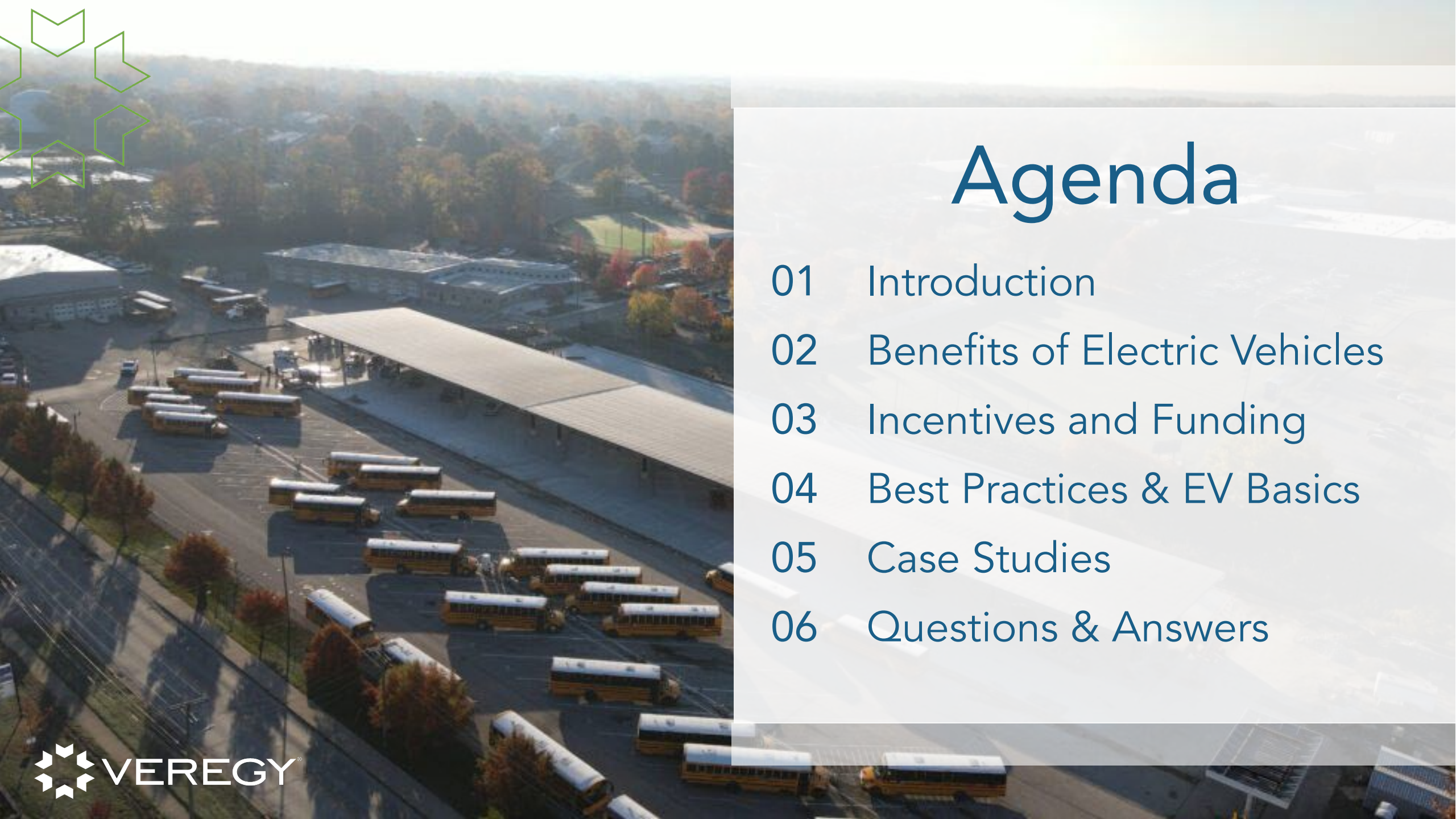
VEREGY

Roadmap to Electric Vehicle Adoption in Your Community

April 24, 2025



Agenda

01 Introduction

02 Benefits of Electric Vehicles

03 Incentives and Funding

04 Best Practices & EV Basics

05 Case Studies

06 Questions & Answers

VEREGY®

Veregy Colorado EV Subject Matter Expert

- Scott Wisner - Director of Vehicle Electrification Solutions.
- 30+ years of public transit, fleet, facilities management and EV infrastructure experience.
- Responsible for assisting customers to develop cost-effective and scalable infrastructure solutions for battery electric fleets and public EV charging.

WHO WE ARE

"Veregy is an award-winning, NAESCO-Accredited, Energy Services Company (ESCO) focusing on accelerating and simplifying the Energy Transition. We provide turnkey engineering and construction services designed to reduce our clients' energy and operating costs through the implementation of energy efficiency and infrastructure upgrades, smart building technology, fleet EV infrastructure, clean energy generation, and sustainability."

