



SUSTAINABLE SUPPLY CHAIN ALLIANCE

FLEET ELECTRIFICATION QUICK START GUIDE

SSCA Guidance for Electric Utility Supply Chain Professionals

May 2023

<https://www.euissca.org/>



Disclaimer: Neither the SSCA nor any of its members specifically endorse any of the products mentioned in this Guide. The content in this Guide is only for information purposes and users are encouraged to do their own additional research to confirm applicability and appropriateness. The SSCA has not independently confirmed the information nor confirmed the accuracy of the tools cited in this document.

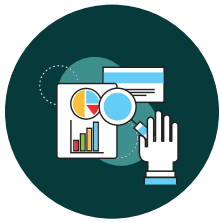
WHY IS THIS IMPORTANT?



01 — New Regulatory Frameworks

Governments and international organizations are increasingly developing regulatory frameworks to address, [incentivize and promote](#) fleet electrification as well as regulate/put mandates on [non-electric vehicles](#). Regulations and incentives for electrification vary significantly [per state](#).

Noteworthy examples include the [Advanced Clean Trucks \(ACT\) Regulations](#), [The Advanced Clean Fleet Program](#), [New Standards for National Electric Vehicle Charging Network](#), and the [The Glasgow Declaration on Zero Emission Cars and Vans](#).



02 — Increased Investor Scrutiny

Investors are more closely evaluating supply chain management practices such as fleet management. As it becomes increasingly evident that transitioning fleet is pertinent due to regulations, incentives, fuel prices, etc. the scrutiny from stakeholders, including utilities as well as investors, is steadily increasing. The time to start transitioning is now.



03 — Reputational, Financial, and Operational Risk

The [EPA](#) states that 27% of all GHG emissions come from transportation. With the rising pressure to reduce GHG emissions, not transitioning to electric fleets could increase reputational risk. With the increase in regulatory pressure, utilities will be asking suppliers to reduce their emissions, therefore, creating an increase in pressure on transitioning to electric. It is best to start planning for this transition now to avoid operational risks.

Not transitioning may increase financial risk because price parity is due in the next couple of years, so the time to transition is now. In addition, switching could provide financial benefits such as lower fuel prices, subsidies/incentives, etc.

WHERE SHOULD YOU START?

According to [PG&E's EV Guide book](#), the first thing anyone looking to transition their fleet to electric should do is clearly define the charging requirements for the EV's you are planning to procure. This helps the project manager clearly see all the other components of the project and all of the aspects of implementing the needed systems in a way that best fits your needs. You can also use the [PG&E Fleet Savings Calculator](#) which can estimate emissions savings, fuel savings, and more when making the switch.

Another resource to help you get started is [EPA SmartWay](#).

ORGANIZATIONAL RISK MANAGEMENT PRACTICES



Fuels/ Fuel Efficiency

- Fleet managers can [use strategies](#) to conserve and maximize their fuel while reducing their emissions. This includes tactics such as:
 - Training drivers on [fuel-efficient techniques](#) which include things like slower driving, combining trips, and reducing vehicle load.
 - Investing in [idle reduction](#) technologies and equipment
 - Use [tools](#) to better understand the economic and environmental cost and benefits of alternative fuels and advanced fuels, while also estimating emissions, air pollutants, etc.

Operational

- It is helpful to have a team or policy in place to ensure the implementation of sustainable fleet practices
- The [Federal Energy Management Program \(FEMP\)](#) recommends these best practices for optimizing sustainable fleet management-
 - Right-sizing fleets and vehicles to each project/mission
 - Reducing vehicle miles travelled (VMT) and reduce idling
 - Increase fleet fuel efficiency and reduction practices
 - Increase the use of alternative fuels and electricity through deploying electric vehicles and EV charging infrastructure

Asset Management

- Overall, managing the fleet helps increase productivity, decrease costs, and ensure compliance across the whole fleet.
- There are ways to automate management of the fleet and [tools](#) available.
- Workload distribution, including analyzing battery data and charging schedules of the fleet, will become imperative for companies taking on this transition.
- The [new processes](#) may require additional [management tools](#). [IoT software](#) is the gold standard, but SaaS is available for those taking a smaller step into fleet management.

Key Purchasing Practices

1

A [pilot program](#) can help you learn about new opportunities and how to best implement them for your companies needs, helps you invest in the best equipment, infrastructure and management tools, and educates employee's/fleet operators on Electric Vehicles.

