



# Grants and Incentives for Trucks and Infrastructure



# DEPOTS Electric Truck Bootcamp Series

1. Best Practices for Utility-Fleet Relationships (April 25<sup>th</sup>) ✓
2. Grants and Incentives for the Trucks and Infrastructure (May 16<sup>th</sup>)
3. Electric Truck Developments (May 30<sup>th</sup>)
4. Faster Charging — Opportunities and Challenges at 350KW and higher (June 13<sup>th</sup>)
5. Opportunities to Extend BEV Range (June 27<sup>th</sup>)
6. Electricity Resiliency and Availability (July 11<sup>th</sup>)
7. Current and Future Regulations for Zero Emission Trucks (July 25<sup>th</sup>)
8. Managed Charging to Improve Availability, Cost and Range (August 8<sup>th</sup>)
9. Scaling Charging Infrastructure Equipment (August 22<sup>nd</sup>)
10. Electric Depot Site Planning and Construction (September 5<sup>th</sup>)

2021 Bootcamp is still available at: <https://runonless.com/electric/bootcamp-electric/>



## Update from The Run Planning...

Follow the Fleets, Drivers, OEMs, EVSEs, Utilities and more at:

RunOnLess.com and on Twitter @RunOnLess



# Today's Bootcamp Sponsor



# Quiz for Today's Session

## Completing Today's Quiz:

- Go to [runonless.com](https://runonless.com) and click back into the session
- Click 'Take Quiz' button
- Create username and password to keep track of your progress
- Spend a few minutes answering the questions and receive your 2023 RoLE - DEPOT badges



# What You Should Know

## Q&A

Submit your questions to the host using the Q&A box in the upper right-hand corner

## Recording

A recording of today's webinar will be available on [runonless.com](https://runonless.com)

## Technical Issues

Contact Stephane Babcock at [stephane.babcock@gladstein.org](mailto:stephane.babcock@gladstein.org)



# Today's Bootcamp Speakers

## Grants and Incentives for Trucks & Infrastructure



**Tom Brotherton**

*Senior Director, Market  
Acceleration*  
CALSTART



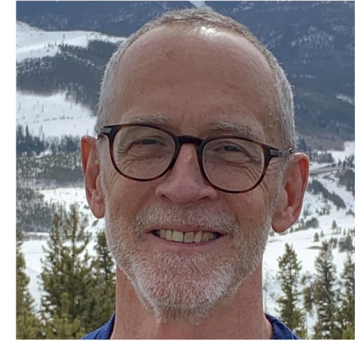
**Will Marshall**

*Program Associate, Freight  
Electrification*  
Electrification Coalition



**Paul Rosa**

*Senior Vice President,  
Procurement & Fleet Planning*  
Penske



**Sam Spofforth**

*Clean Cities Project Leader*  
National Renewable Energy  
Laboratory (NREL)



Hosted by:

**Mike Roeth**

Executive Director, NACFE





Rental  
Leasing  
Logistics

# Grants and Incentives

Why are they important? Why are they needed?

**Paul Rosa**, senior vice president of procurement and fleet planning



# PENSKE TRUCK LEASING

Penske Truck Leasing is a leading global transportation services provider, operating and maintaining more than 400,000 vehicles at thousands of locations.

Penske has been **operating alternative fuels fleets for 25+ years**, investing in maintenance, training, and facilities.



