> <b>44,550</b>	<b>2020 Truck VMT</b> <b>50,189</b>	<b>2040 Truck VMT</b> <b>72,678</b>	<b>National Network Connectivity</b> <b>I-70, I-25</b>																			
<b>Tailpipe Emission Reduction EV</b> <table border="1"> <tr><td>NO<sub>x</sub></td><td>100%</td></tr> <tr><td>VOC</td><td>100%</td></tr> <tr><td>CO<sub>2</sub></td><td>100%</td></tr> </table>		NO <sub>x</sub>	100%	VOC	100%	CO <sub>2</sub>	100%	<b>Tailpipe Emission Reduction CNG</b> <table border="1"> <tr><td>NO<sub>x</sub></td><td>0%</td></tr> <tr><td>VOC</td><td>0%</td></tr> <tr><td>CO<sub>2</sub></td><td>0%</td></tr> </table>		NO <sub>x</sub>	0%	VOC	0%	CO <sub>2</sub>	0%	<b>Tailpipe Emission Reduction Hydro</b> <table border="1"> <tr><td>NO<sub>x</sub></td><td>0%</td></tr> <tr><td>VOC</td><td>0%</td></tr> <tr><td>CO<sub>2</sub></td><td>0%</td></tr> </table>		NO <sub>x</sub>	0%	VOC	0%	CO <sub>2</sub>	0%	<b>Investment Need</b> <b>EV</b> <b>\$300,000</b>	<input checked="" type="checkbox"/> Connects to major metro area <input type="checkbox"/> Connects to adjacent state(s) <input type="checkbox"/> Connects to major intermodal facilities
NO <sub>x</sub>	100%																								
VOC	100%																								
CO <sub>2</sub>	100%																								
NO <sub>x</sub>	0%																								
VOC	0%																								
CO <sub>2</sub>	0%																								
NO <sub>x</sub>	0%																								
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CO <sub>2</sub>	0%																								

**Major Metropolitan Areas**  
 Denver, Littleton, Lakewood, Golden

### Past Successes and Partnerships

This corridor includes no funded CNG stations or EV chargers at this time.

### Existing and Planned Alternative Fuel Facilities



#### PROPOSED

EV

Total: 1

Future EV stations every 30 miles.

NHS and Proposed Alternative Fuels Highways   
 NHS Highways Only



### Short-term Strategic Goals (2020)

Statewide: EV as 3% of new passenger vehicle sales and CNG as 5% of new medium / heavy duty vehicle sales by 2020.

### Long-term Strategic Goals (2040)

Statewide: Establish a sustainable statewide alternative fuels network and market for Colorado.



# US 285: Denver to Poncha Springs (Tier 2)

US 285 is a predominantly passenger focused corridor that connects the populous and growing Denver metro area to the more rural recreational centers of central Colorado such as Fairplay, Buena Vista, and Salida. It provides connectivity between I-25 along the Front Range and the east-west corridor of US 50, an important secondary route parallel to I-70. It also serves as an important recreational travel route for those visiting Chaffee County, the San Luis Valley, and the southwest areas of the state. There is currently no DC Fast Charging infrastructure along the corridor, but Colorado will work to build partnerships with local communities and other state agencies to advance a sustainable alternative fueling network for Colorado and the entire country.

<b>Vehicle Use (VMT)</b> :	<b>Length (Miles)</b> 124	<b>Infrastructure Focus</b> EV
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<b>Population (2013)</b> 886,679	<b>Employment</b> 496,470	<b>Median Rural Income</b> \$ 83,212	<b>Median Urban Income</b> \$ 60,563
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<b>Current Daily VMT</b> 1,738,476	<b>2020 Daily VMT</b> 1,845,901	<b>2040 Daily VMT</b> 2,274,508
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<b>Current Truck VMT</b> 77,021	<b>2020 Truck VMT</b> 83,266	<b>2040 Truck VMT</b> 108,204
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## National Network Connectivity

<b>I-25</b>	<b>Investment Need</b>
<input checked="" type="checkbox"/> Connects to major metro area	EV \$1,500,000
<input type="checkbox"/> Connects to adjacent state(s)	CNG \$0
<input type="checkbox"/> Connects to major intermodal facilities	Hydrogen \$0

## Major Metropolitan Areas

Denver, Fairplay, Buena Vista, Salida

<b>Tailpipe Emission Reduction EV</b>	<b>Tailpipe Emission Reduction CNG</b>	<b>Tailpipe Emission Reduction Hydro</b>
NO <sub>x</sub> 100%	NO <sub>x</sub> 0%	NO <sub>x</sub> 0%
VOC 100%	VOC 0%	VOC 0%
CO <sub>2</sub> 100%	CO <sub>2</sub> 0%	CO <sub>2</sub> 0%

