The State of Fleet Electrification

Results of the FEC Demand Aggregation Survey Q2-3 2023
Introduction
Demand Aggregation Survey

The Fleet Electrification Coalition (FEC) aims to accelerate zero-emission truck deployments at scale by surveying leading fleets with operations in the US and Europe. This survey represents an industry first attempt to track down actual deployment and charging plans. The following data is fully anonymized and treated with the utmost respect for privacy and security.

The following report will illustrate the findings from our first survey by profiling respondents, investigating e-MHDT demand, and discussing charging strategies plus supporting measures taken by companies who wish to effect fleet electrification.

Survey duration: June to August 2023
Scope: On-road Class 2b-8/N2-N3 freight
Survey size: 26 respondents
14 Carriers / LSPs 12 Shippers
Introduction
Demand Aggregation Survey

Survey responses help us achieve the following objectives:

1. **Demonstrate Market Demand for E-Trucks**
   
   We compiled aggregated data to illustrate the collective e-truck demand across our network, providing a clear signal to OEMs, infrastructure providers, investors, and other industry partners.

2. **Guide Charging Infrastructure Development**
   
   Insights into your e-truck deployment plans enable us to work with charge point operators and infrastructure providers to prioritize the placement of charging stations in areas where they are most needed.

3. **Support Development of new Finance Mechanisms**
   
   Survey results also help us to implement finance mechanisms which accelerate e-truck adoption.

4. **Establish high-impact pilot projects**
   
   Your inputs will help us realize a range of high-impact collaborative pilot projects that create tangible action towards road freight electrification.
Demand Signal for e-Trucks in the EU and US

We see a significantly higher potential for deployment commitments and by involving more companies in the second survey, we will strengthen the voice of industry!

10,000

by 2026

60,000

by 2030
Participate in Our Second Survey

➢ The demand signal and our support becomes stronger with every company that joins this effort

➢ All information we gather is treated confidentially and only shared in aggregated, anonymized form

➢ Your input is important for paving the way for e-Trucks!

Follow this link to the Second Demand Aggregation Survey
Respondent Profiles

Company Type
- LSP / nonowner
- LSP / owner
- Carrier all in house
- Carrier / outsource
- Shipper / non-owner
- Shipper / owner

Fleet Electrification Strategy
- No Strategy / NA 12%
- In Progress 42%
- Fully Developed 46%

Commitment Sizes (by 2030)
- 0-100
- 100 - 500
- 500 - 1k
- 1-10k
- Greater than 10k

Projected e-Fleet

60,000 e-Trucks by 2030!

- 10k by 2026
- 50k by 2030

When asked which routes they would like to electrify, respondents suggested a geographically diverse range of potential electrification corridors, spanning from coast to coast.

Based on strategic partnerships, the Fleet Electrification Coalition is actively working to implement zero-emission long-haul trucking trials connecting key states and corridors.

This widespread interest and attractive policy incentives contribute to ready-to-electrify attitude across the country.

Further outreach in the second survey will crystalize and expand upon these preliminary findings.
Leading electrification countries such as Germany, France, and the United Kingdom are well represented.

Corridors our members have mentioned include high-traffic TEN-T network legs such as those through Germany and the BENELUX region.

Poland and Italy offer greenfield development opportunities, coupled with impressive long-haul trucking market share.

Strong European legislation and member states’ commitments paint an optimistic picture of electrification progress.

Our second survey is primed to solidify these insights and provide additional actionable information.
FEC Members in the United States and European Union receive support in four key categories, directly influenced by survey responses:

1. e-Truck Demand
   - Demand aggregation surveys + insights
   - Procurement Playbook publication

2. Charging Infrastructure
   - Shared charging working group launched early 2024
   - Public charging support including corridor identification, mapping and stakeholder involvement and outreach

3. Financing for SMEs
   - Direct involvement with financial organizations in FEC as both members and partners

4. Research and Guidance Publications
   - Depot Charging Guidelines
   - Forthcoming guidance on shared and public charging
Respondents indicated that they anticipate using all strategies for all duty cycles, which contradicts contemporary research expectations of usage patterns.

Focus must be on aligning deployment with usage to avoid any bottlenecks in the (early) implementation stages.

These responses place an emphasis on the importance of FEC workstreams and pilot projects focused on shared and public charging.

**Note:** anticipated strategy is for 2026 deployments.
Respondents Shared How They Support Charging

“For the battery electric trucks that you plan to deploy by 2026, how is your company planning to support charging?”

- 41% of respondents plan to make charging infrastructure *on their own premises* available to carriers
- 16% plan to deploy *shared or public* charging infrastructure
- 15% plan to *provide financial support* for charging at own locations or carrier depots
- 28% “Other”

From the ‘Other’ responses

- “We connect carriers and work with charging infrastructure companies/electrification-as-a-service companies to support charging for our carriers”
- “We are using (pre-existing) carriers’ or public infrastructure”
- “Depends on the specific site and available grid capacity”
Cargo Owners Offer a Range of Supporting measures to Their Carriers

- Cargo owners are eager to see supply chain decarbonization, and are offering various measures to pursue this goal
- Preferential contracting and financial incentives are the most common supporting measures given to carriers who use e-Trucks
- Future FEC work will strengthen these commitments and link them to innovative financing mechanisms, empowering carriers to deliver goods in a sustainable manner
Our next steps

- Presenting the results of the second survey at Smart Freight Week 2024
  
  We look forward to…
  - A strengthened demand signal
  - Specificity on charging strategy and infrastructure
  - Insight on carriers’, shippers’, and LSPs’ electrification progress

- Continued work on scaling and proof of business models for electrification

- Harnessing the power of demand aggregation to remain a key factor of success derived from this workstream

- Your survey responses help us target our impact, focus our work, and get more electric trucks on the road!

- Follow this link to the Second Demand Aggregation Survey
Uniting corporate freight buyers to shift towards zero-emissions freight across all modes of transport in collaboration with their supply chains and partners.

Contact information
Ruben van Doorn – FEC lead
Ruben.van.Doorn@smartfreightcentre.org
Samuel Barendregt – Jr. Technical Manager
Samuel.Barendregt@smartfreightcentre.org
Jessie Lund – Deputy Director Trucks
jlund@calstart.org