VEREGY

Serving All of Colorado

33YRS Industry	$2.2 BIL Energy Saving	1,000s Buildings	550+ Veregy	15BIL kWhs of	30 BIL Gallons	20BIL Carbon
Dioxide						

Benefits of a Zero Emission Fleet

Significant reduction of unhealthy particulate matter and GHG emissions.

Cost to charge a ZEV is 60% - 80% cheaper than ICE counterpart (energy.gov/maps/egallon).

Average cost per mile to maintain a ZEV is 40% - 60% less expensive than diesel counterpart (energy.gov).

Operational savings range from $1K to $8K per year per vehicle.

Federal or state funds provide excellent way to modernize fleet.

Fossil Fuel Vs. Electric Lifecycle Analysis

Electric Vs. ICE Cost Summary Comparison						
Q ty.	**Vehicle Class**	**Cost Variance Per Unit**	**Total Cost Variance**	**IRA Tax Credit Per Unit**	**IRA Tax Credit Total**	**Total Cost Variance**
3	Compact Passenger Car	$ 4,995	$ 14,985	$ 7,500	$ 22,500	$ (7,515)
22	Mid-Size SUV	$ 12,344	$ 271,568	$ 7,500	$ 165,000	$ 106,568
12	Light Duty Truck	$ 11,480	$ 137,760	$ 7,500	$ 90,000	$ 47,760
7	Cargo Van	$ 6,625	$ 46,375	$ 7,500	$ 52,500	$ (6,125)
Total Cost Variance For Purchasing EVs			$ 470,688		$ 330,000	$ 140,688
Total Fuel and Maintenance Savings						$ 429,991
Net Savings For Converting 44 Fleet Vehicles to Electric						**$ 289,303**

CO2 Emission Savings (EV vs. ICE)

CO2 Emission Savings Summary - EV vs. ICE Vehicles							
Make & Model	Average Annual Mileage	Average Annual Gallons	Avg. Annual Equivalent kWh	Annual lbs CO2 Emissions - Gasoline Vehicles	Annual lbs CO2 Emissions - Electric Vehicles	Reduction - Annual lbs CO2 Emissions	Quantity of Vehicles
Light Duty Pickup							
Ford F150 - Gasoline	5,910	296	0	5,724	-		
Ford F150 Lightning - EV	5,910	76	2,896	-	2,852		
Amount of CO2 Reduction Per Vehicle for Converting This Vehicle Type to EV:						2,871	
Total Annual CO2 Reduction for Converting 16 Vehicles to EV:						34,456	12
Passenger Sedan							
Chevy Malibu - Gasoline	5,910	219	0	4,240	-		
Nissan Leaf - EV	5,910	45	1,832	-	1,805		
Amount of CO2 Reduction Per Vehicle for Converting This Vehicle Type to EV:						2,435	
Total Annual CO2 Reduction for Converting 3 Vehicles to EV:						7,306	3
Mid-Size SUV							
Chevy Equinox - Gasoline	5,910	227	0	4,403	-		
Chevy Equinox - EV	5,910	55	1,832	-	1,805		
Amount of CO2 Reduction Per Vehicle for Converting This Vehicle Type to EV:						2,598	
Total Annual CO2 Reduction for Converting 15 Vehicles to EV:						38,975	15
Mini Van							
Dodge Caravan - Gasoline	5,910	348	0	6,734	-		
Chevy Equinox - EV	5,910	55	1,832	-	1,805		
Amount of CO2 Reduction Per Vehicle for Converting This Vehicle Type to EV:						4,929	
Total Annual CO2 Reduction for Converting 7 Vehicles to EV:						34,505	7
Cargo Van							
Ford Transit 350 - Gasoline	5,910	348	0	6,734	-		
Ford E Transit Cargo - EV	5,910	99	3,310	-	3,260		
Amount of CO2 Reduction Per Vehicle for Converting This Vehicle Type to EV:						3,474	
Total Annual CO2 Reduction for Converting 7 Vehicles to EV:						24,318	7
Totals CO2 Annual Emissions Reductions						139,560	

Colorado EV Infrastructure Funding Incentives

Colorado Energy Office:

- Charge Ahead Colorado provides grant funding to businesses, multifamily housing, and public entities for community-based Level 2 and DC fast-charging.
  - Up to $250,000 per applicant per round.
  - Program opens in Jan, May, and Sept.

- EV Fast Charging Corridors
  - Provides funding for up to 34 DC fast-charging sites across the state.

- EV Fast Charging Plazas
  - Provides incentives for banks of DC fast chargers.

- Stackable with other federal incentives.

COLORADO
Department of Public Health & Environment

Colorado ZEV Funding Incentives

Clean Transit Enterprise

- Supports public transit electrification efforts, facility upgrades, fleet motor vehicle replacement, & EV charging and fueling infrastructure.

Fleet-ZERO EV Charging Grant Program

- Provides funding for EV charging to support light, medium, and heavy-duty EV fleets.
  - Up to $50,000 per submission for eligible entities.

