



Zero Emissions Strategy



Corporate Zero Emissions Goals:



Climate

- **NEW: Target zero emissions by 2040**
- Reach 100% renewable energy by 2035
- Work with suppliers to avoid 1 gig of greenhouse gas emissions across supply chain by 2030



Nature

- **NEW: With the Walmart Foundation, help protect, manage or restore ~50M acres of land and 1M square miles of ocean by 2030**
- Source 20 commodities more sustainably by 2025



Waste

- Create zero waste in key markets by 2025
- 100% private brand recyclable, reusable packaging by 2025



People

- Make responsible recruitment standard business practice by 2026

1



Scaling clean, affordable, renewable energy

2



Improving energy efficiency in our facilities

3



Improving refrigeration systems in our facilities

4



Maximizing the efficiency and safety of our trucking fleet

Initiatives:

- Onsite renewable
- Offsite renewable
- Renewable fuels
- Policy engagement

- Efficient technologies
- Energy management
- Building design

- Reduce – Maintenance
- Prevent – Improved designs
- Transition – New refrigerants

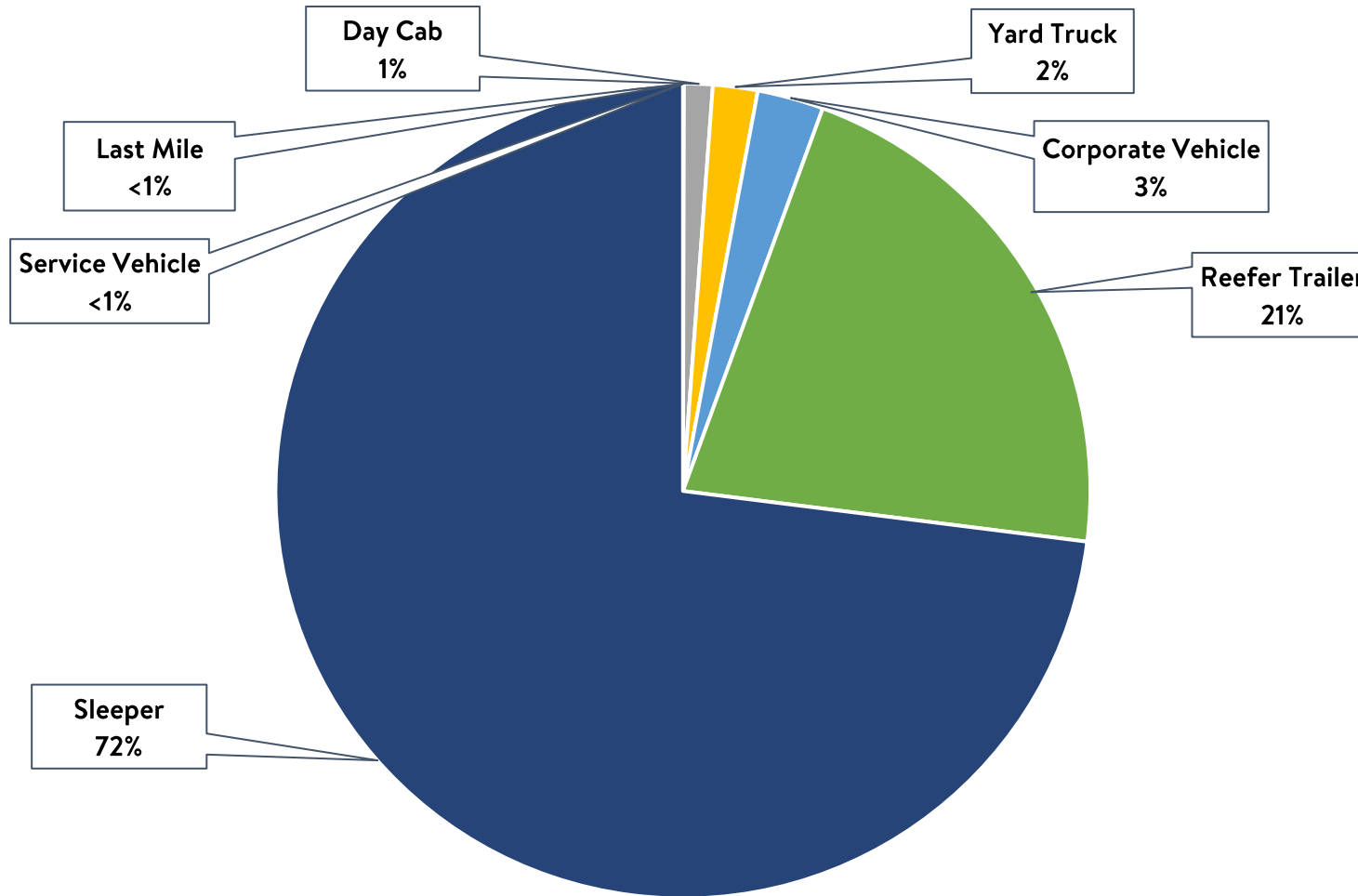
- Efficient technologies
- Optimize routing and filling
- Driver training
- Low-carbon fuels
- Advance electrification

