



Redeem Fact Sheet

What is Redeem?

- Redeem is the first commercially available renewable natural gas vehicle fuel. Redeem is derived entirely from organic waste streams and will be available in either CNG or LNG form.
- Redeem is a product from Clean Energy—the largest producer, marketer and distributor of renewable natural gas, or biomethane, as a vehicle fuel in North America.

How much cleaner is Redeem and why is it so much cleaner?

- According to California Air Resource Board estimates, Redeem enables up to a 70% reduction in carbon emissions when displacing diesel or gasoline.
- Redeem is derived from biogenic methane – methane that is naturally generated by the decomposition of organic waste at landfills and agricultural waste sources. Capture and combustion of this methane that might otherwise have migrated to atmosphere can actually result in a *negative* carbon footprint.
- A fleet that consumes 1,000,000 gallons of gasoline per year can reduce their greenhouse gas emissions by approximately 9,700 metric tons by switching to Redeem, which is the equivalent of taking 1,940 passenger cars off the road.

Where is Redeem made and where is it available?

- Redeem is produced from renewable natural gas production facilities owned and operated by Clean Energy. Biomethane is also procured from third party producers and distributed as Redeem to Clean Energy customers.
- Currently, Clean Energy is offering Redeem through its public CNG and LNG stations in California. Redeem is available in other parts of the country to Clean Energy fleet vehicle customers.

How does Redeem get from Clean Energy's processing plants to its LNG plants and CNG and LNG fueling stations?

- After going through a cleaning process, biomethane is injected into the nation's natural gas grid and transported to Clean Energy's fueling infrastructure. The biomethane is then compressed or liquefied and sold as Redeem vehicle fuel.
- In effect the process is equivalent to depositing \$100 at an ATM in New York and withdrawing it the next day at an ATM in California.

How is Redeem made?

- Clean Energy captures and extracts methane gas from its landfills and other waste streams. The methane gas is then processed, purified and sent into the interstate natural gas pipeline and made available exclusively to Clean Energy customers.

What types of vehicles can use Redeem?



- Any natural gas vehicle from a taxi to an 18-wheeler can use Redeem, whether CNG or LNG. Redeem can meet 100% of the fueling requirements of any natural gas vehicle.

How much does Redeem cost?

- Redeem can be offered and sold at a discount of \$1.00 or more per gallon compared to current diesel and gasoline prices.
- Clean Energy is currently selling Redeem at its California stations on an “as available” basis at the *same price* as conventional natural gas.

Where are Clean Energy’s current renewable natural gas plant locations?

- Clean Energy owns and operates biomethane production facilities at the Sauk Trail Hills landfill in Canton, Mich., and the North Shelby landfill in Millington, Tenn. Each of these facilities can produce 20,000 gasoline-gallons equivalent of biomethane daily.
- Additionally, Clean Energy also procures biomethane from third party producers and markets and distributes the biomethane as Redeem through Clean Energy’s natural gas fueling infrastructure.