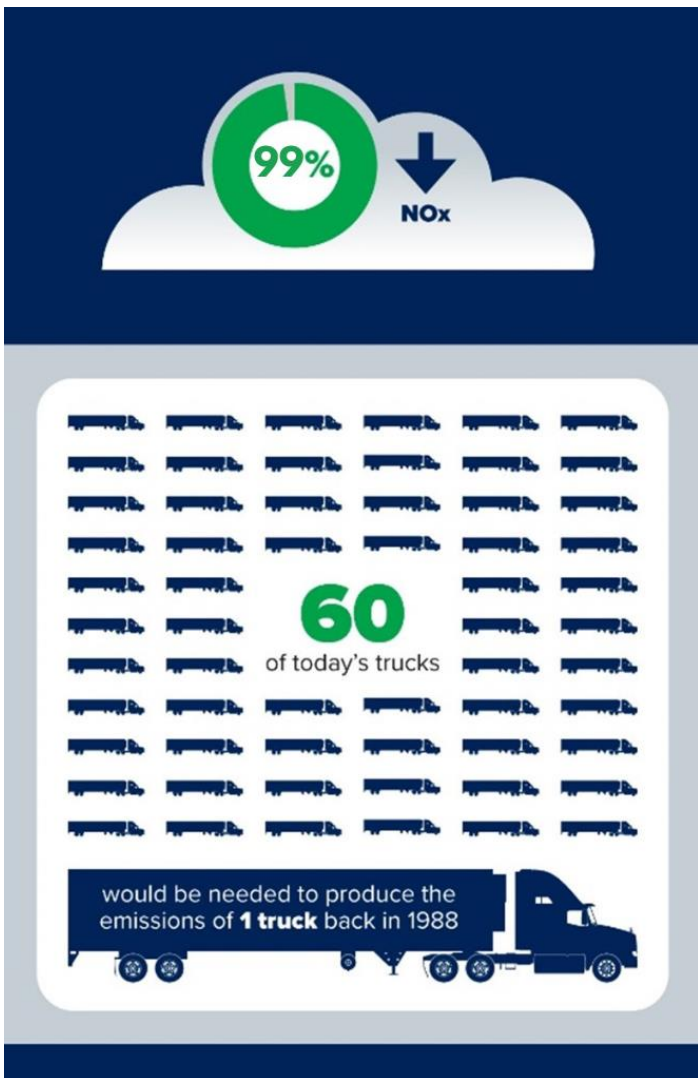


Trucking Emissions Progress To Protect the Environment

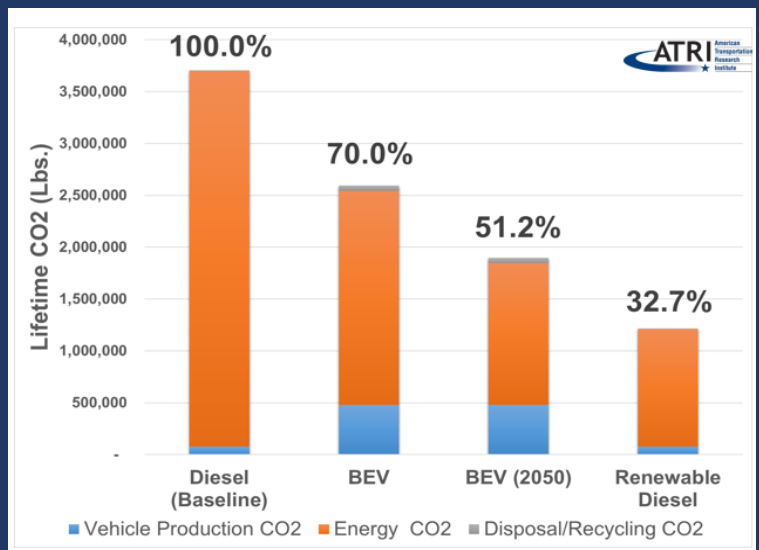
- Today’s clean diesel technologies have **reduced pollutants by 99%** since 1988, including particulate matter and nitrogen oxide (NO_x).
- **60 trucks** on the road today equal the same emissions as one truck on the road from 1988.
- Since model year 2014, trucks have **cut CO₂ emissions by 1.37 billion tons**, reducing oil consumption by 2.5 billion barrels by 2027.



