



# Electric Vehicle Charging & Building Codes

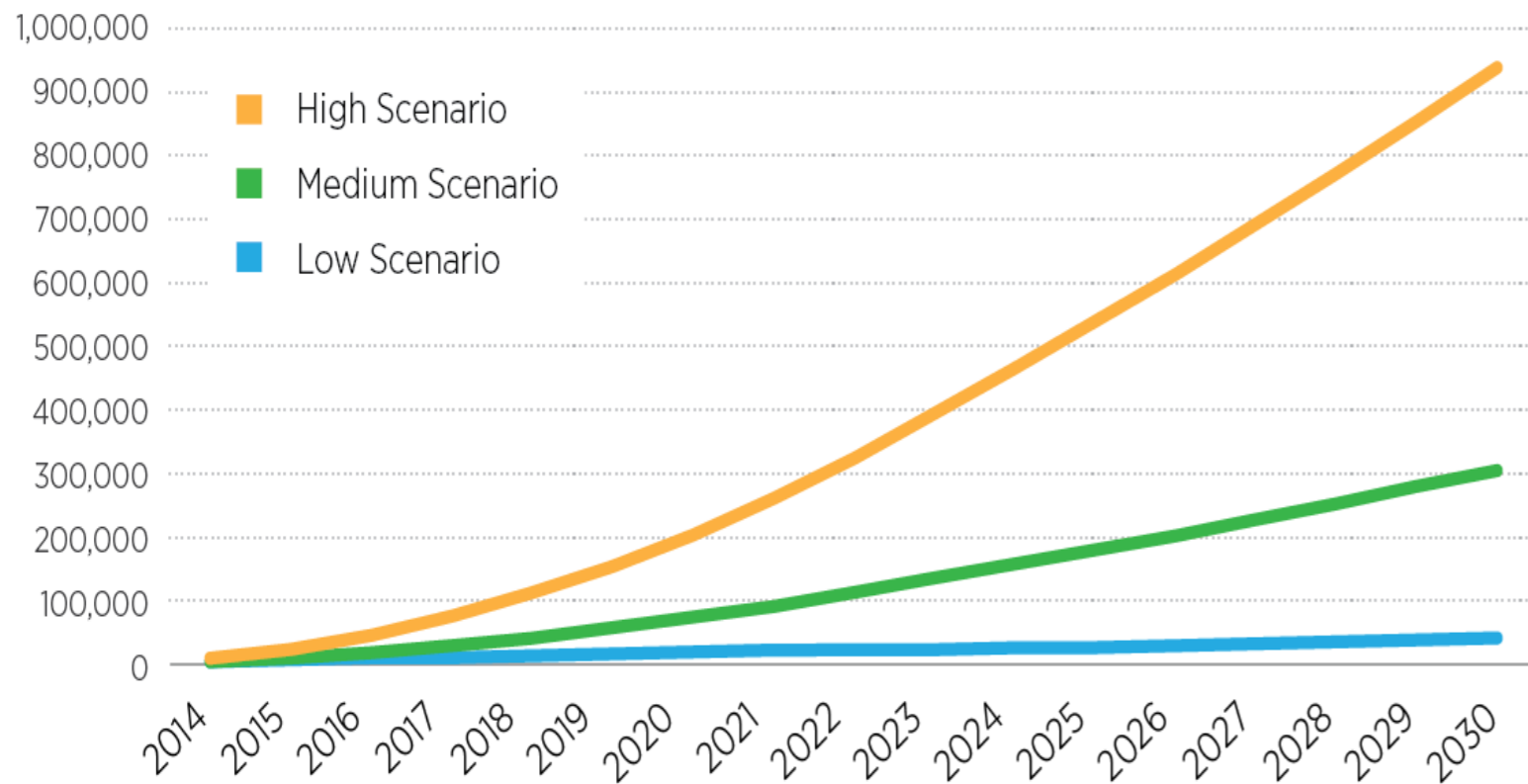
Zach Owens, Program Manager  
2019 National Energy Codes Conference  
May 30, 2019



