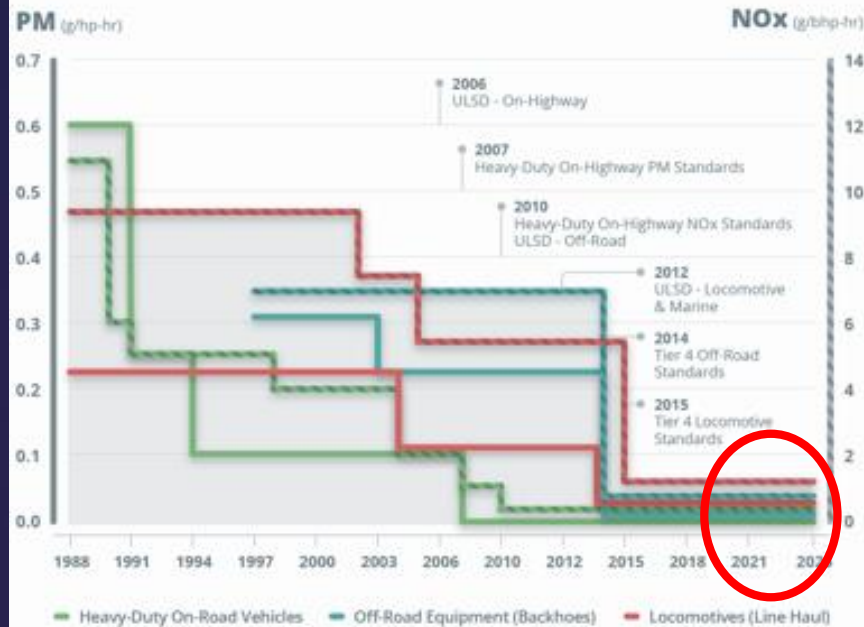


PROGRESS TO NEAR-ZERO PM & NOx EMISSIONS



Source: U.S. EPA Office of Transportation and Air Quality (OTAQ)

New Technology Diesel Engines for commercial trucks, farm tractors, construction machines, generators sets, rail, all now achieve near zero emissions, are more fuel efficient and lower in GHG emissions; all are capable of using low-carbon biobased diesel fuels.

Further reductions in emissions (new standards for commercial trucks) is coming.



Diesel is the technology of choice for Commercial Vehicles

More New Generation Near-zero emission diesels are now on the road (49% of all registered diesel vehicles; up 6% last year)

....

And these are delivering significant benefits in lower emissions and fewer GHG and lower fuel consumption.

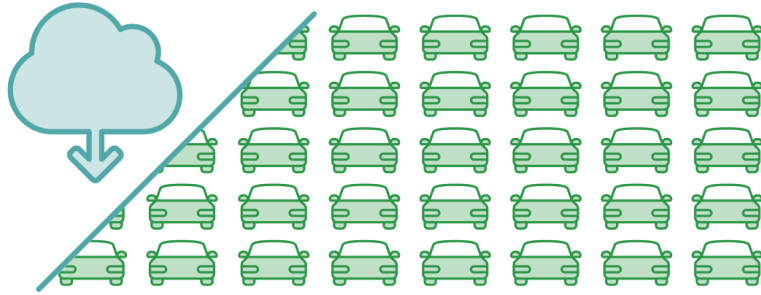


New Generation Advanced Technology Diesel Trucks Save Fuel and Deliver Major Climate and Clean Air Benefits (Class 3-8 Vehicles Model Year 2007-2020)



AutoForecastSolutions, 2021

New technology diesel trucks reduced **202 M tonnes of CO₂** emissions since 2007

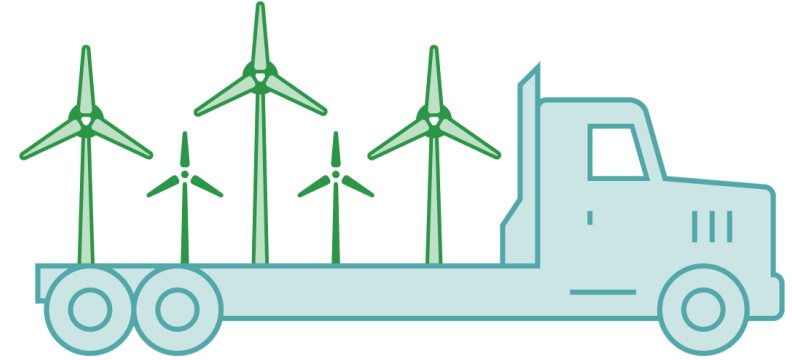


Equal to removing CO₂ emissions from **43M** passenger vehicles from the road for one year or making them **zero emission** electric vehicles



