



Saving the planet, one truck at a time

Safer. More reliable. Lower cost.

www.orangeev.com

Technological Maturity

- EV technology is more than 100 years old
- Battery and motor technology keeps getting smaller, better, more affordable and reliable
- Over-the-road trucks are emerging quickly, but are not yet viable for widespread use (Daimler, Volvo, Tesla, Nikola, others)
- Terminal tractors have been deployed for more than 5 years and can **begin improving the air in your community today!**

Columbia

ELECTRIC DELIVERY WAGONS and TRUCKS

Save 50 per cent. of the cost of keeping up horse equipments equal to the same amount of work.

Same style of chassis for 1,000, 2,000, 6,000, 8,000 and 10,000 - pound loads ranging from light delivery wagons to heavy trucks.

THE chassis includes the complete running gear, battery, controlling apparatus, seat platform and all electric wiring. It is entirely independent of the body, which may be of any shape or style to suit the purchaser. The chassis is delivered ready to run. We will furnish bodies, or they may be obtained of the vehicle trade at large. Any competent wagon-maker can do the body work.

Correspondence solicited from every Brewer who is interested in up-to-date transportation methods.

Catalogue illustrating twenty different styles of Columbia Electric Commercial Vehicles will be sent on request; also, separate catalogues of Columbia Electric Passenger Vehicles and 35-40 H. P. and 18 H. P. Gasoline Cars.

ELECTRIC VEHICLE COMPANY, Hartford, Conn.

NEW YORK: 134, 136, 138 West 39th Street. BOSTON: 74, 76, 78 Stanhope Street. CHICAGO: 1413 Michigan Avenue.

Member Association Licensed Automobile Manufacturers.

Western Brewery Journal - 1905

<http://www.kcstudio.com/collect1903b.html>

A white terminal tractor with an orange cab and "PURE electric" branding. The tractor is parked in a warehouse yard.

What is a Terminal Tractor?

- AKA: Yard Goats, Hostlers, Tugs, Shuttles, Yard Dogs ...
- Move trailers/containers in warehouse yards, distribution centers, ports, rail yards, etc.
- Duty cycle
 - Varies, but moderate to heavy operations run trucks 3,000-6,000 hours per year
 - High torque, low speed (<25 mpg), short wheel-base and radius for tight yards
 - Pull 80,000 lbs
 - Can have long pauses between pulls (high idling)
 - Occasionally used for short distances on-road hauling containers between yards

Diesel-Powered Terminal Tractors

- Extensive idle time
- Emissions reduction equipment doesn't work well at low speeds
- NOx emissions likely “more than five times the certification limit for the average heavy-duty vehicle”*
- Drivers, employees and communities exposed to significant, unhealthy emissions



By Mr.choppers - Own work, CC BY-SA 3.0, <https://commons.wikimedia.org/w/index.php?curid=78026691>

*Huzeifa Badshah, Francisco Posada, Rachel Muncrief. *Current State of NOx Emissions from In-Use Heavy Duty Diesel Vehicles in the United States*. White Paper published by the International Council on Clean Transportation, 2019.

Pure Electric Terminal Tractors

- Better for the community
 - Zero emissions
 - Cleaner and quieter
- Better for drivers and employees
 - Cleaner, quieter, smoother, safer
 - Higher driver satisfaction
- Better for businesses
 - Higher reliability
 - Lower fuel costs
 - Payback varies, but for heavy duty sites can be:
 - With incentives: 2 to 3 years
 - Without incentives: 4 to 5 years

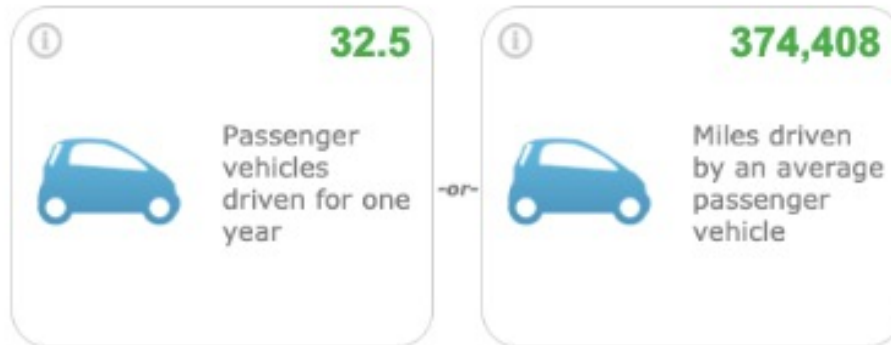


Replacing One Heavy-Use Diesel-Powered Terminal Tractor with One Pure Electric Terminal Tractor...



...is equivalent to:

Greenhouse gas emissions from



Carbon sequestered by



CO₂ emissions from



Orange EV Terminal Tractors

Proven and Preferred



- Deployed nationally since 2015 initial production, across weather and duty cycles
- Growing exponentially since first deployment, now with more than 250 trucks in service
- Chosen by more than 90 fleets across 19 states, Canada, and the Caribbean
- Commercially deployed fleet has surpassed 846,000 hours and 2.7 million miles

Truck Specifications and Pricing



Tailored to meet customer needs

- Specifications and pricing for each truck dependent upon site, duty cycle and other factors affecting usage profile.
 - Multiple battery pack options
 - Multiple charging system options
 - Multiple axle configurations
- Average 2x to 3x the cost of diesel



Incentives for Terminal Tractors



A general overview in California

Terms to Know

Voucher VS. Reimbursement

Scrap

CORE

**Clean Off-Road Equipment
Voucher Incentive Project**

\$100,000 to \$158,800 depending
upon truck configuration

No scrap required

Voucher

CMP

Carl Moyer Program

Up to 80% of the cost of the new
truck

Scrap required

Reimbursement

CHPP

**Community Health Protection
Grant Program**

Similar to CMP, but with additional
funding for projects located in and
disadvantaged communities
(including AB 617s)

Up to 85% of the cost of the new
truck

Scrap required

Reimbursement

VW

**VW Mitigation Trust: Zero-
Emission Freight and Marine Grant**

Up to \$175,000 towards the cost of
the new truck

Scrap required

Reimbursement

Learn More at OrangeEV.com



Martin Abbott

Regional Sales Manager

MartinA@OrangeEV.com

805.443.4063 (c)

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Terry A. Manies

Grants Administrator

TerryM@OrangeEV.com

816.786.0524 (c)

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@OrangeEV.ElectricVehicles



@Orange-EV

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