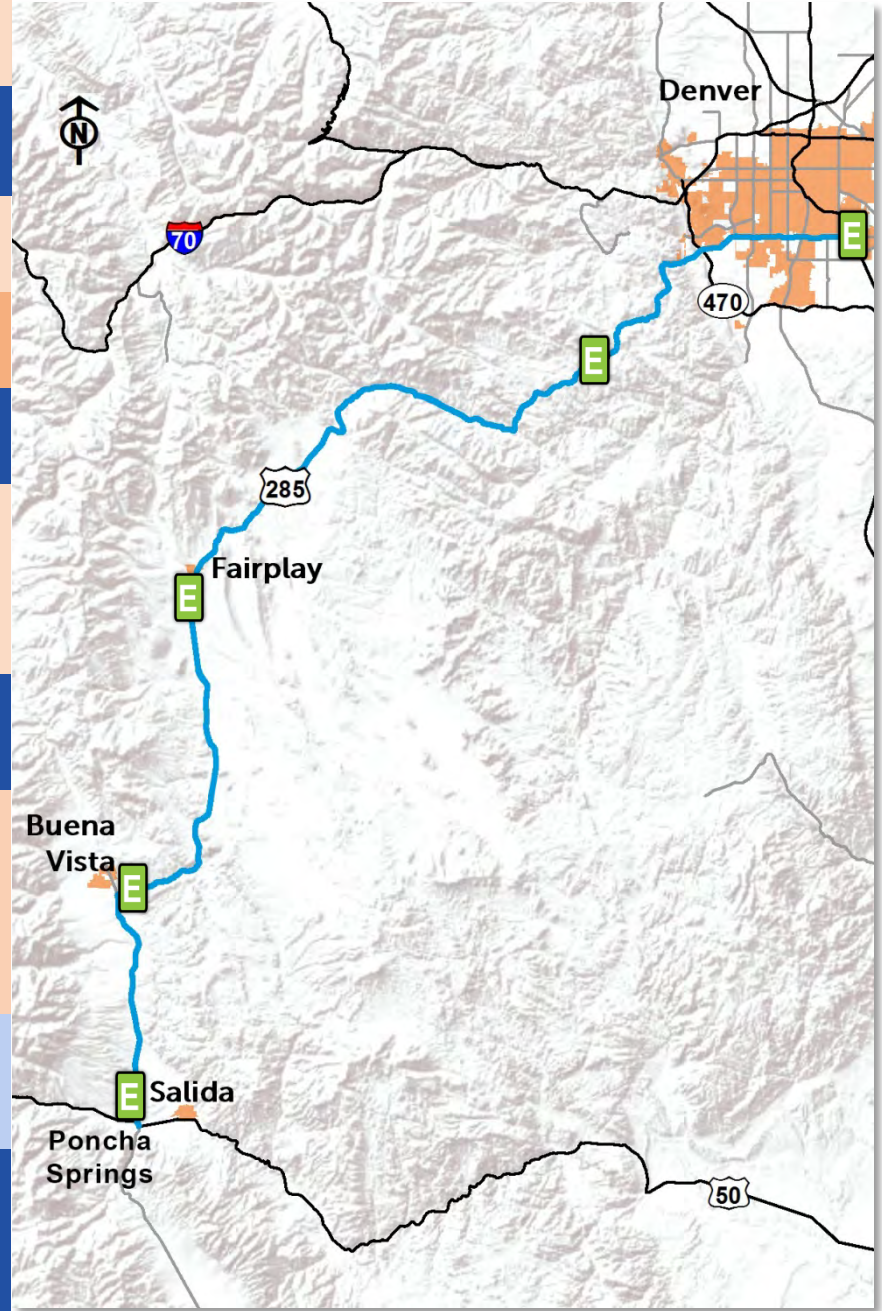
## Past Successes and Partnerships

This corridor includes no funded CNG stations or EV chargers at this time.

**Short-term Strategic Goals (2020)**  
Statewide: EV as 3% of new passenger vehicle sales and CNG as 5% of new medium / heavy duty vehicle sales by 2020.

**Long-term Strategic Goals (2040)**  
Statewide: Establish a sustainable statewide alternative fuels network and market for Colorado.

## Existing and Planned Alternative Fuel Facilities



**PROPOSED**  
EV Total: 5  
Future EV stations every 30 miles; additional future stations where warranted.  
NHS and Proposed Alternative Fuels Highways NHS Highways Only












# US 160: Walsenburg to New Mexico (Tier 2)

US 160 is an important secondary east-west route that connects the southern areas of the state from I-25 in Walsenburg, through Alamosa, Monte Vista, and Durango to the Four Corners area bordering New Mexico, Utah, and Arizona. It has both freight and passenger traffic and presents opportunities for the development of both CNG and EV infrastructure. Colorado has already begun this work through the funding of a new CNG station in Durango and will continue to develop its partnerships with local communities and other state agencies to advance a sustainable alternative fueling network for Colorado and the entire country.

<b>Vehicle Use (VMT)</b> 		<b>Length (Miles)</b> 304	<b>Infrastructure Focus</b> CNG/EV 	<b>Population (2010)</b> 121,453	<b>Employment</b> 61,017	<b>Median Rural Income</b> \$49,489	<b>Median Urban Income</b> \$43,351
<b>Current Daily VMT</b> 1,973,721	<b>2020 Daily VMT</b> 2,106,656	<b>2040 Daily VMT</b> 2,636,194	<b>Current Truck VMT</b> 160,536	<b>2020 Truck VMT</b> 170,083	<b>2040 Truck VMT</b> 208,101	<b>National Network Connectivity</b> New Mexico, I-25	
<b>Tailpipe Emission Reduction EV</b>  NO <sub>x</sub> 100% VOC 100% CO <sub>2</sub> 100%		<b>Tailpipe Emission Reduction CNG</b>  NO <sub>x</sub> 50% VOC 3% CO <sub>2</sub> 8%		<b>Tailpipe Emission Reduction Hydro</b>  NO <sub>x</sub> 0% VOC 0% CO <sub>2</sub> 0%		<b>Investment Need</b> EV \$3,000,000 CNG \$2,000,000 Hydrogen \$0	
						<input type="checkbox"/> Connects to major metro area <input checked="" type="checkbox"/> Connects to one adjacent state <input checked="" type="checkbox"/> Connects to major intermodal facilities	