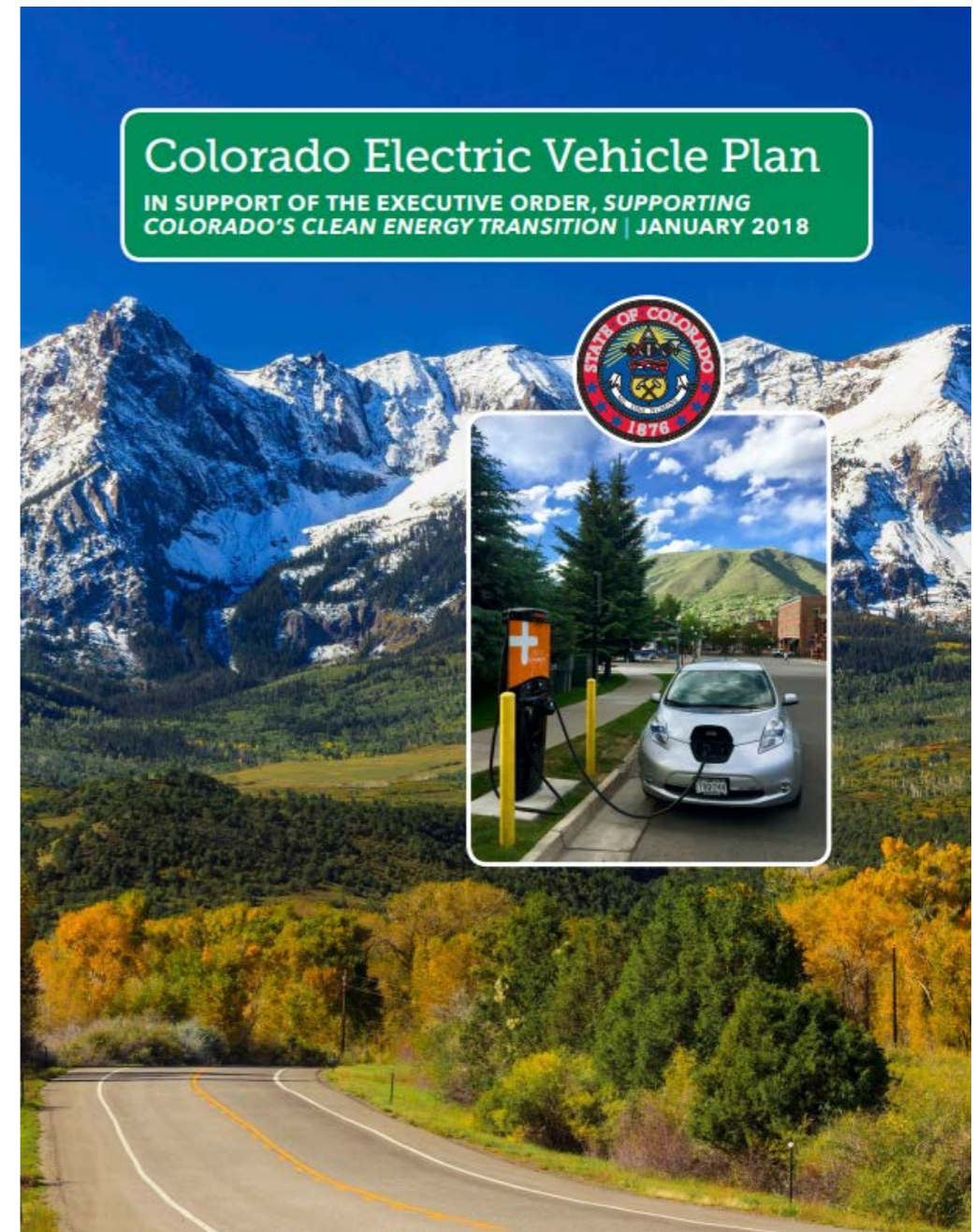
**COLORADO**  
Energy Office