**Truck  
Rental**

**Full-Service  
Leasing**

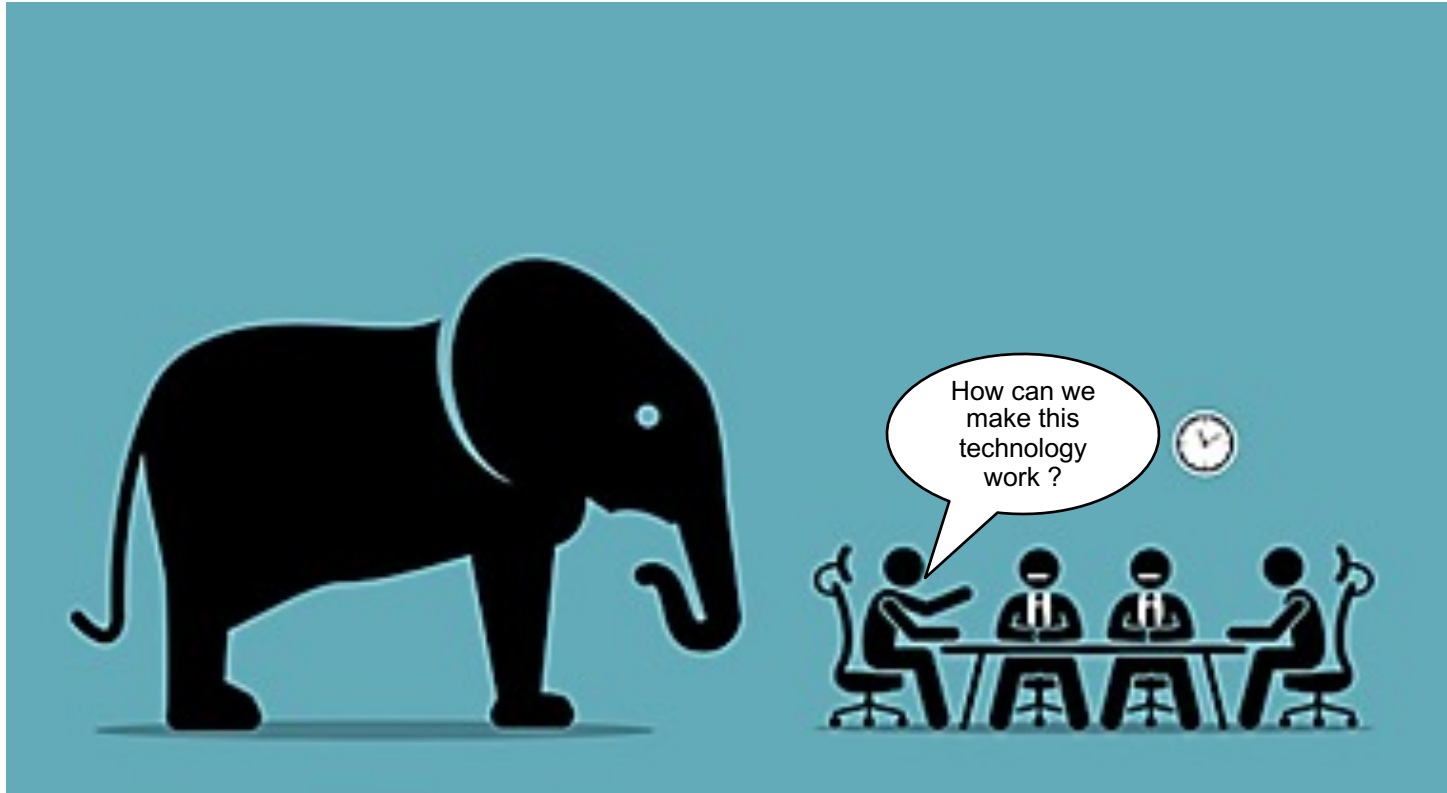
**Contract  
Maintenance**

**Used  
Trucks**

**Logistics**

We must understand the **entire** ecosystem

# WHY GRANTS AND INCENTIVES...



# WHY GRANTS AND INCENTIVES...

## BEV CONSIDERATIONS

- Increased acquisition costs
- Complementary infrastructure required
- Residuals unknown
- TCO not at parity with ICE