Office of Innovative Mobility

- Mobility Services' Transportation Demand Management (TDM) Grants:
  - TMO Seed Funding
  - TDM Innovation Grant

COLORADO
Department of Public Health & Environment

Colorado ZEV Funding Incentives

Clean Fleet Enterprise Program

- Clean Fleet Vehicle and Technology program supports new fleet vehicles, vehicle conversions, and clean fleet technology.

Base new vehicle incentives (per vehicle): Battery Electric Vehicle/Plug-In Hybrid Electric Vehicle/Fuel Cell Electric Vehicle

Gross vehicle weight rating	Vehicle class	Incentive amount
10,001 to 14,000 lbs	Class 3	$30,000
14,001 to 16,000 lbs	Class 4	$45,000
16,001 to 19,500 lbs	Class 5	$95,000
19,501 to 26,000 lbs	Class 6	$140,000
26,001 to 33,000 lbs	Class 7	$185,000
33,001 + lbs	Class 8	$275,000

Colorado ZEV Funding Incentives

Colorado Electric School Bus Grant Program & Clean Fleet Vehicle & Technology Grant Programs:

- Rolling Grant - multiple cycles.
- $65M in funding from state legislature.
- $375,000 per vehicle to school districts to purchase new battery powered buses.
- $8,000 for each light-duty fleet vehicle.
- $11,000 rebate for dual port, 19-49kW chargers.
- $37,000 rebate for single port; $52,000 dual port, 50-99kW chargers.
- Sign up on https://cdphe.colorado.gov/electric-school-buses to receive updates on the next funding opportunity.

COLORADO
Department of Public Health & Environment

Colorado Utility Infrastructure Funding Incentives

Certain utility companies throughout Colorado offer rebates for EV chargers or special charging rates. Check with your local utility to see what programs they may offer.

Federal Funding Incentives

U.S. Department of Transportation

Federal Highway Administration EV Programs:

National Electric Vehicle Infrastructure (NEVI)

- $2.5B dedicated for EV infrastructure along designated alternative fuel corridors (NEVI).

Charging and Fueling Infrastructure (CFI)

- $2.5B dedicated for EV infrastructure in communities.
- Separate grant programs open twice a year.
- Projects range from $1M to $15M per award.

Inflation Reduction Act Investment Tax Credits:

- Direct pay tax credit available to non-taxable entities that purchase zero emission vehicles.
- $7,500 for vehicles with GVWR of 14,000 lbs. or less.
- $40,000 for vehicles with GVWR over 14,000 lbs.
- $100,000 tax credits available for infrastructure in low-income areas.

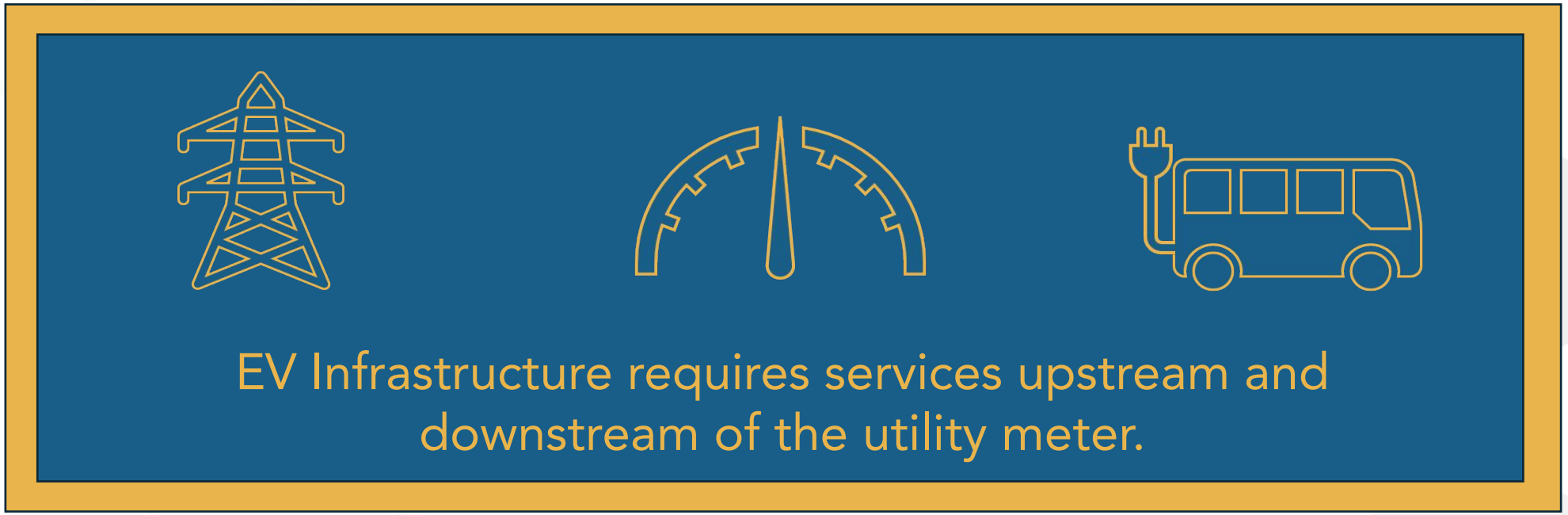
Current Status of Federal Funding Incentives

Executive Order – Unleashing American Energy
frozen all EV infrastructure funding programs for 90 days. Long-term availability of these funds are in jeopardy.