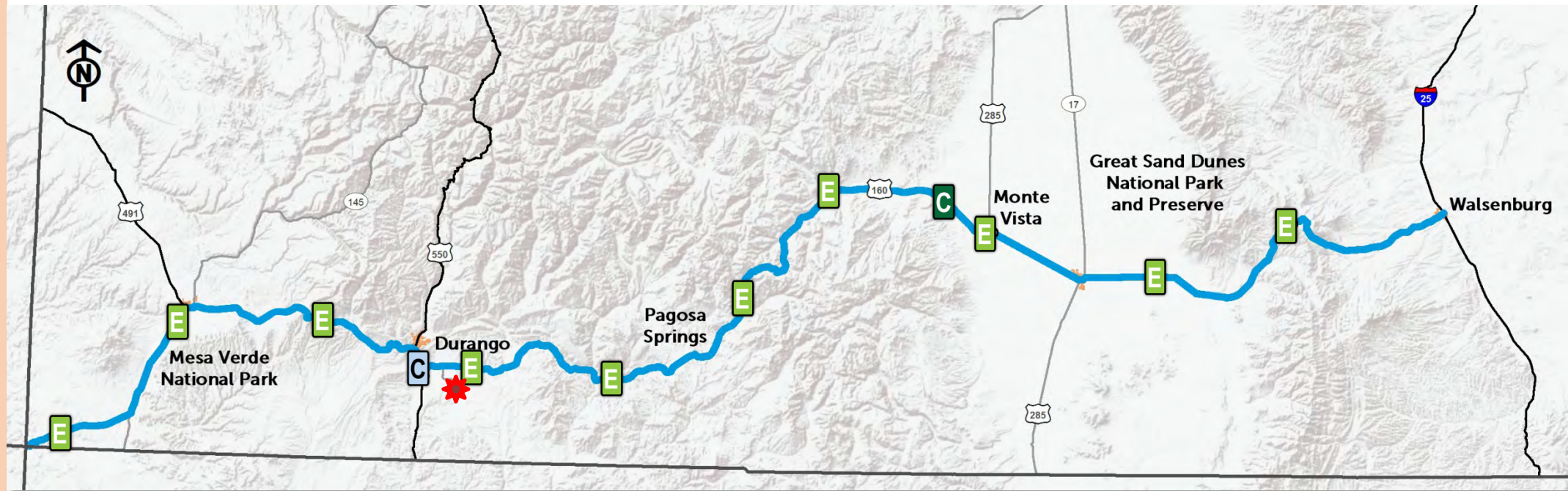
**Major Metropolitan Areas**  
Alamosa, Monte Vista, Pagosa Springs, Durango, Great Sand Dunes NP, Mesa Verde NP

## Past Successes and Partnerships

To date 1 new CNG station (Durango) has been funded along this corridor through the Alt Fuels Colorado partnership between the Colorado Department of Transportation (CDOT), the Colorado Energy Office (CEO), and the Regional Air Quality Council (RAQC).



## Existing and Planned Alternative Fuel Facilities



EXISTING

CNG 

TOTAL: 1



PROPOSED

CNG 

EV 

Total CNG: 1  
Total EV: 10

Future EV stations every 30 miles; additional future CNG stations where warranted.

NHS and Proposed Alternative Fuels Highways   
NHS Highways Only 

Intermodal connection 

## Short-term Strategic Goals (2020)

Statewide: EV as 3% of new passenger vehicle sales and CNG as 5% of new medium / heavy duty vehicle sales by 2020.

## Long-term Strategic Goals (2040)

Statewide: Establish a sustainable statewide alternative fuels network and market for Colorado.



# US 50: Kansas to Grand Junction (Tier 2)

US 50 is an important secondary east-west route that connects the central areas of the state from Grand Junction in the west through Montrose, Gunnison, and Salida to I-25 in Pueblo and onward through the Eastern Plains to the Kansas border. It carries both freight and passenger traffic, and presents opportunities for the development of both CNG and EV infrastructure. Colorado has already begun this work through the funding of new CNG stations in Gunnison and Pueblo, and will continue to develop its partnerships with local communities and other state agencies to advance a sustainable alternative fueling network for Colorado and the entire country