# WHY GRANTS AND INCENTIVES...

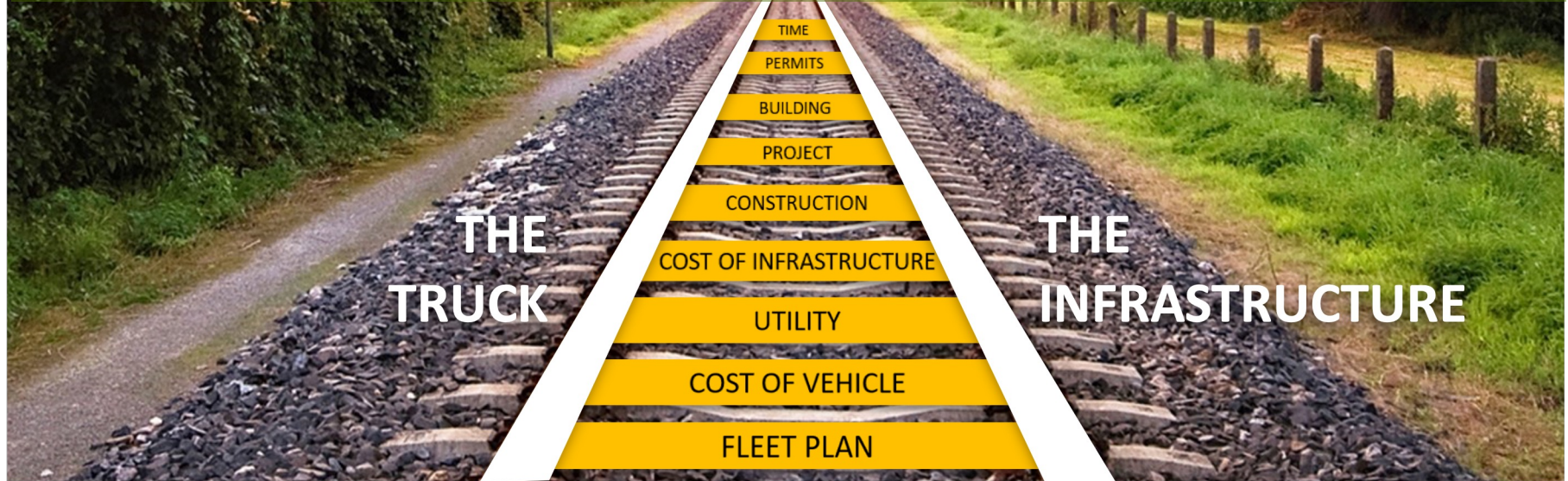
## INFRASTRUCTURE CONSIDERATIONS

- Building modifications and/ or upgrades frequently needed
- Expensive hardware (charger cabinet, etc.) and software costs
- High costs in construction (permits, breaking ground, etc.)
- Infrastructure maintenance costs often overlooked
- Unknown hardware life



# WHY INCENTIVES AND GRANTS ARE NECESSARY

- Incentives and grants:
  - Are needed for BOTH vehicle AND infrastructure
  - Helps accelerating early adoption
  - Aids in breaking barriers for electrification





Rental | Leasing | Logistics

# Truck and Infrastructure Funding Opportunities

Run on Less Electric Depot

May 16, 2023

Tom Brotherton

CALSTART



# Types of Incentives

- **Tax Credits**

- Easy to figure out, but funding comes a year later when you file taxes

- **Grants**

- More work to pull together, but more flexible

- **Vouchers**

- Point-of-purchase immediate discount



# About California HVIP

---

The California Air Resources Board (CARB), in partnership with CALSTART, launched the **Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP)** in 2009 to accelerate the adoption of cleaner, more-efficient trucks and buses.

Vouchers apply directly at time of purchase!