Best Practices For Implementing EV Projects

- Research vehicle purchase options from your local fleet resellers.
- Work with an EV infrastructure and energy expert to develop a fleet and charging infrastructure transition plan.
- Meet with your local utility to understand power availability at potential EV charging sites.
- Engage with your City Council or County Commissioner members to gain support to electrify your fleet and provide EV charging to the public.
- Include local funding needs in upcoming budgets or bond initiatives.

EV Infrastructure Best Practice



Charging infrastructure is more than just a charger. It involves planning, engineering, funding, fleet analysis, and a complete picture of the zero emissions eco-system.

EV Infrastructure Best Practice

- High demand charges can offset fuel and operational savings, so providing an energy and load management strategy is critical to the project's success.
- Pairing solar canopies and battery storage with EV infrastructure projects can provide viable savings and help pay for these technologies over time. Covering fleet vehicles with solar can provide energy savings and protect the assets from inclement weather.
- Municipalities must determine their needs, costs, feasibility, energy usage, and potential lifecycle savings to determine the proper EV roadmap for their community.

Infrastructure Planning 101 - EV Master Plan Tasks

Work with EV Infrastructure and Energy Expert to develop fleet and charging infrastructure transition plan.

- ✔ Operations & Fleet Duty Cycle Analysis
- ✔ Infrastructure & Energy Assessment
- ✔ Identification of Potential Funding Sources
- ✔ Fleet Replacement Goals & Timelines
- ✔ Carbon Reduction Estimates
- ✔ Infrastructure & Charging Designs
- ✔ Cost Estimates & Lifecycle Calculations
- ✔ Funding and Incentives Support and Applications

Infrastructure Planning 101 - Fleet Analysis

- ✔ Analysis of operations & duty cycles.
- ✔ Develop a 10-year fleet transition plan that aligns with the normal replacement cycle of fleet vehicles.
- ✔ Create a lifecycle cost comparison analysis to establish an expected return on investment.
- ✔ Implement charging infrastructure in a phased approach to align with the arrival of new vehicles.
- ✔ Focus fleet transition plan on vehicles that have zero emission models available now.
  - ✔ Sedans
  - ✔ Light duty trucks
  - ✔ SUVs
  - ✔ Light duty cargo vans

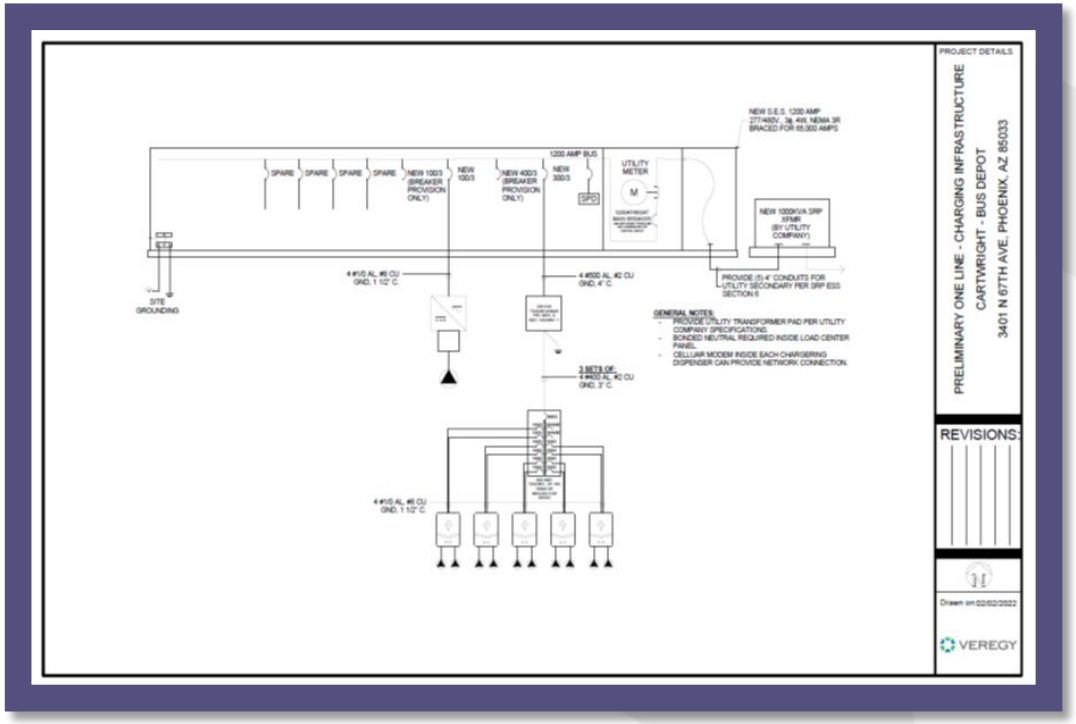
- ✔ Duty cycle analysis should target vehicles that travel less than 200 miles per day.
- ✔ Special duty vehicles (heavy duty trucks, snowplows, utility vehicles, etc.) should be targeted in later phases.