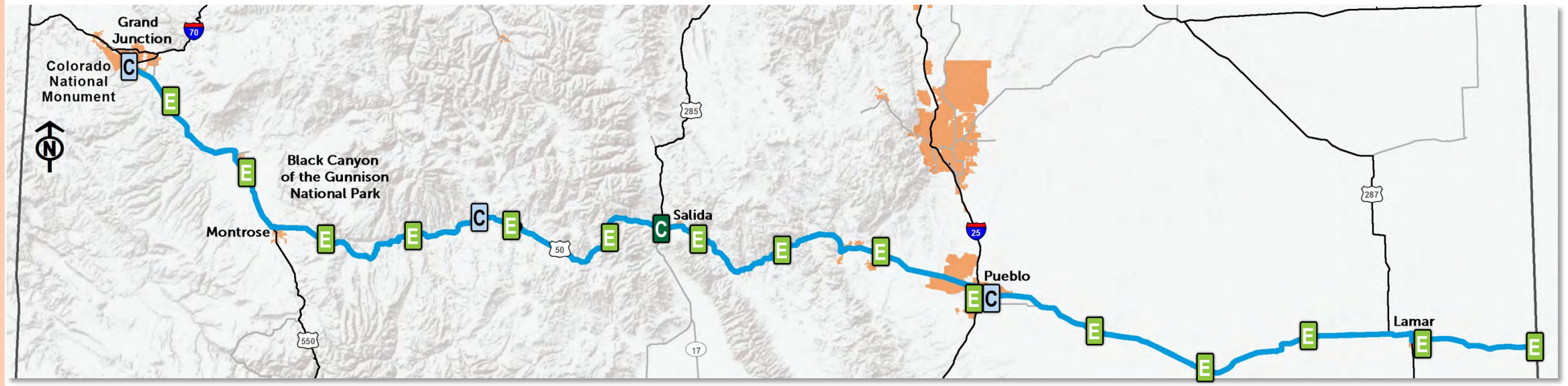
<b>Vehicle Use (VMT)</b> :		<b>Length (Miles)</b> 434	<b>Infrastructure Focus</b> CNG/EV	<b>Population (2010)</b> 453,982	<b>Employment</b> 208,951	<b>Median Rural Income</b> \$42,182	<b>Median Urban Income</b> \$39,443																									
<b>Current Daily VMT</b> 2,709,583	<b>2020 Daily VMT</b> 2,866,750	<b>2040 Daily VMT</b> 3,492,661	<b>Current Truck VMT</b> 240,148	<b>2020 Truck VMT</b> 252,130	<b>2040 Truck VMT</b> 299,827	<b>National Network Connectivity</b> Kansas, I-70																										
<b>Tailpipe Emission Reduction EV</b> <table border="1"> <tr><td>NO<sub>x</sub></td><td>100%</td></tr> <tr><td>VOC</td><td>100%</td></tr> <tr><td>CO<sub>2</sub></td><td>100%</td></tr> </table>		NO <sub>x</sub>	100%	VOC	100%	CO <sub>2</sub>	100%	<b>Tailpipe Emission Reduction CNG</b> <table border="1"> <tr><td>NO<sub>x</sub></td><td>50%</td></tr> <tr><td>VOC</td><td>3%</td></tr> <tr><td>CO<sub>2</sub></td><td>8%</td></tr> </table>		NO <sub>x</sub>	50%	VOC	3%	CO <sub>2</sub>	8%	<b>Tailpipe Emission Reduction Hydro</b> <table border="1"> <tr><td>NO<sub>x</sub></td><td>0%</td></tr> <tr><td>VOC</td><td>0%</td></tr> <tr><td>CO<sub>2</sub></td><td>0%</td></tr> </table>		NO <sub>x</sub>	0%	VOC	0%	CO <sub>2</sub>	0%	<b>Investment Need</b> <table border="1"> <tr><td>EV</td><td>\$4,500,000</td></tr> <tr><td>CNG</td><td>\$2,000,000</td></tr> <tr><td>Hydrogen</td><td>\$0</td></tr> </table>		EV	\$4,500,000	CNG	\$2,000,000	Hydrogen	\$0	<input checked="" type="checkbox"/> Connects to major metro area <input checked="" type="checkbox"/> Connects to one adjacent state <input type="checkbox"/> Connects to major intermodal facilities
NO <sub>x</sub>	100%																															
VOC	100%																															
CO <sub>2</sub>	100%																															
NO <sub>x</sub>	50%																															
VOC	3%																															
CO <sub>2</sub>	8%																															
NO <sub>x</sub>	0%																															
VOC	0%																															
CO <sub>2</sub>	0%																															
EV	\$4,500,000																															
CNG	\$2,000,000																															
Hydrogen	\$0																															

**Major Metropolitan Areas**  
 Lamar, Pueblo, Salida, Montrose, Grand Junction, Black Canyon of the Gunnison NP

**Past Successes and Partnerships**  
 To date 2 new CNG stations (Gunnison, Pueblo) have been funded along this corridor through the Alt Fuels Colorado partnership between the Colorado Department of Transportation (CDOT), the Colorado Energy Office (CEO), and the Regional Air Quality Council (RAQC).



## Existing and Planned Alternative Fuel Facilities



<b>EXISTING</b> CNG  Total: 3	<b>PROPOSED</b> CNG  Total CNG: 1 EV  Total EV: 15	Future EV stations every 30 miles; future CNG stations where warranted.  NHS and Proposed Alternative Fuels Highways NHS Highways Only
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### Short-term Strategic Goals (2020)

Statewide: EV as 3% of new passenger vehicle sales and CNG as 5% of new medium / heavy duty vehicle sales by 2020.  
 Within Mesa County: By 2020, Grand Valley Transit will establish a 100% CNG bus fleet and the City of Grand Junction will convert 275 municipal vehicles to CNG.

### Long-term Strategic Goals (2040)

Statewide: Establish a sustainable statewide alternative fuels network and market for Colorado.



# US 550: Montrose to New Mexico (Tier 2)

US 550 is an important north-south route that connects the Western Slope of Colorado from Montrose to Durango and on to the border with New Mexico. It carries both freight and passenger traffic and presents opportunities for the development of both CNG and EV infrastructure. Colorado has already begun this work through the funding of a new CNG station in Durango and will continue to develop its partnerships with local communities and other state agencies to advance a sustainable alternative fueling network for Colorado and the entire country.