11,000

Clean Vehicles  
Funded

1,900

Fleets Participating

20%

Average Savings per  
Vehicle



# HVIP Eligible Vehicles

Start by selecting a vehicle type below

[Approved Dealers](#)
[Archived Vehicles](#)


ePTO



Heavy-Duty Bus



Medium-Duty Bus

\$85k - \$150k



Refuse



School Bus

\$7.5k - \$85k



Step & Panel Van

\$60k - \$120k



Straight Truck

\$120k - \$150k



Tractor



All vehicles

Class	Base \$
Class 2b	\$7,500
Class 3	\$45,000
Class 4-5	\$60,000
Class 6-7	\$85,000
Class 8	\$120,000

# Search at CaliforniaHVIP.org

# California HVIP

- **Funding available NOW**

- HVIP Standard: **\$312M** available
- Drayage Truck: **\$117M** available
- Innovative Small E-Fleet – coming summer 2023 - **\$33M**
  
- Transit: **\$111M** available
- Public School Bus Set-Aside – coming summer 2023 - **\$117M**

# Equipment Eligible for California EnerGIZE Incentives:

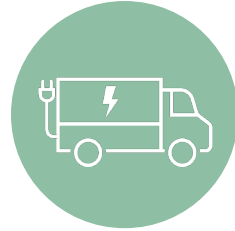
**\$183 million**



*Eligible equipment is from customer side make-ready, where it is not currently offered by utilities, to the vehicle plug/nozzle.*



## EV



- Level 2 Electric Vehicle Supply Equipment (EVSE)
- DC Fast-Charge EVSE
- Wireless Charging Infrastructure
- Charge Management Software

## Hydrogen



- Compressors
- Liquid and Gaseous Pumps
- Piping and Pipelines
- Dispenser with Hose and Nozzles
- High-Pressure Storage
- On-site Production
- Chillers

## Make Ready



- Switchgear
- Electrical Panel Upgrades
- Wiring and Conduit
- Meters

# Resources

- [www.CaliforniaHVIP.org](http://www.CaliforniaHVIP.org)
- [www.EnergIIZE.org](http://www.EnergIIZE.org)
- <https://calstart.org/voucher-incentive-programs-2023>
- <https://calstart.org/resources/#trucksresources>

Tom Brotherton

CALSTART

tbrotherton@calstart.org

# Federal Funding & the EV Funding Finder

Will Marshall, Freight Electrification Program Associate  
May 16, 2023



Electrification  
Coalition

# About the Electrification Coalition

The **Electrification Coalition** is a nonpartisan, nonprofit organization dedicated to driving the policies and actions that will electrify all modes of transportation to protect economic and national security, public health, and American jobs.



# Bipartisan Infrastructure Law & Inflation Reduction Act

- Prior to IRA and BIL, the federal government invested a total of **\$3.32 billion** in transportation electrification
- Other sources of investments
  - VW Settlement – nearly \$5 billion in for ZEV-related investments
  - Utility Investment – more than \$3.47 billion
- The BIL and IRA made historic federal investments of more than **\$79.5 billion** in transportation electrification
  - **BIL:** \$32.5 billion eligible to support electric vehicles, plus \$10.5 billion for grid upgrades and battery development.
  - **IRA:** \$47 billion eligible to support vehicles (not including tax credits or loan programs)
- 30x increase in federal TE investment (not including tax credits)



# EV Funding Finder

The EV Funding Finder is a user-friendly tool to identify federal transportation electrification funding opportunities.

The EC created the EV Funding Finder to:

1. Answer the question, "Where is the money and how do I get it?"
2. Capitalize on unprecedented investment in transportation electrification from the federal government
3. Support efficient, effective, and equitable deployment of funds to reach ambitious goals

The EV Funding Finder:

1. Lowers the barrier to entry to identifying and accessing federal funding opportunities for transportation electrification
2. Shows how funding opportunities can be stacked and which alternative routes can be utilized to fund projects
3. Provides case studies that show potential use of funds










# EV Funding Finder

A user-friendly tool to identify federal funding opportunities

The future of transportation is electric, given the massive benefits everyday Americans, businesses, local governments, cities and states stand to gain. Not only does electric transportation save drivers money through stably priced fuel, but it also benefits air quality, public health, and the job market. With unprecedented investment at the federal level to aid in the electric transportation transition, businesses, local governments, cities, and states have an exciting opportunity to participate in this transition. But they must work together.

All of the funding available can make identifying and applying for the proper funding streams daunting. This tool helps eligible recipients sort through available federal funds for transportation electrification and helps recipients understand how investments can be matched. It can also help users identify where technical assistance is available.