# Colorado Electric Vehicle Plan Station Needs

COLORADO EV STOCK GROWTH TO 2030 BY SCENARIO

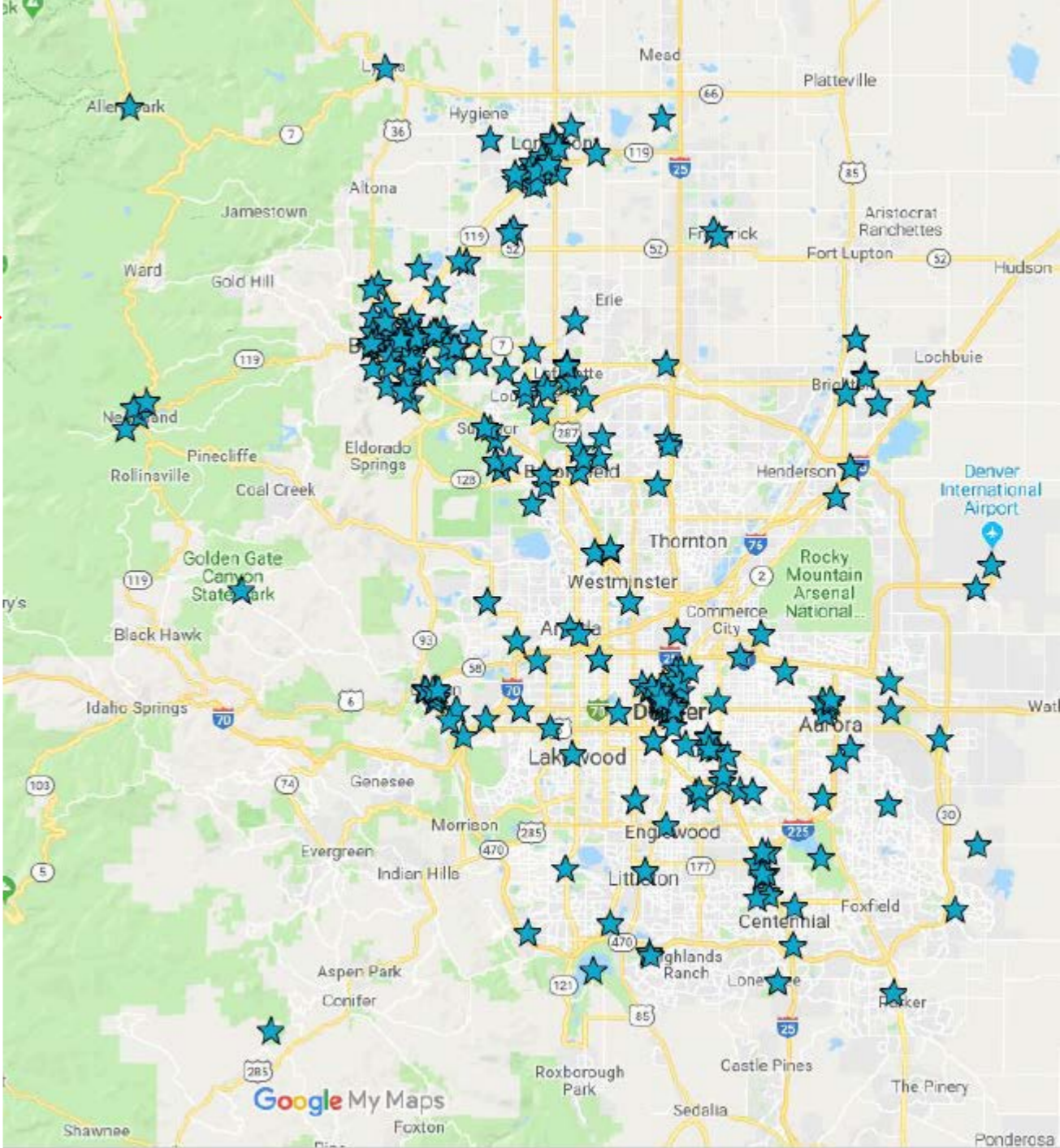
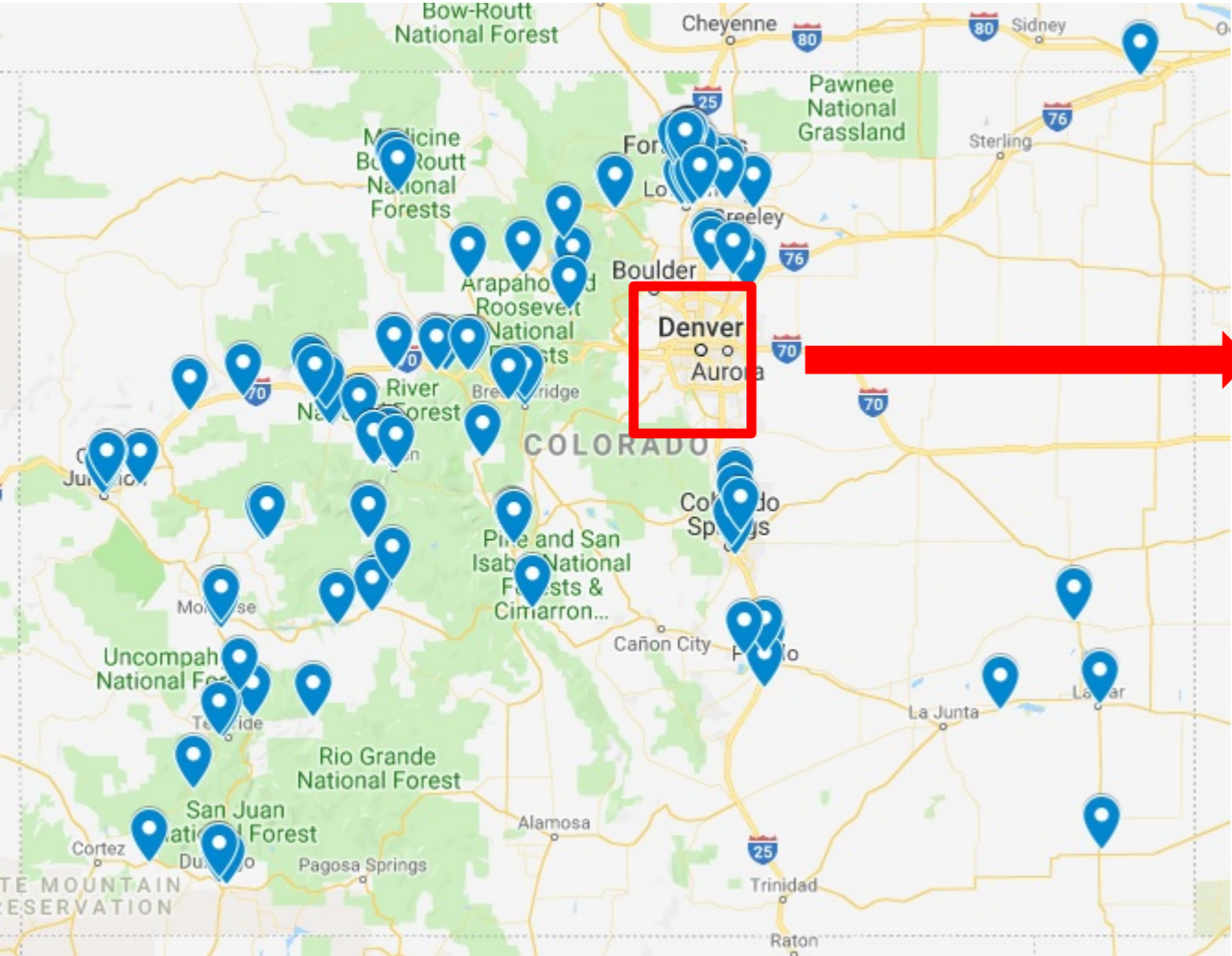