<b>Vehicle Use (VMT)</b> :	<b>Length (Miles)</b> 129	<b>Infrastructure Focus</b> CNG/EV
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<b>Population (2013)</b> 87,820	<b>Employment</b> 46,627	<b>Median Rural Income</b> \$62,778	<b>Median Urban Income</b> \$51,597
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<b>Current Daily VMT</b> 880,001	<b>2020 Daily VMT</b> 930,339	<b>2040 Daily VMT</b> 1,130,776
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<b>Current Truck VMT</b> 48,752	<b>2020 Truck VMT</b> 51,504	<b>2040 Truck VMT</b> 62,463
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## National Network Connectivity New Mexico

<input type="checkbox"/> Connects to major metro area <input checked="" type="checkbox"/> Connects to one adjacent state <input type="checkbox"/> Connects to major intermodal facilities	<b>Investment Need</b> EV \$1,500,000 CNG \$4,000,000 Hydrogen \$0
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## Major Metropolitan Areas Montrose, Durango

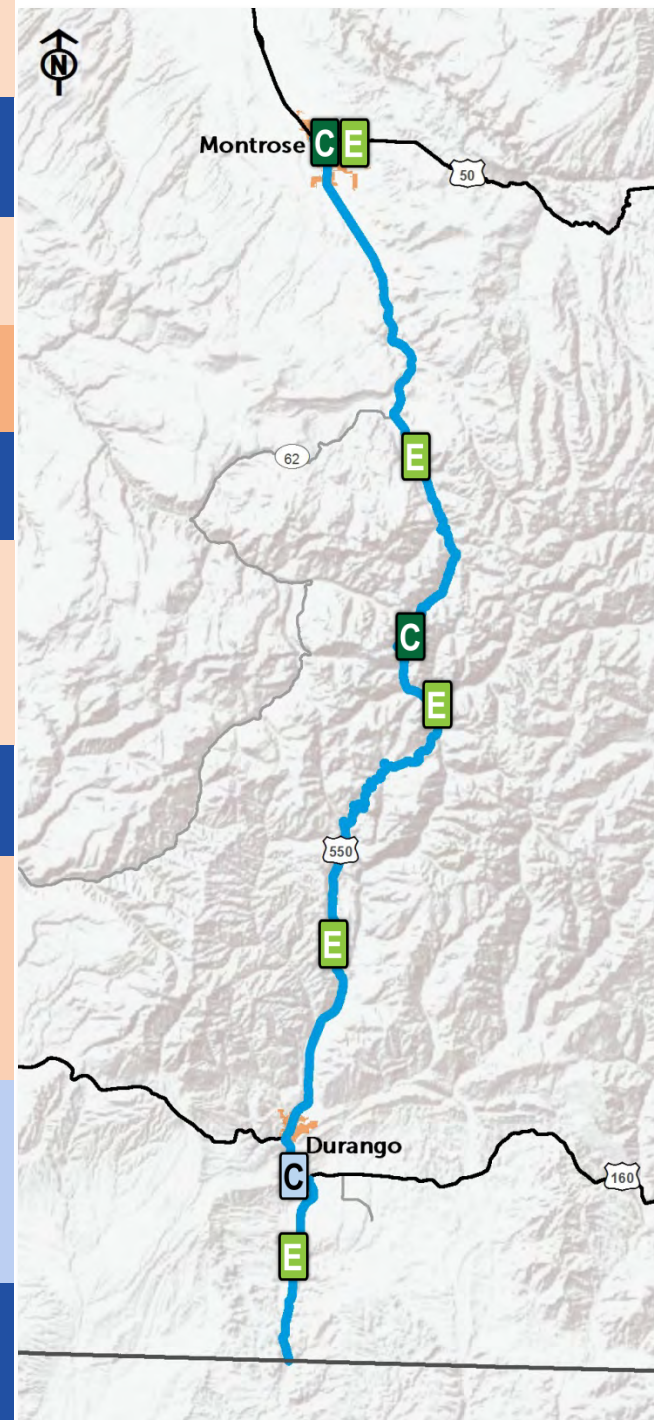
<b>Tailpipe Emission Reduction EV</b> NO <sub>x</sub> 100% VOC 100% CO <sub>2</sub> 100%	<b>Tailpipe Emission Reduction CNG</b> NO <sub>x</sub> 50% VOC 3% CO <sub>2</sub> 8%	<b>Tailpipe Emission Reduction Hydro</b> NO <sub>x</sub> 0% VOC 0% CO <sub>2</sub> 0%
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**Past Successes and Partnerships**  
 To date **1 new CNG station (Durango)** has been funded along this corridor through the Alt Fuels Colorado partnership between the Colorado Department of Transportation (CDOT), the Colorado Energy Office (CEO), and the Regional Air Quality Council (RAQC).

**Short-term Strategic Goals (2020)**  
 Statewide: EV as 3% of new passenger vehicle sales and CNG as 5% of new medium / heavy duty vehicle sales by 2020.

**Long-term Strategic Goals (2040)**  
 Statewide: Establish a sustainable statewide alternative fuels network and market for Colorado.

## Existing and Planned Alternative Fuel Facilities



**EXISTING**  
 CNG Total: 1

**PROPOSED**  
 CNG EV   
 Total CNG: 2  
 Total EV: 5

Future EV stations every 30 miles;  
 future CNG stations every 50 miles.

NHS and Proposed Alternative Fuels Highways   
 NHS Highways Only





# US 40: I-70 to Utah (Tier 2)

US 40 is an important east-west route that connects the northern areas of Colorado from I-70 through the rural and recreational communities of Winter Park, Fraser, Steamboat Springs, and Craig, to the Utah border near Dinosaur National Monument. It carries both freight and passenger traffic, and presents opportunities for the development of both CNG and EV infrastructure. There is currently no publicly-accessible DC Fast Charging or CNG fueling infrastructure along the corridor, but Colorado will work to build partnerships with local communities and other state agencies to advance a sustainable alternative fueling network for Colorado and the entire country.