<https://corporate.walmart.com/newsroom/videos/zero-emissions-by-2040>



CO2 Emissions Current State:

Baseline Emissions



2.3B lbs. of CO2 by Vehicle Type

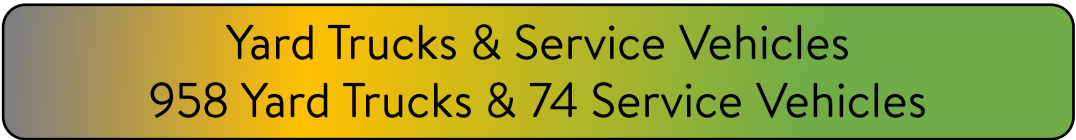
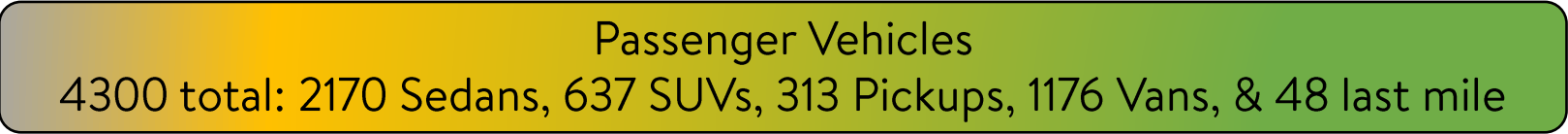
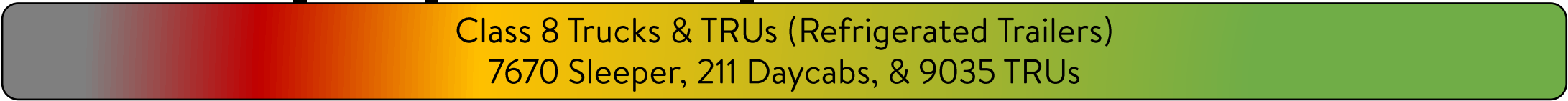
- Last Mile: 314k
- Service Vehicle: 712k
- Day Cab: 29M
- Yard Truck: 45M
- Corporate Vehicle: 67M
- Reefer Trailer: 549M
- Sleeper: 1.9B



Solution Varies by Vehicle Type Over Time:

- Baseline
- Baseline + Alternative Fuels
- Baseline + Alternative Fuels + Hybrid
- Zero Emissions

2023 **New** TRUs & 2027 **All** TRUs CA Compliant





Electric Refrigerated Trailers



- Used to run the refrigeration system on electric versus diesel power when a trailer is stationary
- Expected benefits include:
 - Emissions reductions
 - Fuel cost savings
 - Maintenance reductions
- Current challenges:
 - Few charging receptacles have human and equipment safety built-in
 - Cost of infrastructure



Auxiliary Power Units



- Provides power for driver amenities while the truck is stopped
 - A/C and heat
 - Hotel load
- Standard on all sleeper trucks
- ThermoKing TriPac
- Uses about 1/10th of the fuel per hour as the main engine

Tesla Electric Trucks

- Battery operated
- Positives –
 - equal to or greater torque and operating needs
 - Zero emissions
 - Quick charging process takes 30 minutes to equal 80%
- Negatives
 - 300 -350 mile distance under a full gross unit
 - Requires high voltage charging stations – minimal locations