Step 1: I represent a...

-  City
-  Rural Area
-  School
-  Freight/ Shippers and Carriers
-  EV Advocate or Community Organization
-  Business
-  Non-Profit Transportation Group
-  Individual
-  State

Step 2

## Select Funding Scenarios

- Purchase or Lease a Light-Duty Vehicle**  
Funds to purchase or lease a light-duty vehicle (ex: passenger car)
- Purchase or Lease a Medium- or Heavy-Duty Vehicle**  
Funds to purchase or lease a medium- or heavy-duty vehicle (ex: school bus)
- Purchase Light-Duty Charging Infrastructure**  
EV charging infrastructure incentives for light-duty vehicles
- Purchase Medium- or Heavy-Duty Charging Infrastructure**  
EV charging infrastructure for medium- and heavy-duty vehicles
- Access Technical Assistance**  
Funds to provide technical expertise to access EVs or EV infrastructure
- Grid Upgrades**  
Funding for updating and preparing the grid for at-scale EV adoption
- Access Support Planning**  
Funding to ensure adequate planning of EV infrastructure
- Electrify Ports**  
Funding for shipping and transportation companies to electrify port transit

## EV Funding Finder Results

Freight-shippers / Purchase a medium or heavy duty vehicle, Purchase a medium or heavy duty EVSE

### Case Study: Freight company Mustang is looking to electrify its fleet

Mustang is a leading freight company that has a massive fleet of heavy-duty trucks. Mustang is responsible for thousands of miles each day and associated carbon emissions. Mustang works regularly with ports across the nation to ship its goods across seas. It should explore the following funding opportunities:

- **Commercial Clean Vehicle Tax Credit (45W):** As a commercial entity, Mustang can qualify for a tax credit of up to 30% of the cost of an electric heavy-duty truck.
- **Carbon Reduction Program:** Mustang can work with a state to access funds from the Carbon Reduction Program to purchase electric vehicles and equipment.
- **Port Infrastructure Development Program:** Mustang can work with an associated port to access funds from the Port Infrastructure Development Program. Together, Mustang and a port can gain funds for electrification planning, technical assistance, and grid upgrades.

*Please note that the case study above is imaginary and that funding pathways will be updated by the EC monthly. Results are comprehensive, but may not be reflective of imminent program changes. EV Funding Finder users should also be sure to inquire about state-specific incentives that could further support projects. For additional information on deadlines and RFPs, check out the [Climate Program Portal](#).*

Purchase a medium or heavy duty vehicle

<a href="#">Carbon Reduction Program</a>
<a href="#">Congestion Mitigation and Air Quality Improvement</a>
<a href="#">Clean Heavy Duty Vehicle Program</a>
<a href="#">Commercial Clean Vehicle Tax Credit (45W)</a>
<a href="#">Community Facilities Direct Loan</a>
<a href="#">Diesel Emissions Reduction Act</a>
<a href="#">Environment and Climate Justice Block Grants</a>
<a href="#">Electric or Low Emitting Ferry Pilot Program</a>
<a href="#">Federal Land Access Program</a>
<a href="#">Grants to Reduce Air Pollution at Ports</a>
<a href="#">Greenhouse Gas Reduction Fund</a>
<a href="#">Low or No Emission Vehicle Program</a>
<a href="#">Neighborhood Access and Equity Grants</a>
<a href="#">Port Infrastructure Development Program</a>
<a href="#">Rural Economic Development Grants</a>
<a href="#">Voluntary Airport Low Emissions Program</a>

To accomplish your transportation electrification project consider utilizing or applying to:

Purchase a medium or heavy duty EVSE

<a href="#">Alternative Fuel Vehicle Refueling Property Tax Credit (30C)</a>
<a href="#">Airport Zero Emission Vehicle Program</a>
<a href="#">Carbon Reduction Program</a>
<a href="#">Conservation Innovation Grants</a>
<a href="#">Community Facilities Direct Loan</a>
<a href="#">Clean Heavy Duty Vehicle Program</a>
<a href="#">Environment and Climate Justice Block Grants</a>
<a href="#">Electric or Low Emitting Ferry Pilot Program</a>
<a href="#">Federal Land Access Program</a>
<a href="#">Greenhouse Gas Reduction Fund</a>
<a href="#">Grants to Reduce Air Pollution at Ports</a>
<a href="#">Low or No Emission Vehicle Program</a>
<a href="#">National Highway Freight Program</a>
<a href="#">Neighborhood Access and Equity Grants</a>
<a href="#">Public Works and Economic Adjustment</a>
<a href="#">Port Infrastructure Development Program</a>
<a href="#">Reduction of Truck Emissions at Port Facilities</a>
<a href="#">Rebuilding American Infrastructure with Sustainability and Equity Grants</a>
<a href="#">Rural Economic Development Grants</a>
<a href="#">Surface Transportation Block Grants</a>
<a href="#">State Energy Program</a>



Thank you!

Will Marshall

Program Associate, Freight Electrification  
[wmarshall@electrificationcoalition.org](mailto:wmarshall@electrificationcoalition.org)

# Funding Application and Administration Best Practices



Sam Spofforth, Clean Cities Project Leader, National Renewable Energy Laboratory,

On Detail to U.S. DOE VTO Technology Integration Team

Roadmap 2023

May 16, 2023

**CLEAN CITIES COALITION  
NETWORK**



# Clean Cities Coalition Network

- Local
- Trusted
- Connected



## Our Work:

- Education
- Technical Support
- Project Support
- Assistance to Access Funding

# Overview

1. Preparing for Funding Opportunity
2. Application Development
3. Contracting
4. Award Performance & Administration
5. Post Award Obligations (if applicable)

# Preparing for Funding Opportunity

- Build Relationships & Prospective Partnerships
- Acquire or Update Federal Registrations
  - Grants.gov; Sam.gov
- Define Project Concept and Goals
- Build Conceptual Budget



# Application Development

- Build Application Team:
  - Team Lead, Narrative, Forms & Budget, Partner Communications / Letters of Commitment
- Follow Solicitation Exactly
  - Attend to Language: “may,” “must,” “encouraged;” Scoring Criteria
- Secure Needed Match Commitments; Budget Conservatively
- Submit Early!