- Medium Scenario: 204 stations (817 fast-charging ports)
- High Scenario: 632 stations (2,530 fast-charging ports)





# Charge Ahead Colorado



# Charge Ahead Colorado

- Eligible applicants include local governments, school districts, State agencies, and non-profits.
- Apartment/condo complexes and private businesses are also eligible.

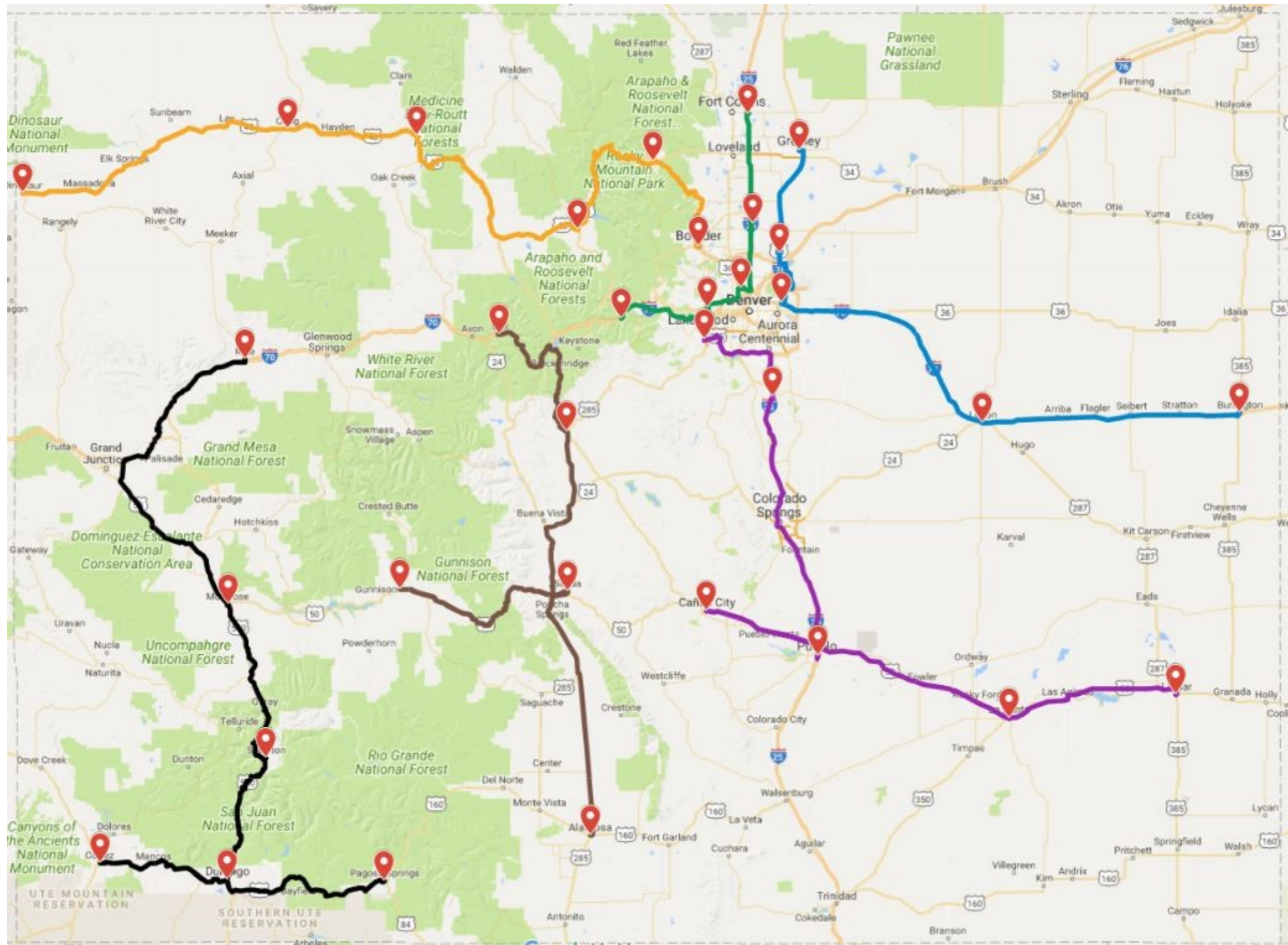
## Charge Ahead Colorado

Funding Source	RAQC			CEO	
	Federal Highway Administration - CMAQ and Volkswagen settlement				EV Fund and Volkswagen settlement
Geographic Area	7 County Denver Metro Area			Outside the 7 County Denver Metro Area	
Eligible Equipment	Level 2, DC fast-chargers, Electric Vehicles			Level 2 and DC fast-chargers	
Funding Level	Level 2	DC Fast-Chargers	EV	Level 2	DC Fast-Chargers
80% up to:	\$9,000	\$30,000	\$8,260	\$9,000	\$30,000