Emission Reduction Solutions

- American Transportation Research institute (ATRI) research found renewable diesel as an effective alternative pathway to decarbonization. Switching a petroleum diesel truck to a renewable diesel truck would **decrease CO₂ emissions by an average of 67.3%**.
- Renewable diesel uses the same infrastructure, has fewer performance issues, and is more cost competitive to diesel.
- Flex-fuel hybrid technologies provide a way for such trucks to gain early entry into the marketplace by **overcoming limited range, cost, and battery-weight concerns**.
- **43% of the trucks in our nation’s fleet are pre-2010 models**. 2010 marked a milestone in truck engine technology with the standardization of selective catalytic reduction and diesel particulate filters.
- The cleanest and most fuel-efficient diesel engines are coming to the market in 2027 where they will **reduce NO_x emissions by 82% of the remaining 1% of pollutants**.
- Eliminating the 12% Federal Excise Tax on new truck purchases would **incentivize fleets to invest in cleaner and safer trucks**.

Comparison of Life-Cycle CO₂ Emissions for Four Class 8 Truck Classifications

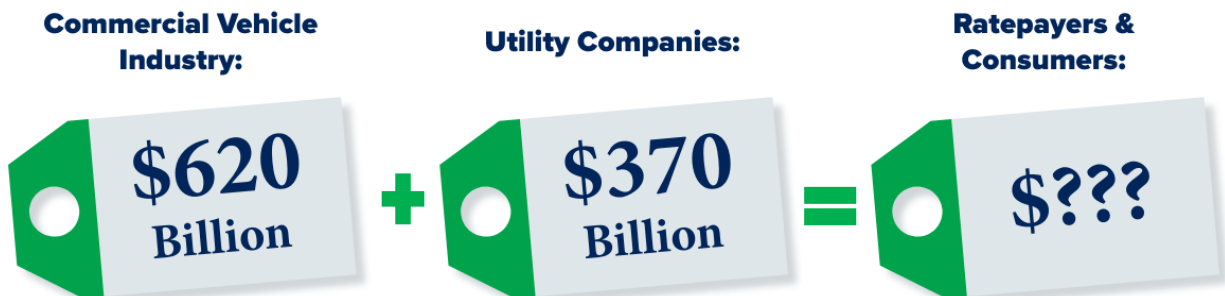


Source: J. Short, et al, *Understanding the CO₂ Impacts of Zero-Emission Trucks*, ATRI (May 2022),

Preparing for Electrification

- [Preparing today's commercial vehicle fleet](#) for electrification would require the commercial vehicle industry to **invest upwards of \$620 billion** in charging infrastructure alone, including chargers, site infrastructure and electric service upgrades.¹
- Utilities would need to **invest \$370 billion** to upgrade their grid networks to meet the demands of just commercial vehicles.¹
- This nearly **\$1 trillion expenditure** does not account for the cost of new battery-electric trucks, which according to market research can be two to three times more expensive than their diesel-powered equivalents. For example, a diesel Class 8 truck costs roughly \$180,000, while a comparable battery-electric truck costs over \$400,000.
- A recent ATRI analysis found that if today's diesel tractors were replaced with much heavier electric trucks - one-third of the truckload sector would suddenly be too heavy for U.S. roads. The result: additional electric trucks would be needed to move the same amount of freight as a diesel truck. **For every 1,000 electric trucks, an additional 343 electric trucks would be required due to battery weight.**
- Available battery-electric trucks operate with limited range. Long-haul battery electric trucks have a **range of about 150-330 miles and can take up to 5-8 hours to charge**-assuming chargers are available. In contrast, diesel equivalent trucks spend 15 minutes fueling anywhere in the country and then travel about 1,200 miles before fueling again.

Infrastructure Spend



¹ [Forecasting a Realistic Electricity Infrastructure Buildout for Medium- & Heavy-Duty Battery Electric Vehicles](#), Clean Freight Coalition (March 2024), [RB Study Report_final\[111225\].pdf](#) (cleanfreightcoalition.org).