Bringing battery-electric freight trucks to market: From demonstration to commercialization

Drive Electric PA Meeting

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Volvo Group

What we do

Volvo Group offers trucks, buses, construction equipment, power solutions for marine and industrial applications, financing and services that increase our customers' uptime and productivity.

We contribute to the development of electrified and autonomous solutions for the benefit of customers, society and for the environment.









Electrification of commercial vehicles taking off globally

We've spent years developing complete solutions for electromobility











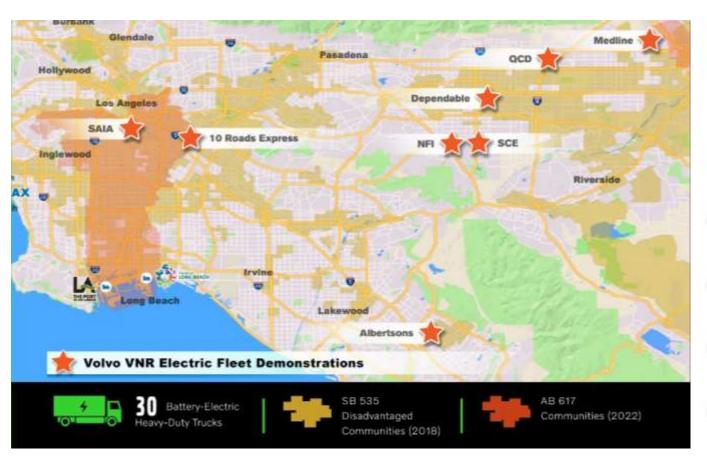


Volvo Energy drives circularity



Volvo LIGHTS established a template for redefining goods movement

An extraordinary union of stakeholders to propel battery electric freight movement beyond the 'demonstration' phase





Deployment of charging infrastructure is expensive and will take time

14 charge ports for Class 8 battery-electric trucks have been installed, 6 of them are semi-public









O months

12+ months

New paradigm shift - lack of familiarity contributes to delays

Project success is highly dependent on public funding/incentives and multi-stakeholder coordination

- Battery-electric Class 8 trucks are here and can contribute positively to fleet operations (but not without sustained incentives for vehicles <u>and</u> infrastructure)
- Timelines for infrastructure readiness lag vehicle deliveries. Policies needed to accelerate/prioritize the infrastructure installation timeline are critical to the timely adoption of battery-electric Class 8 trucks
- TCO parity with diesel truck-based operations will need more time (> 5 yrs.)
 - Interdependent charging factors charging rates, impact on batteries, energy costs, etc.
 - Residual value are unknown today marketplace and speed of technology development will determine this
 - Maintenance costs (for trucks and chargers) are unknown
- Small operators cannot assume cost and risk of battery-electric Class 8 trucks without a significant discount on the trucks and access to charging ports
- Other macro issues
 - Supply chain for electric trucks and chargers underdeveloped
 - Workforce development to support truck and charger uptime is underdeveloped

