

Siemens eHighway

Electrified road freight transport –
contributing to a sustainable transport sector

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11%

of expected truck toll revenue
(Lkw-Maut) would cover the
investment in a 4,000 km network

4,000 km

network of contact lines on German autobahn
is recommended by the Federation
of German Industries (BDI) as a
cost-effective decarbonization measure

16,000 €

of fuel savings can be achieved
by a 40-ton truck driving
100,000 km on the eHighway
(based on 1.25 €/l diesel and
0.15 €/kWh electricity)

80%

of heavy duty trucks would have
an economic incentive to switch
to contact line, given that the
busiest 4,000 km of autobahn
are electrified

>7,000,000 t

of CO₂ savings per year if 30%
of truck traffic on German highways
is electrified and supplied
with renewables

The key innovation is the active
pantograph, capable of connecting
while driving at any highway speed

>80%

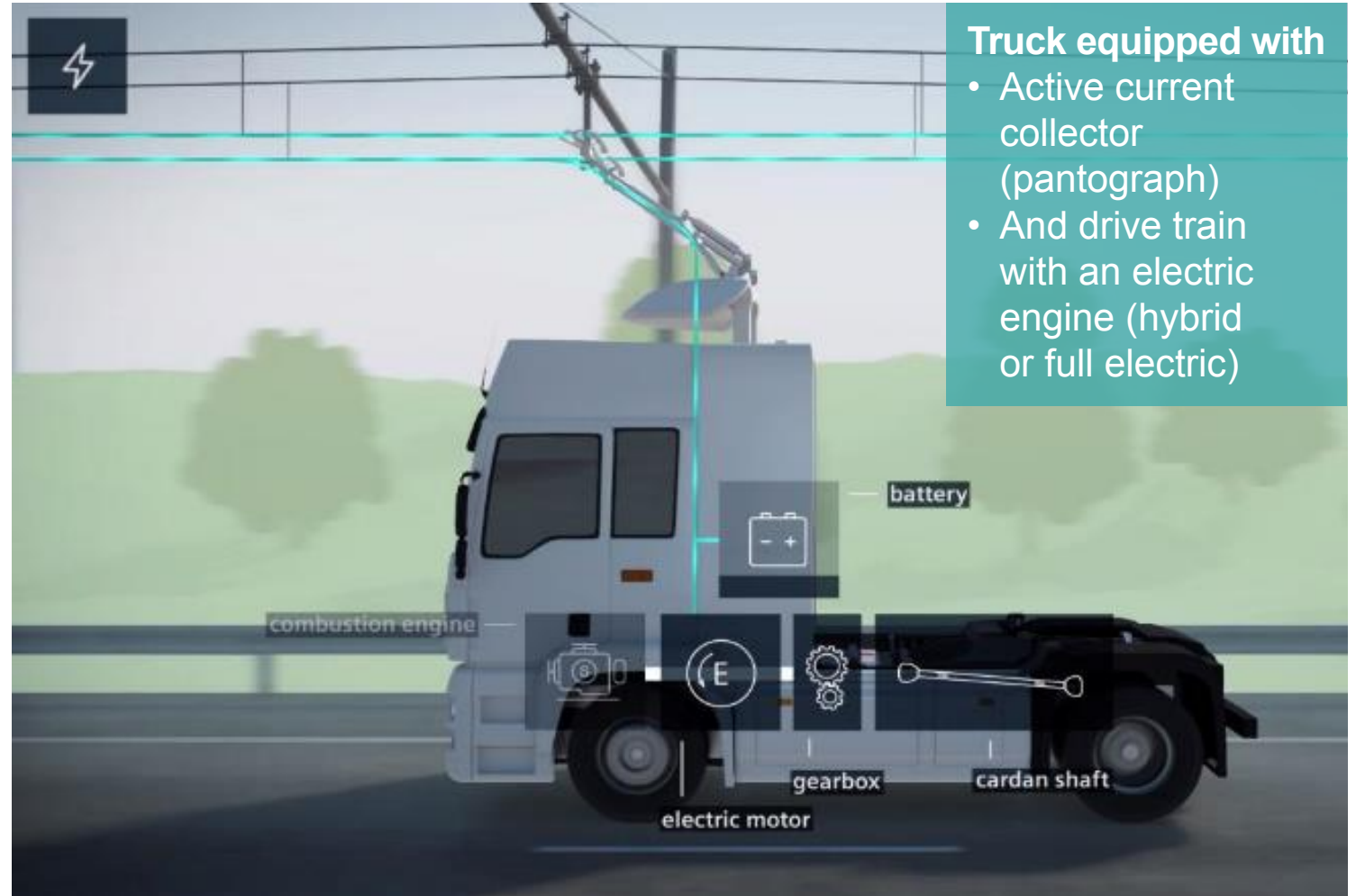
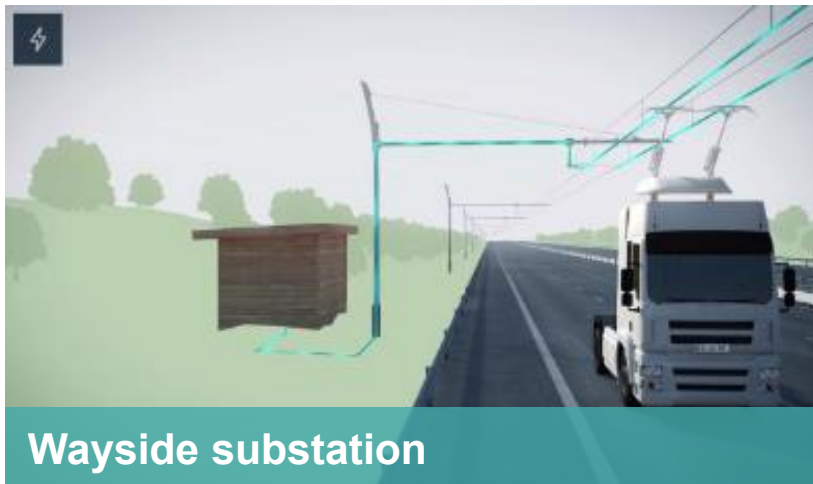
efficiency level with
overhead contact lines