Infrastructure Planning 101 - Site Selection

- ✔ Sites should have parking dwell times of 1 hour or more to ensure maximum utilization.
- ✔ Sites should have adequate parking to assign dedicated spaces for EV charging.
- ✔ Sites need adequate power and excess electrical capacity within power cabinets.
- ✔ Sites with amenities (restrooms, vending/food services, etc.) are ideal locations.
- ✔ Common charging sites include:
  - ✔ Parks and recreation buildings
  - ✔ Libraries
  - ✔ Golf Courses
  - ✔ City or County Buildings
  - ✔ City or County owned parking garages
  - ✔ Regional or municipal airports

Infrastructure Planning 101- Design & Engineering

- Start infrastructure phase before you order vehicles:
  - Allow 12 months from contract award to completion.
- Steps include design, geotechnical reviews, bids, permits, utility coordination, construction, and commissioning.
- Make sure your plan includes operator and mechanic training.
- Completion of project should align with arrival of first ZEV.



Electrical One Line Diagram for chargers and any solar or microgrid components from PE stamped electrical engineer.

Infrastructure Planning 101 – Electrical Equipment

Transformer
Switchgear
Main Distribution Panel

EV Charger
Bollards

Solar Canopy
Battery Storage

Infrastructure Planning 101 – Level 2 Chargers

Level 2 (AC) Chargers – Fleet

$750 to $3,000 MSRP

- Single or Dual port dispensers
- 10kW to 12kW charging loads
- Each port requires a 50A to 100A branch circuit
- 208V/240V Single Phase AC
- 480V service requires transformer to step down power
- 23 to 28 miles of range per charge hour

Level 2 (AC) Chargers – Public, Workplace & Fleet

$4,000 to $10,000 MSRP

- Single or dual port dispensers
- 7.2.5kW to 19.2kW charging loads
- Each port requires 40A to 100A branch circuit
- 208V/240V Single Phase AC
- 16 to 45 miles of range per charge hour
- Customers are charged by the minute or by kWh, depending on market rate conditions

Infrastructure Planning 101 – Level 3 Chargers

Level 3 (DC) Chargers – Fleet & Public

$40,000 to $100,000 MSRP

- Standalone Units
- Single or dual port dispensers
- 50kW to 125kW charging loads
- Each port requires a 100A to 125A branch circuit
- 277V/480V three phase service required
- 50kW charger can add 115 miles of range per charge hour
- 80kW charger can add 185 miles of range per hour
  - 370 miles of range when paired with an identical charger
- 125kW charger can add 288 miles of range per hour
- Customers are charged by the minute, by kWh, or a combination of both depending on market rate conditions
  - National average is $0.45 per kWh
- Level 3 charging can generate 30% to 50% more revenue than Level 2 charging, depending on the market.

Infrastructure Planning 101 – Level 3 Chargers

Level 3 (DC) Chargers – Fleet & Public

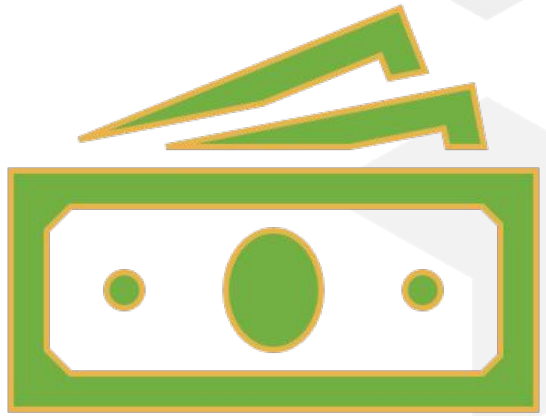
$130,000 to $250,000 MSRP

- Power Cabinet Units
- Single or dual port dispensers
- 150kW to 325kW charging loads
- Each port requires a 275A to 350A circuit
- 277V/480V three phase service required
- 150kW charger can add 173 miles of range in 30 minutes
- 250kW charger can add 288 miles of range in 30 minutes