<b>Vehicle Use (VMT)</b> 		<b>Length (Miles)</b> 257	<b>Infrastructure Focus</b> CNG/EV	<b>Population (2010)</b> 735,624	<b>Employment</b> 532,811	<b>Median Rural Income</b> \$53,284	<b>Median Urban Income</b> \$53,284
<b>Current Daily VMT</b> 1,033,210	<b>2020 Daily VMT</b> 1,083,706	<b>2040 Daily VMT</b> 1,284,531	<b>Current Truck VMT</b> 79,879	<b>2020 Truck VMT</b> 84,511	<b>2040 Truck VMT</b> 102,963	<b>National Network Connectivity</b> Utah, I-70	
<b>Tailpipe Emission Reduction EV</b> NO <sub>x</sub> 100% VOC 100% CO <sub>2</sub> 100%		<b>Tailpipe Emission Reduction CNG</b> NO <sub>x</sub> 50% VOC 3% CO <sub>2</sub> 8%		<b>Tailpipe Emission Reduction Hydro</b> NO <sub>x</sub> 0% VOC 0% CO <sub>2</sub> 0%		<b>Investment Need</b> EV \$2,700,000 CNG \$6,000,000 Hydrogen \$0	
<input type="checkbox"/> Connects to major metro area <input checked="" type="checkbox"/> Connects to one adjacent state <input type="checkbox"/> Connects to major intermodal facilities							

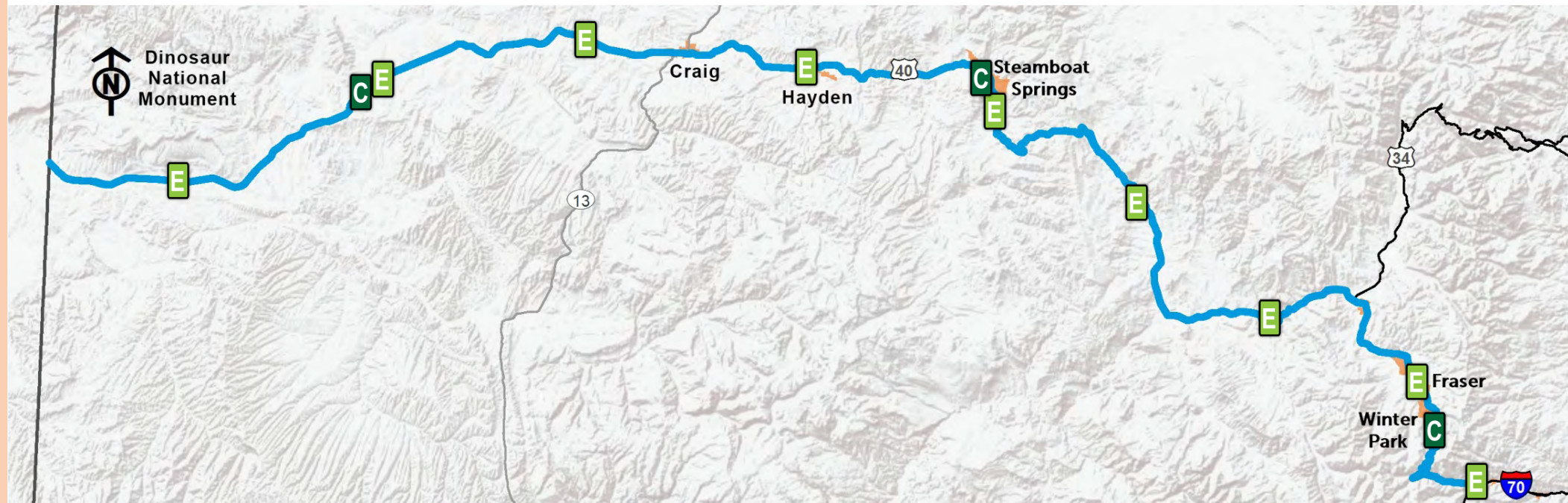
**Major Metropolitan Areas**  
Steamboat Springs, Winter Park, Fraser

## Past Successes and Partnerships

This corridor includes no funded CNG stations or EV chargers at this time.



## Existing and Planned Alternative Fuel Facilities



### PROPOSED

- CNG
- EV

Total CNG: 3  
Total EV: 9

Future EV stations every 30 miles;  
future CNG stations every 50 miles or  
where warranted.

NHS and Proposed Alternative  
Fuels Highways   
NHS Highways Only

## Short-term Strategic Goals (2020)

Statewide: EV as 3% of new passenger vehicle sales and CNG as 5% of new medium / heavy duty vehicle sales by 2020.

## Long-term Strategic Goals (2040)

Statewide: Establish a sustainable statewide alternative fuels network and market for Colorado.



# US 491: Cortez to Utah (Tier 2)

US 491 is an important regional connector for the southwest area of Colorado from the Utah border to Mesa Verde National Park, Canyons of the Ancients National Monument, and the community of Cortez. It carries both freight and passenger traffic, and presents opportunities for the development of both CNG and EV infrastructure. There is currently no publicly accessible DC Fast Charging or CNG fueling infrastructure along the corridor, but Colorado will work to build partnerships with local communities and other state agencies to advance a sustainable alternative fueling network for Colorado and the entire country.

<b>Vehicle Use (VMT)</b> :	<b>Length (Miles)</b> 43	<b>Infrastructure Focus</b> CNG/EV
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<b>Population (2013)</b> 27,779	<b>Employment</b> 13,470	<b>Median Rural Income</b> \$46,515	<b>Median Urban Income</b> \$38,034
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<b>Current Daily VMT</b> 197,155	<b>2020 Daily VMT</b> 212,811	<b>2040 Daily VMT</b> 275,276
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<b>Current Truck VMT</b> 31,515	<b>2020 Truck VMT</b> 34,090	<b>2040 Truck VMT</b> 44,364
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## National Network Connectivity Utah

<input type="checkbox"/> Connects to major metro area <input checked="" type="checkbox"/> Connects to adjacent state(s) <input type="checkbox"/> Connects to major intermodal facilities	<b>Investment Need</b> EV \$300,000 CNG \$2,000,000 Hydrogen \$0
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## Major Metropolitan Areas Cortez, Mesa Verde NP

<b>Tailpipe Emission Reduction EV</b> NO <sub>x</sub> 100% VOC 100% CO <sub>2</sub> 100%	<b>Tailpipe Emission Reduction CNG</b> NO <sub>x</sub> 50% VOC 3% CO <sub>2</sub> 8%	<b>Tailpipe Emission Reduction Hydro</b> NO <sub>x</sub> 0% VOC 0% CO <sub>2</sub> 0%
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**Past Successes and Partnerships**  
 This corridor includes no funded CNG stations or EV chargers at this time.