2

Pursue low or cost saving fleet/fuel efficiency [opportunities](#). These could be technologies that [reduce idling](#) (i.e. auxiliary power units, cab/bunk heaters, etc.), promote [fuel efficiency](#) (using alternative fuels, training drivers in fuel efficiency techniques, etc) or pursuing [electrification](#) where it makes sense.

3

When working with suppliers, consider whether their fleets are electric, what strategies they are using to promote fuel efficiency and fleet electrification, and how to encourage them to consider fleet electrification if they aren't already. This is key when thinking about lowering scope 3 emissions and is an indicator of a mature organization.

Sample RFX Questions

1. Does the company assess their GHG emissions, including those that come from their fleet (included in Scope 1 and 2)?
2. Does the company have any goals or targets in place to reduce their scope 1 and 2 emissions?
3. Does the company have a sustainable fleet operations policy or operations team in place?
4. Does the company have a plan in place for transitioning their fleet to electric or implementing fuel efficiency technologies?
5. Does the company currently use electric vehicles in their fleet?

These sample RFX questions can be used however you see fit, including conversationally in engagements with suppliers.

Case Studies



Fleet Electrification Case Study from SSCA Utility Member: DTE

DTE is working to replace 20% to 25% of current fleet with greener vehicles by 2030, which is aligned with their carbon emissions reduction focus.

- DTE has 4,700 fleet vehicles and 434 are electric or have electric components. Electric components included job site energy management systems (JEMS an Altec product) similar to a giant battery pack, that gives roughly 80-90% of the benefit of an EV.
- Key transitional activities include making drivers aware of the transition and considering their needs as well as asking for formalized feedback on the technologies, providing the necessary tools and infrastructure for the drivers, and letting the drivers have hands-on experiences with the vehicles.

Steps to Electrifying the DTE Fleet- For more details on these read [this article](#).

1. Initiate electrification programming
2. Assess market opportunities
3. Evaluate challenges/risks/opportunities
4. Implement Infrastructure strategy
5. Launch rolling experimental lab
6. Populate the fleet

Fleet Electrification Case Study from SSCA Utility Member: SMUD

SMUD's ambitious 2030 Zero Carbon plan to deliver absolute zero carbon by 2030 includes fleet electrification.

- To date, SMUD's operational fleet contains 927 assets 13% of which have been electrified.
- To get to this point SMUD has participated in a hybrid bucket truck pilot, transitioned to renewable diesel, increased hybrid bucket truck investments, invested in charging infrastructure, electrified 100% of sedans, and developed a fleet electrification strategy and Zeus contract.

SMUD's Fleet Electrification Strategy

- SMUD is currently focused on transitioning 50% of their fleet what drives 70% of their total miles. This includes pickups and vans, bucket trucks, and light duty vehicles.
 - In the future, the focus will shift to transitioning heavy duty, service trucks and construction equipment

For more information on SMUD's Fleet electrification strategy, including [Why EV's](#), please visit their website .



TOOLS AND RESOURCES



SSCA Resources

- [Fleet Electrification Workshop Slides](#) and [Summary](#)

Frameworks

- [PG&E- A Guidebook to Fleet Electrification and Infrastructure](#)
- [FEMP Best Practices- Sustainable Fleet Core Principles](#)
- [EPA- Clean Fuel Fleets Program Guidance](#)
- [EPA- Green Vehicle Guide](#)
- [Alternative Fuels Data Center- Electric Vehicles for Fleets](#)



01

Tools and Resources

- [Alternative Fuels Data Center- Tools](#)
- [AFleet Tools](#)
- [Alternative Fuels Data Center- Driver Fuel Conservation Techniques](#)
- [Alternative Fuels Data Center- Fleet Manager Fuel Conservation Techniques](#)
- [Alternative Fuels Data Center- Idle Reduction Techniques](#)
- [EPA SmartWay- Heavy-Duty Truck Resources](#)
- [EPA SmartWay Resources](#)
- [IEA- Prospects for Electric Vehicle Deployment](#)
- [PG&E- Fleet Savings Calculator](#)



02



Regulations and Further Information

- [EY- How Commercial Fleet Electrification is Driving Opportunities](#)
- [SEPA- Utility Electric Fleets: Charging Ahead](#)
- [Duke Energy- EV Pilot Program](#)
- [BSR- Amazon EV Pilot Program Case Study](#)
- [Forbes- Fleet Management](#)
- [PG&E EV Fleet ACT Regulation fact sheet](#)
- [Alternative Fuels Data Center- Laws and Incentives](#)

03