Source – AutoForecastSolutions, 2021

New technology diesel trucks reduced **202 M tonnes of CO₂** emissions since 2007



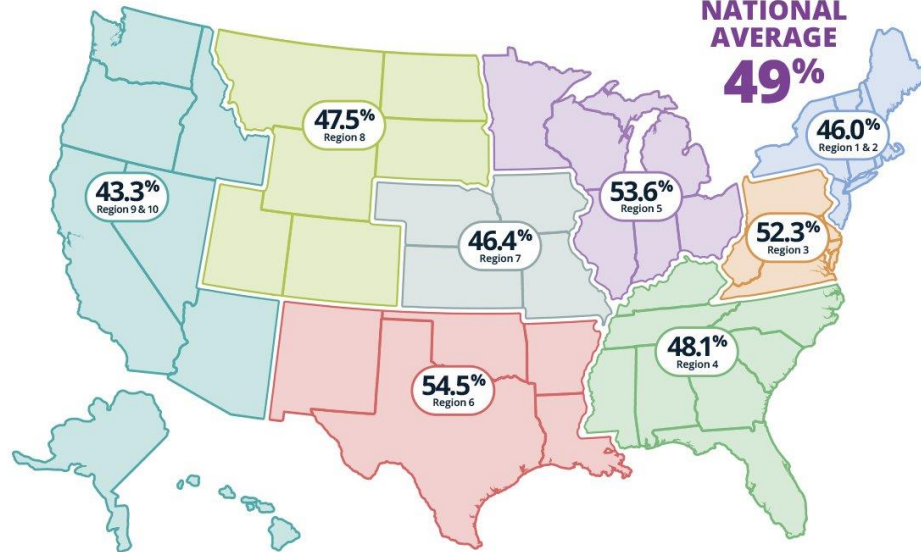
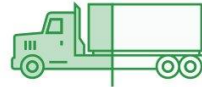
Equal to a wind farm with **42k turbines over 210k acres** (~5x the size of Washington D.C.)



Source – AutoForecastSolutions, 2021

New Diesel Trucks Are Delivering Large Scale Benefits

Percentage of Newest Generation Heavy-Duty Trucks by U.S. EPA Region



Source – December 2020 U.S. Vehicles in Operation Data (Class 3-8 vehicles, Model Year 2010 and newer) provided by IHS Markit

Southeast, Midwest have the highest percent of Near-Zero Emissions (2011 & later MY) Diesel Trucks on the Road; California/west-coast, the lowest percentage.

Percentage of Class 3-8 Diesel Trucks that are MY 2010+



Ranking

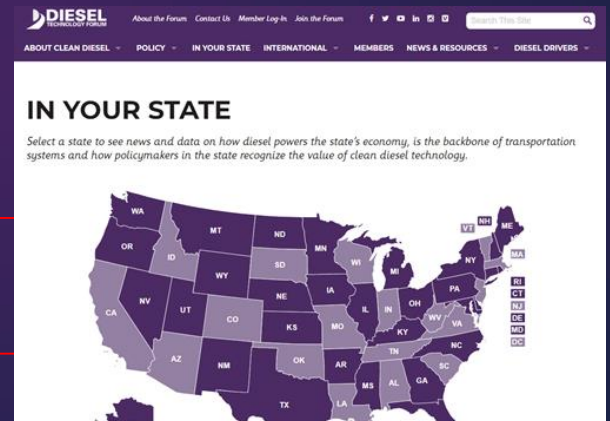
| | | | | | |
|---|--------------|-------|----|-----------|-------|
| 1 | Indiana | 66.8% | 6 | Florida | 55.2% |
| 2 | Utah | 59.9% | 7 | Maryland | 52.4% |
| 3 | Pennsylvania | 58.7% | 8 | Illinois | 51.8% |
| 4 | Oklahoma | 58.2% | 9 | Wisconsin | 51.6% |
| 5 | Texas | 56.3% | 10 | Tennessee | 51.2% |



Indiana is #1 for 8 years in a row



Source – December 2020 U.S. Vehicles in Operation Data (Class 3-8 vehicles, Model Year 2010 and newer) provided by IHS Markit



How does your state fare? Visit
www.dieselforum.org/in-your-state

Strategies to decarbonizing the Transportation Sector must include use of Low-Carbon Renewable Biodiesel Fuels ...

these deliver immediate climate benefits, without changing infrastructure or engines.