**Short-term Strategic Goals (2020)**  
 Statewide: EV as 3% of new passenger vehicle sales and CNG as 5% of new medium / heavy duty vehicle sales by 2020.

**Long-term Strategic Goals (2040)**  
 Statewide: Establish a sustainable statewide alternative fuels network and market for Colorado.

## Existing and Planned Alternative Fuel Facilities



**PROPOSED**

CNG

EV

Total CNG: 1  
Total EV: 1

Future stations where warranted.

NHS and Proposed Alternative Fuels Highways   
 NHS Highways Only







**Memo**

**To:** Wes Maurer, Colorado Energy Office

**From:** Jim Durand, Director, Renewable Hydrogen and Fuel Cell Collaborative

**Date:** August 10, 2016

**Re:** FAST ACT RFI, I-70 Alternative Fuels Corridor

I-70 Alternative Fuels Corridor

This is a Memo from the Ohio Fuel Cell Coalition (OFCC) and the Renewable Hydrogen and Fuel Cell Collaborative (RHFCC) in support of establishing an alternative fuels corridor along the I-70 route from Pennsylvania to Colorado.

The OFCC is a united group of industry, academic, and government leaders working collectively to strengthen Ohio's fuel cell industry and to accelerate the transformation of the region to global leadership in fuel cell technology. Working closely with the OFCC is the RHFCC whose mission statement is: to make the Ohio region a US and global leader in the adoption of renewable hydrogen in transportation.

Fuel cell vehicles are proven, and cost reductions through mass production have begun. The key and often forgotten component is now the refueling infrastructure. Hydrogen refueling stations are expensive, and with little chance to recover the initial investment, it is very hard to get refueling points established. And with no refueling infrastructure, it is difficult if not impossible to get car manufacturers (OEMs) to release cars to the region. This fact was underscored by a recent DOE Funding Opportunity for Alternative Fueled Vehicles (DOE FOA 0001535). Our concept was to deploy 15 fuel cell vehicles to 4 municipal fleets, and then to develop or augment 4 refueling points in the mid-Ohio region. Based on an initial concept paper, the DOE invited us to submit a full proposal. Yet despite the prospect of DOE support, our prospects have been sketchy for OEM's to sell us the fuel cell cars we needed. Toyota, for example, said that they were not planning to release fuel cell vehicles into the Ohio region until 2020. Of course this could all change if there was an existing network of hydrogen refueling points established in the region.

The I-70 corridor is a vital and heavily traveled transportation artery across the center of the US, which links key metropolitan centers along its route. In particular, I-70 cuts through Columbus Ohio, a important city on the route because of its strong commitment to alternative fuels. The Columbus area, regional Transit Authority (COTA), for example, is converting their entire fleet of 330 buses to natural gas,





which is supported by 2 large refueling stations. And the City of Columbus, with numerous top green fleets and management awards, is also converting its fleet to natural gas, which is supported by 3 large refueling stations with public access. In addition, the City of Columbus is the winner of the Department of Transportation's Smart Cities award. In conjunction with this grant, the City will be spending close to \$150 Million on a variety of projects including alternative fuels refueling infrastructure.

In hydrogen, there is a small (10 kg/day) refueling station that will be opening soon at The Ohio State University – Center for Automotive Research. In addition, nearby Canton Ohio will be opening a large (300 kg/day) refueling station to support a large fleet of 11 fuel cell buses that will be operating at the Canton based Stark county Area Regional Transit Authority (SARTA). With 11 fuel cell buses and a 300 kg/day hydrogen refueling station, SARTA will have the nation's largest fuel cell bus fleet and hydrogen refueling station outside of California.

Another regional strength is Honda. Their North American headquarters is in Marysville Ohio, just outside of Columbus. Honda has made a strong commitment to hydrogen fuel cell vehicles, with the release of the Clarity, right behind Toyota's release of the hydrogen fuel cell powered Mirai.

In summary, the I-70 corridor is a vital link across the center of our country and should be augmented with alternative refueling points including hydrogen. The government's investment in refueling infrastructure is a key to the development of alternative fueled vehicles. In Ohio, Columbus is a key city, with a number of existing and future alternative refueling points that could be linked with the I-70 corridor. And the city of Columbus itself will be adding many new alternative fuels refueling points, through the execution of the Smart Cities grant. In addition, the region is supported by strong hydrogen related activity by SARTA in Canton, and Honda in Marysville. Finally, the region has very active support from organizations like the OFCC and the RHFCC.





August 22, 2016

Wes Maurer  
Colorado Energy Office  
1580 Logan Street, Suite 100  
Denver, CO 80203

Subject: Colorado Submission for National Alternative Fuel Refueling Corridors

Dear Wes

The Federal Highway Administration (FHWA) has issued a Federal Register Notice to solicit input from Colorado in designating national alternative fuel refueling corridors. Propane is one of the fuels explicitly listed for consideration in these corridors. The purpose of this letter is to request that you submit a nomination to the FHWA highlighting the role of propane as an alternative fuel in Colorado by the August 22, 2016 deadline.