Driving on non-electrified
roads (e.g. when overtaking
or "first and last mile") is
ensured by the hybrid drive
technology of the truck and
on-board energy storage

Braking energy can
be recovered



How an eHighway for HDVs works



eHighway technology: From proof-of-concept to field trials

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Development of the eHighway vehicle technology

2010

1st Generation
Proof-of-concept



2020

2nd Generation
Swedish and US
Demonstration projects

3rd Generation
Field trials

Operations up
to 100 km/h possible

Connection and
disconnection to
catenary in motion

Recharging of
on-board energy
storage while driving

No limitations for
first and last mile

Siemens eMobility™ USA



USA Highlights

45,000
Charging points

6
Local Market Factories

100 Gb
6 Years of EV Usage
Patterns



eMobility™ USA Footprint

R&D

- AC Charging Atlanta, GA
- DC Bus Charging, Atlanta, GA
- Charging Software Foster City, CA

Factory Footprint

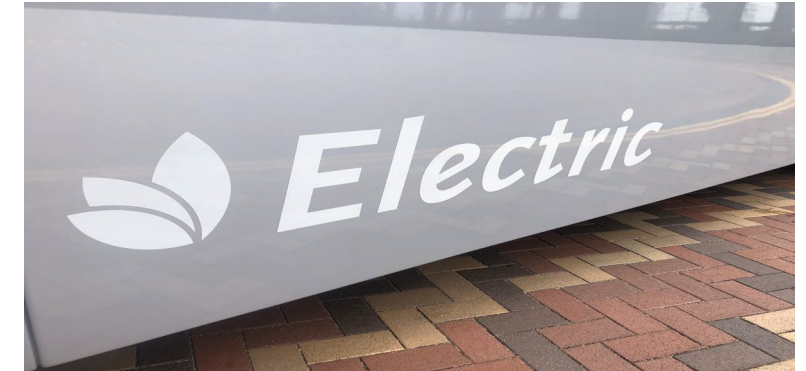
- AC Charging Los Angeles, CA
Shanghai, China
- DC Charging Raleigh, NC
Portland, OR
Portugal, Spain
- Make-ready Panels Spartanburg, SC
Grand Prairie, TX
Pomona, CA

Sales Entities

- Dedicated specialized North America support team
- Utility Sales / PSS > 150 Sales engineers
- Construction and Industrial Sales >200 Regional Sales / Consultants

Siemens eMobility Los Angeles Metro eBus

- Forty 60 foot articulated electric buses
- Overhead 'On-Route' Chargers



Bus Overhead
"Opportunity
Charging"



- On-route charging
- 150kW - 600kW
- Minutes to charge



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