# Contracting

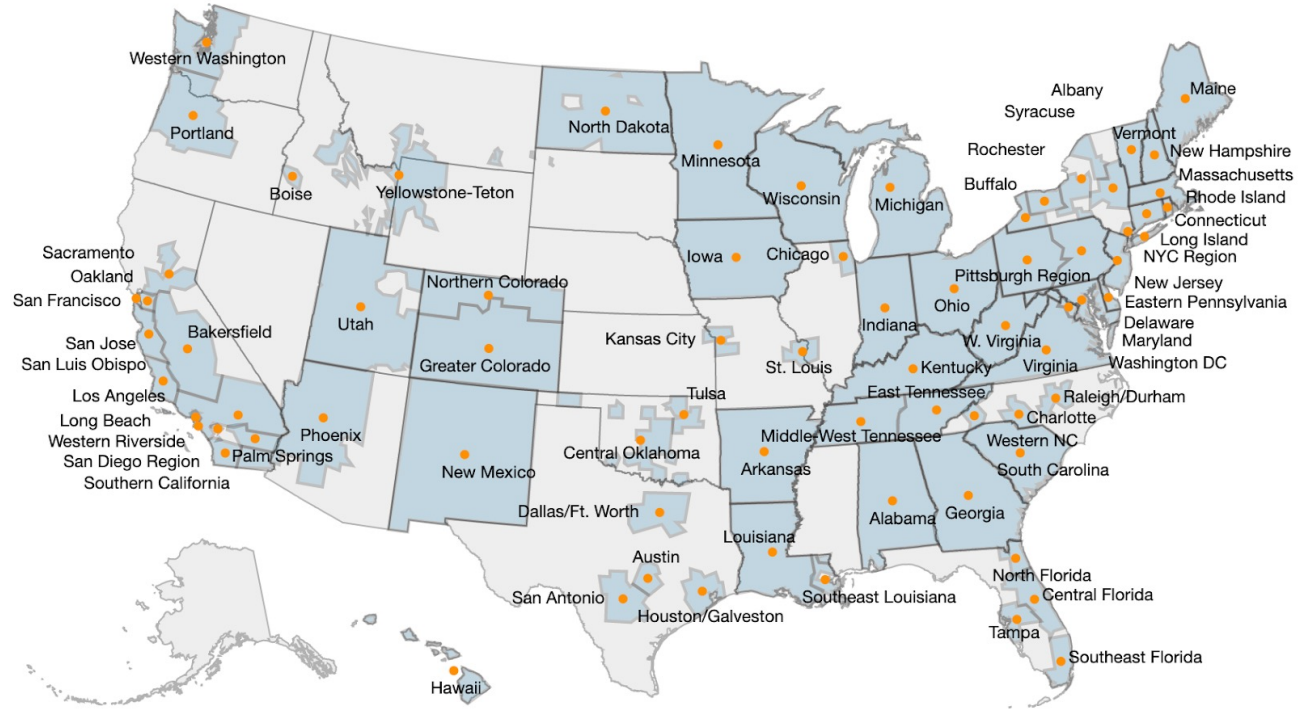
- Expect Contracting Process to Take Time...
- Statement of Project Objectives (SOPO)
- Budget (Including Cost Share)
  - Budget Enough to Administer Award
- Federal “Terms and Conditions” (TAC)
- Prime Obligations and “Flow Down” Requirements

# Performance and Administration

- Set Up Internal Systems & Procedures
- Financial
- Performance
- Cadence of Internal & External Meetings
- Work with Your Federal Project Officer
- Understand Post-Award Obligations (if any)

# 75 Unique Coalitions; Over 15,000 Combined Stakeholders:

- Statewide or Regional/Local
- Independent Non-Profits or Housed in Larger Organization
- DOE Working to Strengthen and Expand Network



[cleancities.energy.gov](http://cleancities.energy.gov)





Sam Spofforth, Clean Cities Project Leader,  
National Renewable Energy Laboratory  
DOE VTO Technology Integration Team

[Samuel.Spofforth@doe.ee.gov](mailto:Samuel.Spofforth@doe.ee.gov)

---

[cleancities.energy.gov](http://cleancities.energy.gov)

## Grants and Incentives for Trucks & Infrastructure



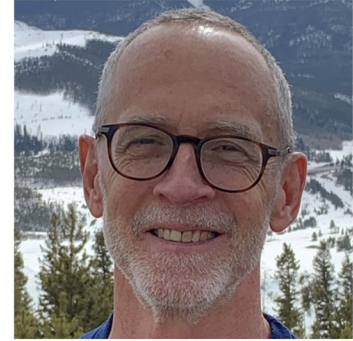
**Tom Brotherton**  
*Senior Director, Market  
Acceleration*  
CALSTART



**Will Marshall**  
*Program Associate, Freight  
Electrification*  
Electrification Coalition



**Paul Rosa**  
*Senior Vice President,  
Procurement & Fleet Planning*  
Penske



**Sam Spofforth**  
*Clean Cities Project Leader*  
National Renewable Energy  
Laboratory (NREL)



Hosted by:  
**Mike Roeth**  
Executive Director, NACFE





CCS1



CCS2



CHAdeMO



J1772



MCS or CharIN



[NACFE.org](https://www.nacfe.org)



[RunOnLess.com](https://www.RunOnLess.com)

Let's Stay Connected...  
... And charged up!



[NACFE](#) (& Spanish: [NACFE LATAM](#))



[NACFE](#)



[@NACFE\\_Freight](#) & [@RunOnLess](#)



[NACFE](#)