The designation of these corridors will be quite helpful in promoting the use of alternative fuels and increasing their mainstream acceptance in the marketplace. It will be a valuable effort in continuing to grow the network of alternative fuel refueling stations, which will make it easier to utilize alternative fueled vehicles throughout the country.

The FHWA is focused on four major criteria when considering these new refueling corridors— Alternative Fuel Facilities, Corridor Scale/Impact, Emissions Reductions, and Development of Team and Degree of Collaboration and Support. As you are developing the nominations from Colorado, please include the effectiveness of propane in meeting these criteria. Below are several reasons why propane is a key fit for Colorado in these corridors. I am happy to discuss these points in further detail.

**Alternative Fuel Facilities** - There are more than 3,300 public propane fueling locations nationwide, including 27 public vehicle-ready stations open now, and 27 more public stations that can fill AFVs in Colorado. This is in addition to over 100 other fueling locations already utilized by fleets, rental centers and RV campgrounds throughout our state, many of which could also be used for potential public refueling sites. These fueling locations are typically located either along major highways or on feeder roads that connect to the National Highway System. Additionally, refueling infrastructure already meets uniform standards for safety across all manufacturers and providers.

**Corridor Scale/Impact** – There are a number of feeder routes or roads in Colorado that connect to the National Highway System, which is a part of the criteria FHWA uses that makes a given corridor eligible for designation as an alternative fuel corridor. Developing a national network of propane refueling



points will help expand its use from mainly on road fleets to more universal passenger and commercial travel.

Emission Reductions - Propane engines produce 12 percent less CO2 emissions, 20 percent less NOX emissions, and 60 percent less CO emissions than gasoline engines. They also produce 80 percent less smog-producing hydrocarbon emissions than conventional diesel engines.

Development of Team and Degree of Collaboration and Support – The propane industry has an established track record of working with state and national agencies, other alternative fuel industries, as well as public and private entities in increasing the utilization of alternative fuels. A key example of this has been the industry's ongoing work with the Department of Energy's Clean Cities Program and with the Colorado Energy Office.

For the US DOT request for Alt Fuel Corridors planning in Colorado, please consider including the following roads for propane for AFV corridor participation with the state.

I-70, I-25 and I-76, plus

US 40, 285, 24, 50 and 160

Propane is planning to use both new equipment, and upgrades to existing equipment to include credit card access and billing for vehicle fueling.

The deadline for nominations is quickly approaching. I think it is important for Colorado to be an active partner in developing these corridors with the FHWA. It will have a long term, positive impact on the propane and other alternative fuel industries. Please let us know any comments and other thoughts you have for this program, including any other corridors the state or local agencies may want to develop as AFV corridors.

Sincerely,

A handwritten signature in blue ink, appearing to read "Randy A. Crane", written over a horizontal line.

Randy A. Crane

President

Colorado Propane Gas Association



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Charleston, SC 29401

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August 19, 2016

**RE: Alternative Fuel Corridor Nominations**

To Whom It May Concern:

We are writing to support Colorado's nomination of I-70 as an Alternative Fuel Corridor. Clean Energy is North America's largest provider of natural gas transportation fuel. Our portfolio includes 589 stations in 43 states. Approximately 250 of these stations comprise America's Natural Gas Highway (ANGH) a network of truck accessible stations along the major interstate highways which facilitate goods movement. One of the main transcontinental corridors in ANGH is I-70. We have 4 stations along the route in Colorado and 19 stations along its total length.

Our fueling network continues to use more and more renewable natural gas (RNG) which is the lowest carbon intensity fuel available for heavy-duty trucks on the market today. Combined with the arrival of new low NOx engines from Cummins-Westport, ANGH is an extremely effective strategy for combating class 7 and 8 truck emissions.

The designation of I-70 as an alternative fuel corridor will focus attention on one of the heaviest traveled east to west routes in the nation. Access to alternative fuel stations on this interstate makes alternative fuel vehicles feasible to a very large market. Thank you for considering Colorado's request.

Regards,

A handwritten signature in black ink, appearing to read "Brett Barry", is positioned above the typed name.

Brett Barry  
Senior Policy Advisor  
Clean Energy





**ChargePoint, Inc.**

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August 18, 2016

U.S. Department of Transportation  
Docket Operations, M-30  
West Building Ground Floor, Room W12-140  
1200 New Jersey Avenue SE.  
Washington, DC 20590

RE: State of Colorado FAST Act Nomination

To Whom It May Concern:

ChargePoint is writing in support of the Fixing America's Surface Transportation (FAST) Act Alternative Fuel Corridor nomination submitted by the State of Colorado. ChargePoint is the world's largest and most open electric vehicle charging network with more than 30,000 Level 2 EV and DC fast charging spots around the country, including 518 public and private ports in Colorado.

Colorado has identified several key highway corridors in its nomination as it seeks to connect drivers in all parts of the state and to its borders with neighboring New Mexico, Wyoming, and Kansas. The goals of this nomination align with ChargePoint's own mission to expand a national network of charging stations and make it possible for drivers to charge wherever they live, work, or travel. Colorado has a strong EV driver population and through the state's policy leadership, we expect that EV adoption will continue to grow rapidly here over the next few years.

ChargePoint is proud to support Colorado and looks forward to ongoing collaboration with the state.

Thank you for considering our support.

Sincerely,

A handwritten signature in black ink that reads "Anne Smart".

Anne Smart  
Director, Government Relations and Regulatory Affairs  
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