# Electrifying Our Corridors

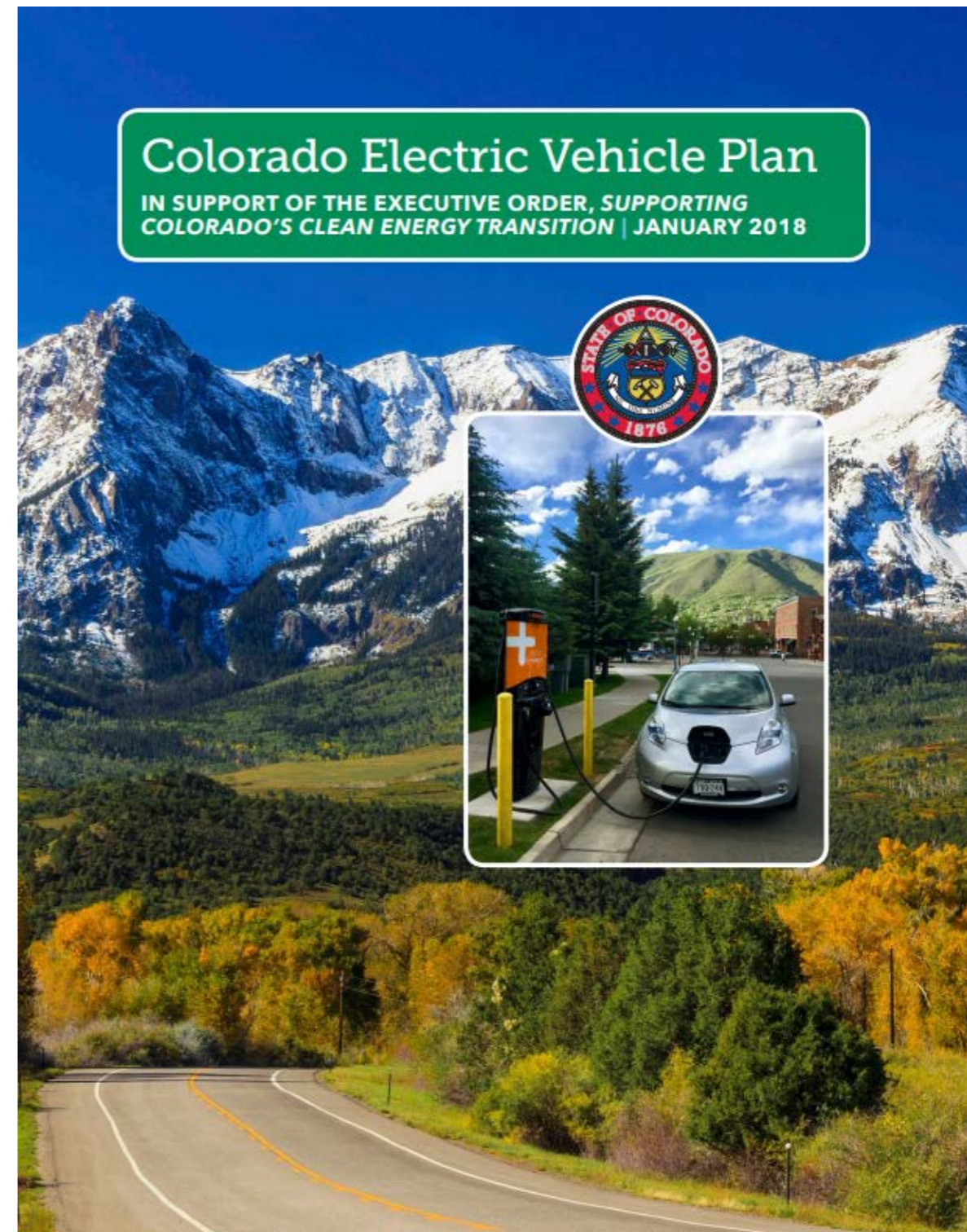
Locations for fast-charging infrastructure



# EV Plan: Building Codes

**Goal #4:** Develop strategies and partnerships that prepare property owners for future investments in EV charging infrastructure and electrify challenging facility types.

- **Strategy 1:** Increase the local adoption of building, parking, and zoning codes that accommodate and support EV charging.
- CEO will integrate EV-readiness building code amendments for commercial and residential buildings into its energy code training and technical assistance for interested local jurisdictions.



# City of Denver Building Code Updates

- Colorado Energy Office and Regional Air Quality Council have signed on as Co-Proposers for:
- R404 - Requires residential buildings to include infrastructure necessary to add a minimum portion of EV charging to on-site parking.
- C405 - Requires that buildings include infrastructure necessary to add a minimum portion of EV charging to on-site parking.





# Denver EV Code Proposals

Table R404.2.2.

	Number of <i>EV Ready Spaces</i>	Number of <i>EV Capable Spaces</i>	Number of <i>EVSE Installed Spaces</i>
1 space	1	None	None
2 to 9 spaces	2	Remainder of spaces	None
10 or more spaces	15% of spaces	Remainder of spaces	5% of spaces

Table C405.10.2.

	Number of <i>EV Ready Spaces</i>	Number of <i>EV Capable Spaces</i>	Number of <i>EVSE Installed Spaces</i>
1 space	1	None	None
2 to 9 spaces	2	Remainder of spaces	None
10 or more spaces	10% of spaces	10% of spaces	5% of spaces

# 2021 IECC Commercial Code Proposal

**TABLE C405.10.1.**  
***EV READY SPACE AND EV CAPABLE SPACE REQUIREMENTS***

<b><u>Total Number of Parking Spaces</u></b>	<b><u>Minimum number of <i>EV Ready Spaces</i></u></b>	<b><u>Minimum number of <i>EV Capable Spaces</i></u></b>
<b>1</b>	<b>1</b>	<b>=</b>
<b>2 – 10</b>	<b>2</b>	<b>=</b>
<b>11 – 15</b>	<b>2</b>	<b>3</b>
<b>16 – 19</b>	<b>2</b>	<b>4</b>
<b>21 - 25</b>	<b>2</b>	<b>5</b>
<b>26+</b>	<b>2</b>	<b>20% of total parking spaces</b>



*Questions?*



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