Freight electrification is opening new opportunities and challenges for the trucking industry and utilities alike. The North American Council for Freight Efficiency (NACFE) and our partner organization, RMI, are uniquely positioned to help facilitate conversations between these two groups and help get North America on the road to truck electrification.

Why Utilities?
Utilities are key partners for fleets considering deploying electric vehicles, as their policies regarding physical infrastructure build-out and electricity rate design will be vital to the success of vehicle charging.

Fleets should be prepared to discuss the following with utilities:
- Long-term electrification plans, anticipated power needs, and draft site infrastructure design.
- Costs and timelines for building out “make-ready” infrastructure to support charging.
- How the location of the electric service on-site may impact site design.
- What fees fleets can expect for electricity, including any time-of-use and/or demand charges.

Know Your Partners
There are more than 3,000 power utilities in North America, so understanding which ones to work with and how to connect is key.

Trucking fleets may need to work with multiple utilities with different coverage areas, each of which may have its own transportation electrification policies and plans, infrastructure and funding programs, as well as rate structures.

Many utilities are members of trade organizations such as NRECA, EPRI, EEI, APPA, and SEPA, all of which are thinking about advancing transportation electrification at a high-level. NACFE can help connect trucking fleets to these organizations.

Fleet Managers Meet Facility Managers
Fleet managers will likely need to partner with facility managers, who already interact with the local utility that provides power to the depot, distribution center, or warehouse. Each fleet will have an account manager at their local utility, who can help connect them with appropriate programs and funding sources for electric truck charging infrastructure. NACFE and RMI are able to provide guidance on how best to work with utilities to advance electrification objectives.
Some utilities offer guidance of their own for fleets, such as the EV Charging Guidebook for Medium- and Heavy-Duty Fleets, sponsored by Southern California Edison and Pacific Gas and Electric.

**Electric Truck Resources**

Given all the activity in the drive to a zero-emissions future for transportation, NACFE has published five detailed guidance reports to help fleets and utilities understand freight electrification. They are available as free downloads.

- **Electric Trucks: Where They Make Sense** – This report explores how electric trucks compare to traditional internal combustion engine (ICE) trucks. Truck payload versus the weight of batteries is one example of tradeoffs analyzed.
- **Medium-Duty Electric Trucks: Cost of Ownership** – This report identifies 20 key factors for growth in this evolving market. The work includes a separate total cost of ownership spreadsheet tool to analyze the cost trade-offs for ICE trucks versus battery electric vehicles (BEVs).
- **Charging Infrastructure for Electric Trucks** – The report focuses on what fleets have to consider when it comes to charging their BEVs. The size of battery packs and the frequent use of trucks makes recharging far more challenging than it is for passenger cars.
- **Viable Class 7 & 8 Electric, Hybrid & Alternative Fuel Tractors** – This report looks at the alternative options for tractor-trailers as the industry traverses the near-term “messy middle” of trucking seeking a cleaner and more efficient future.
- **Making Sense of Heavy-Duty Hydrogen Fuel Cell Tractors** – This report looks at the dominoes that need to fall in place to accurately predict the future for fuel cell vehicles.

Beyond buses and urban delivery vehicles, the next obvious market segment for electrification is in regional haul operations. NACFE has published a report on such fleets, More Regional Haul: An Opportunity for Trucking. This is a detailed overview on this significant growing segment of the trucking industry.

NACFE is also the team behind the Run on Less demonstrations. To date there have been three events in 2017, 2019 and 2021. Run on Less – Electric, conducted in September 2021, was a real-world electric truck technology demonstration, featuring 13 trucks driving real routes and carrying real freight in BEVs.

As part of Run on Less – Electric, NACFE conducted the Electric Truck Bootcamp, which consisted of 10 electric truck education sessions on topics including charging, working with utilities, incentives, maintenance and more.

The many videos created from the three Run on Less events are a great way to learn more about fleets that participated in the Runs.

**Working Together**

NACFE is engaged with various trade groups, and we welcome opportunities to work directly with utility companies. We conduct workshops to bring all interested parties together for an open discussion. Our schedule of appearances and events can be found on our website and in our newsletters. NACFE welcomes opportunities to collaborate and educate. We also want to field your questions because we are more impactful when we can see the situation through your eyes.

Please contact our director of industry engagement, Dave Schaller for initial conversations. Or visit us online at www.NACFE.org.