C02 Reduced in CA (2011-2019)

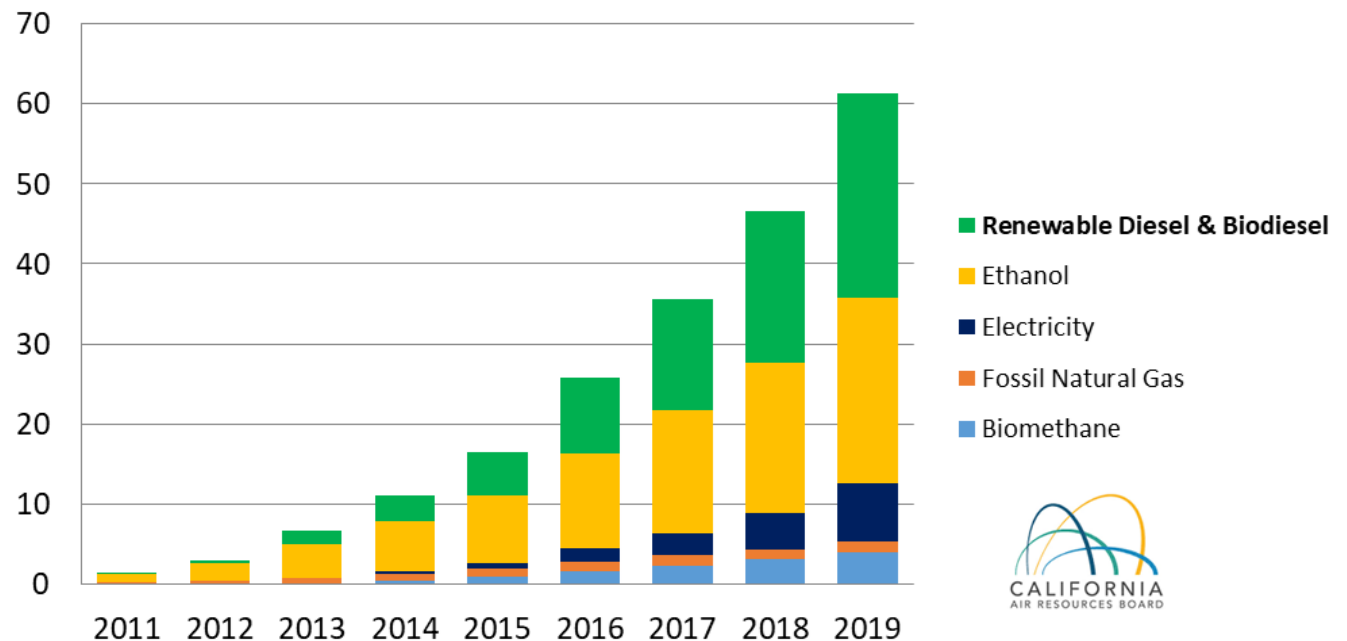
Renewable Diesel and Biodiesel =
25.5 million tons

Ethanol = 18.8 million tons

Battery-Electric = 2.5 million tons

Cumulative C02 Reductions (million tons)

SOURCE: California Energy Commission, Low Carbon Fuel Standard Dashboard



- Like our world, the problem is large and complex and there is not a “one size fits all solution that overnight will transform everything.
- Internal Combustion Engines like Diesel are going to be around for a long time; continuous improvement in lower emissions and greater efficiency is a key part of ensuring near term progress on GHG reduction and cleaner air in communities.
- EVs may develop to be a perfect fit for some applications, less so for others. Until we have a 100 percent renewable grid, EVs will be powered to some degree by fossil fuels. Consumers and businesses value choice and market driven solutions, and that includes the ability to choose low carbon biobased diesel fuels.
- We must continue progress in reducing emissions and should welcome all strategies that reduce carbon emissions in whatever form they come.

SUMMARY

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