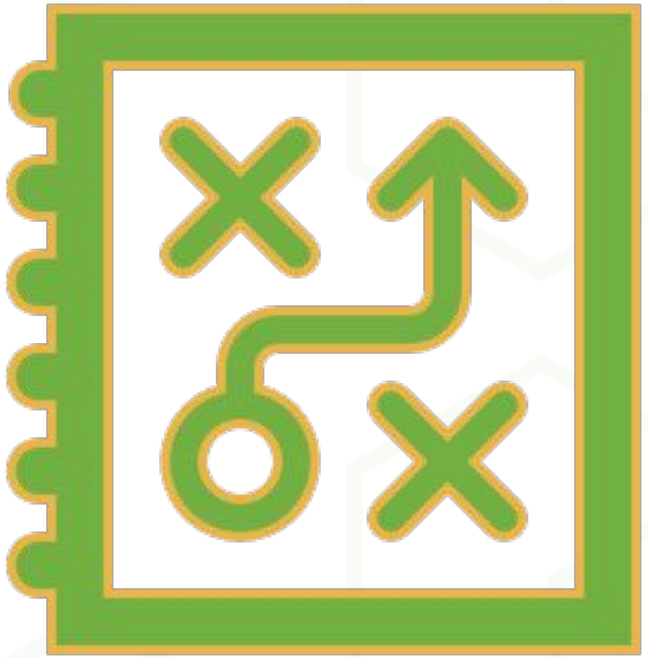
Infrastructure Costs

Rough Order of Magnitude to construct a 10-bay Charging Hub ($600,000)

- Electrical Equipment Upgrades ($425,000):
  - Switchgear & Electrical Panel
  - Transformer(s)
  - Electrical conduit, wire, connectors, and charging installation
- Concrete pads and trenching/underground boring ($50,000)
- Chargers ($100,000):
  - 5 Dual Port Level 2 chargers
  - 1 single port DC Fast charger
- Miscellaneous Fees ($25,000):
  - Engineer/design
  - Underground/Geotechnical Survey
  - Permits



Futureproof - Plan for the Long Term

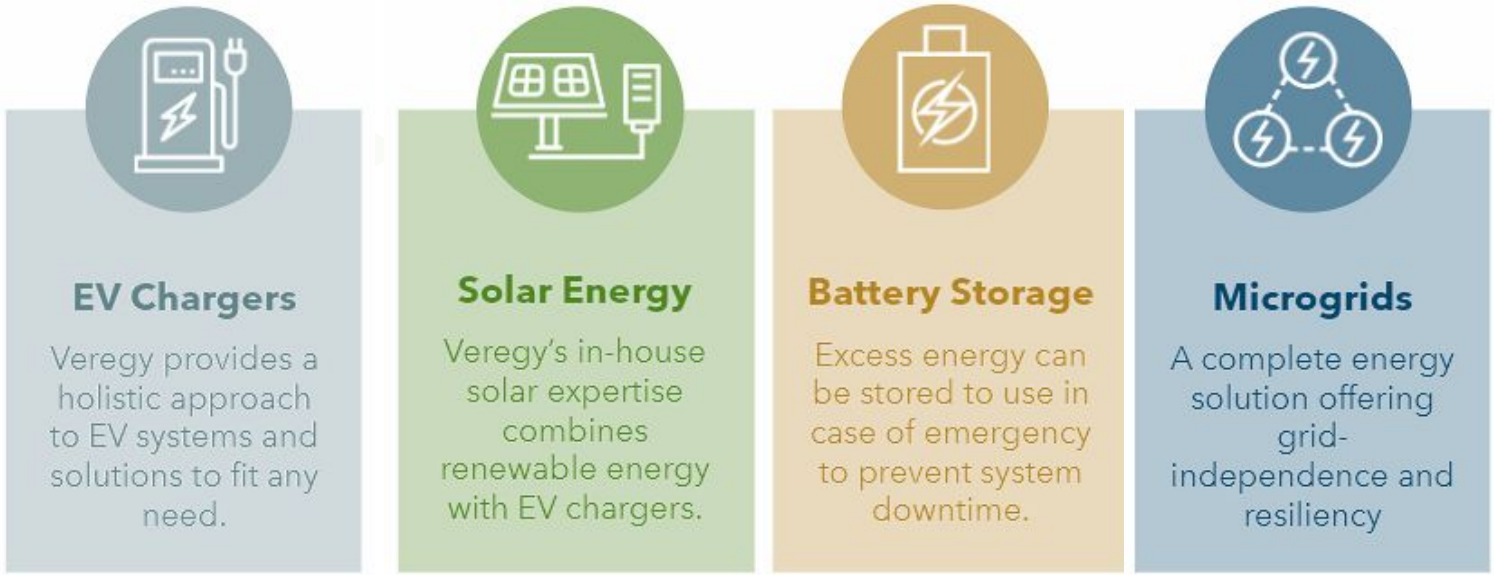


- Design and build your electrical system for long term needs. It will save you time, money and result in fewer disruptions to your operation in the long run.
- Install conduit and upsize electrical gear if you are modifying existing buildings and parking lots to accommodate EV charging in the future.
- Analyze solar as an energy efficiency option at EV sites and utilize the savings to off-set the cot of EV infrastructure over a 15-to-20-year period.