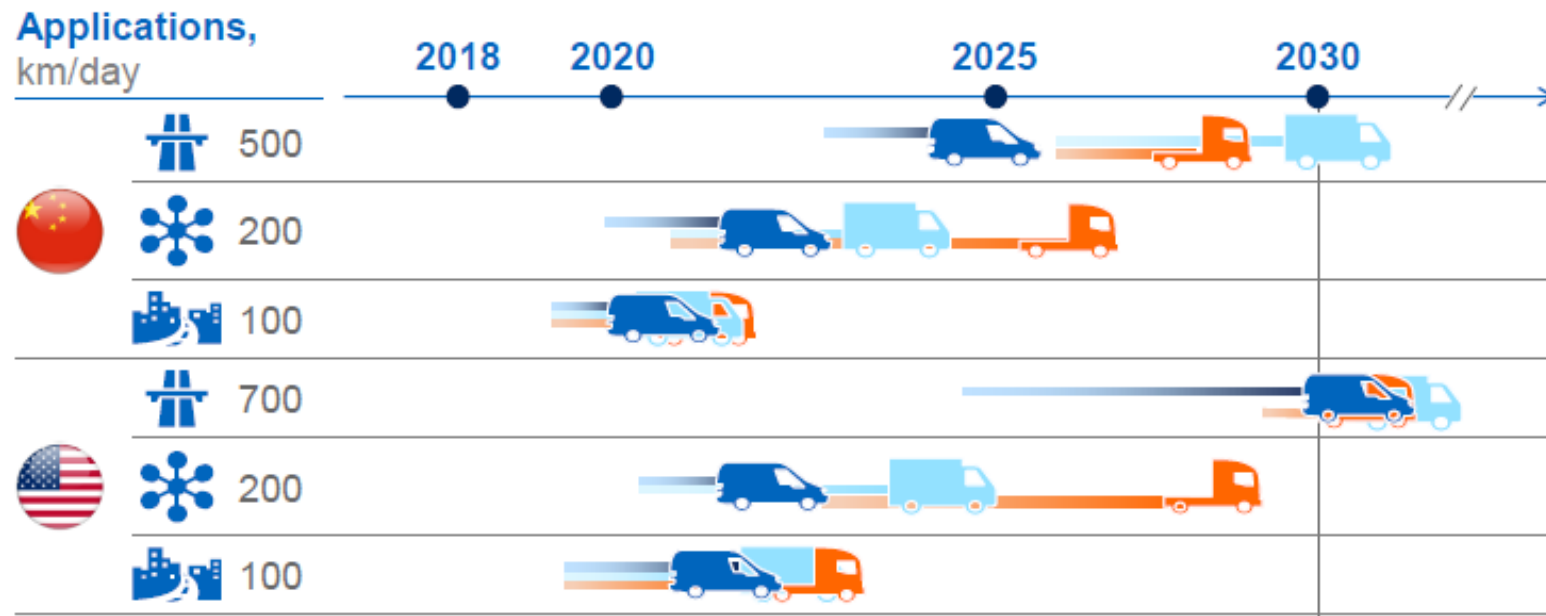




Fleet: US industry will likely begin to long-haul fleet conversion at scale in 2030



Timing of eTruck TCO parity vs diesel - Base case, tails shows early adoption



- Walmart has historically been an industry leader on long-haul efficiency and innovation
- Almost all states have new or pending actions (e.g., CA requiring zero emissions vehicles including long-haul by 2040)
- US long-haul evolution likely to lag urban vehicles
 - Longer distances, larger battery, less regenerative braking
 - Routing optimized for efficiency
 - Lack of charging infrastructure
 - Lower diesel prices
 - Utility infrastructure, policy

¹ Weight class definitions: US: HDT: Class 8 (>15t), MDT: Class 4-7 (6-15t); LCV: Class 1-3 (<6t), excluding pick-up trucks below 3.5t; EU: HDT >16t, MDT: 7.5-16t, LCV: <7.5t; CN: HDT >14t, MDT: 6-14t, LCV: <6t

SOURCE: McKinsey Energy Insights' Global Energy Perspective, May 2019

Walmart Press Release on becoming a regenerative company

- https://corporate.walmart.com/media-library/document/walmart-sets-goal-to-become-a-regenerative-company/_proxyDocument?id=00000174-ae08-dcf3-a7fc-afdcca070000

Walmart Sustainability Hub

<https://corporate.walmart.com/global-responsibility/sustainability/>



Sustainability

USING OUR STRENGTHS TO HELP PEOPLE LIVE BETTER AND PRESERVE THE PLANET

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For [more than 15 years](#), Walmart has been collaborating with others to drive positive impact across global supply chains. Our