Reducing emissions from the transportation sector is a focal point of many strategies to address climate change. And within transportation, heavy freight poses a specific challenge. Semi-trailer trucks, construction vehicles, and other large haul vehicles are some of the hardest to decarbonize because of the long distances they travel carrying heavy loads. Over the next several decades as the global economy grows, the size of the heavy trucking fleet and its demand for diesel fuel are both projected to rise. American refiners are investing to meet this challenge head-on by producing renewable diesel fuel that can deliver immediate emissions reductions, making it possible for our heavy freight customers to reduce their environmental impact both now and in the future.

Renewable diesel—made from fatty waste diverted from landfills such as old grease, used cooking oil, and animal tallow—is some of the cleanest liquid fuel in the world, with half the lifecycle carbon emissions of petroleum diesel. Every engine designed to run on petroleum diesel can also take renewable diesel. They’re nearly identical products, compatible with all the same infrastructure.

Producing renewable diesel relies on the same science refiners have used for decades to make petroleum diesel, but the process generates up to 80 percent fewer greenhouse gas emissions. With strong market demand guiding production, renewable diesel output in the United States has increased nearly 15 percent over the last year and close to 20 renewable diesel projects at refineries are underway, including one that will be the world’s largest renewable fuel plant.

There is no single solution for cleaner transportation. A mix of liquid fuels and technologies are required. But thanks to decades of planning and the brilliance of our workforce engineers, U.S. refiners are the world leaders in clean fuel production—from ethanol and high-octane gasoline to sustainable aviation fuel and renewable diesel. The future for renewable diesel and each of these liquid fuels is exciting and strong.

Renewable diesel is one part of the paradigm shift taking place in liquid-fuel-powered transportation. It’s one more way We Make Progress.
Fuel Policy

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Renewable diesel