Electric Vehicle Charging Solutions

- Facility Assessment and EV Fleet Transition Implementation Planning
- Grant Facilitation
- Permits and Utility Coordination

- Electrical Infrastructure/Charger Installation
- Renewable Energy Optimization
- Software Integrations
- O&M Services



CASE STUDIES

"Working with Veregy was a great experience for our team. they approached our project in a collaborative way that allowed us to explore some creative solutions that may not have been considered had we not been able to build that relationship early. oscar and the Veregy team worked hard to understand our needs and get us thinking about different approaches – and then held our hands along the way!"

- Scott Trainor,
- City Manager, City of Fountain

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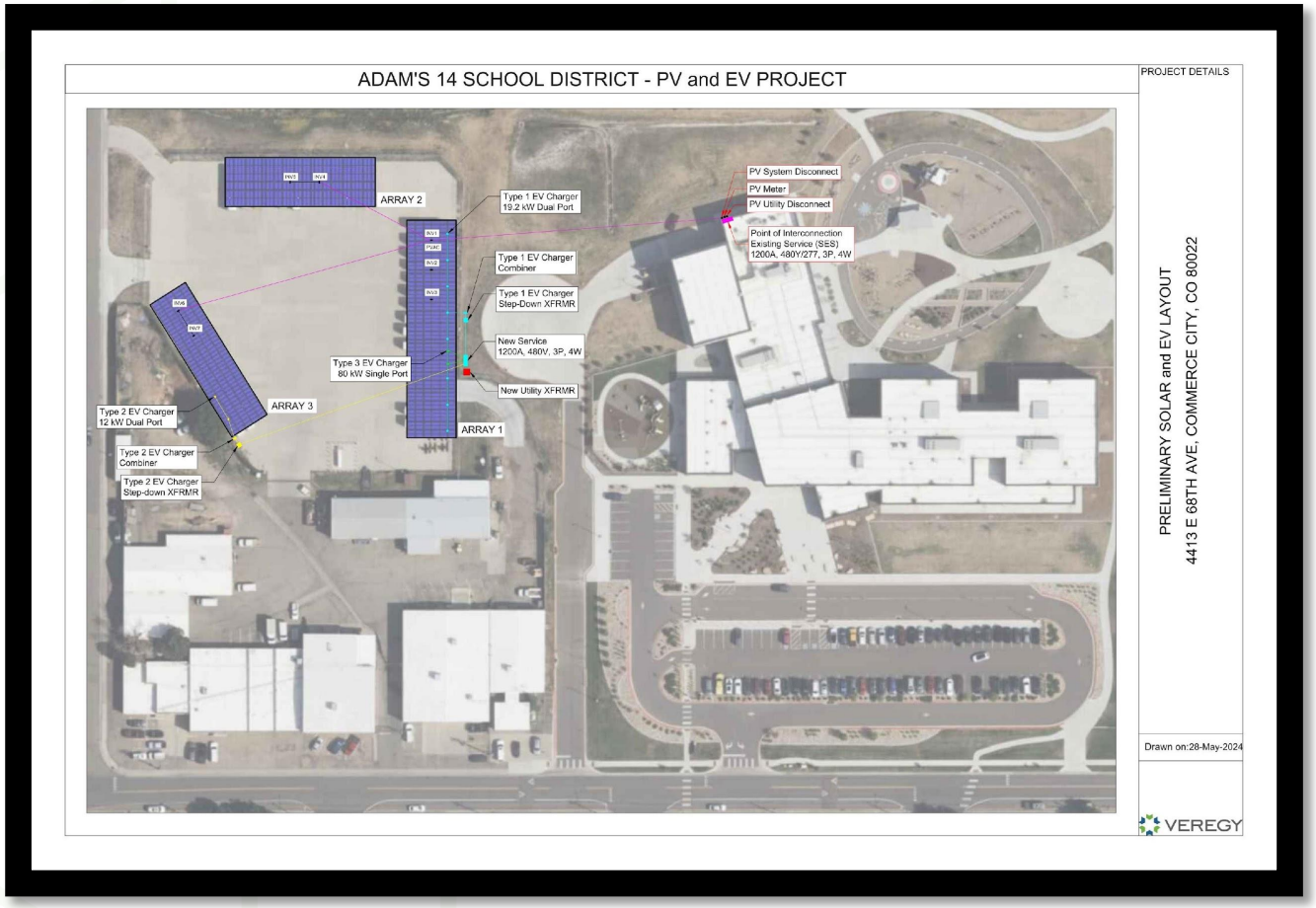
Adams 14 School District Case Study



Needs

- EV Infrastructure for 14 new buses awarded by EPA
- Cantilever covered solar parking
- Futureproof charging blocks for future buses
- Offset as much in utility costs on entire campus and to pay for the project in a budget neutral approach

Adams 14 School District
COMMERCE CITY, CO

Infrastructure Project Investment:
$3.93M

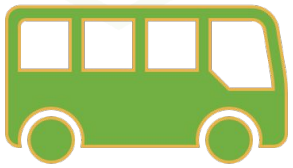
Design, Engineering, Construction

Annual Savings: $165K
Rebates: $6.24M
Lifetime Savings: $8.2M

Measures Implemented

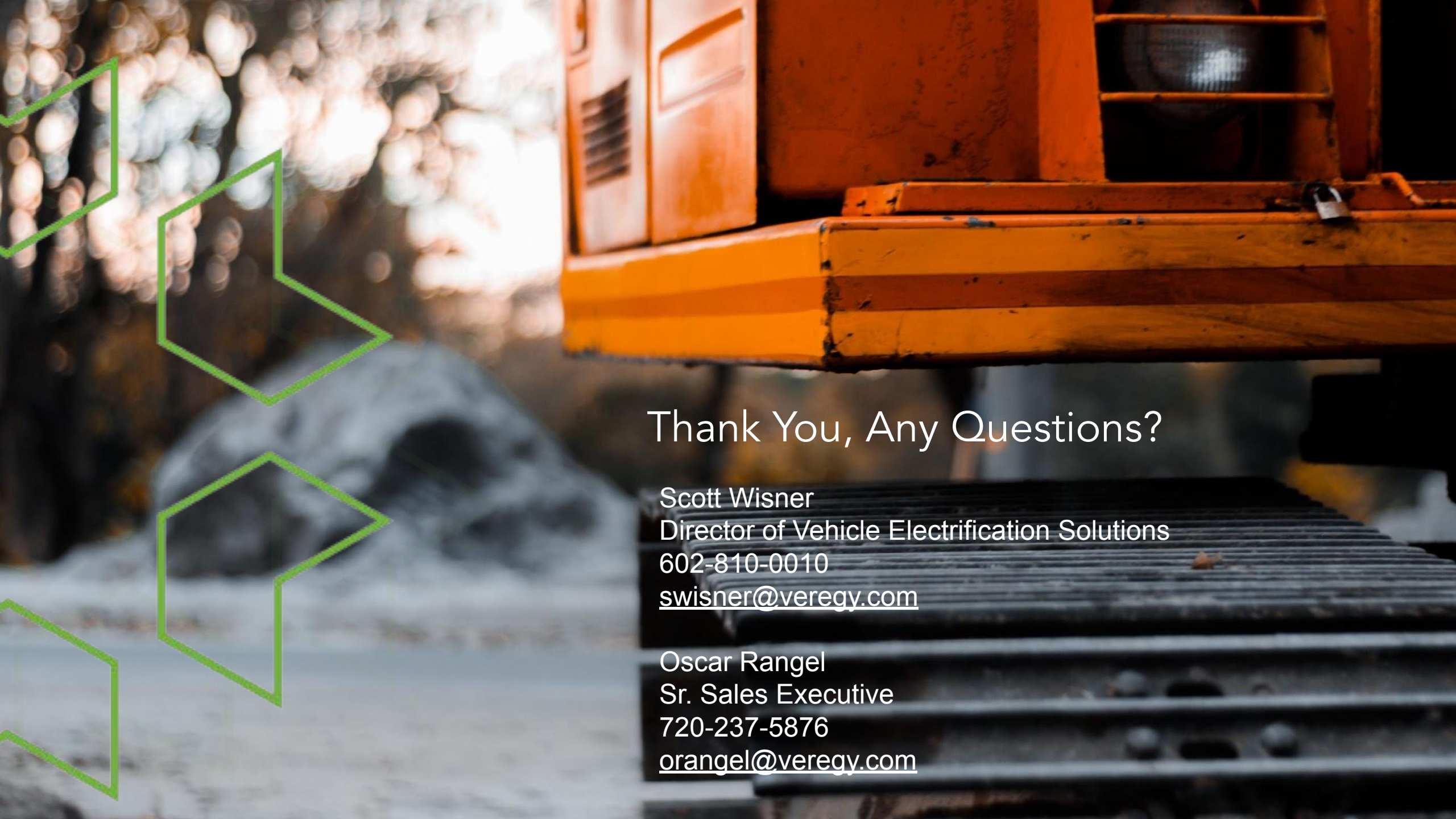
- Solar
- Solar Monitoring
- Renovations
- EV Charging

EV Roadmap Summary



- Customers that are in the process of ordering electric vehicles:
  - Work with an EV infrastructure expert to implement a turnkey EV infrastructure solution that addresses short and long-term charging needs.

- Customers that need help navigating the design, feasibility, funding and approval processes:
  - Work with an EV infrastructure expert to develop a long-term fleet & infrastructure master plan.



Thank You, Any Questions?

Scott Wisner
Director of Vehicle Electrification Solutions
602-810-0010
swisner@veregy.com

Oscar Rangel
Sr. Sales Executive
720-237-5876
orangel@veregy.com