



## **New Report Examines How Waste Fleets Can Become More Sustainable**



[Waste360 Staff](#) | Dec 23, 2021

Even though the heavy duty truck fleets comprise only 4 percent of U.S. vehicles, they consume 20 percent of all vehicle fuel, according to a new report by Energy Vision.

The impact of the 180,000 trash trucks currently in operation on carbon neutrality and alternative fuel efforts is analyzed in *The Refuse Revolution*.

"These essential workhorse vehicles make a critical contribution to the quality of life in our cities and towns," the report stated. "But today, with concerns over how to improve urban air quality, how to reduce transportation's climate impacts, and debates over low-and no-carbon vehicle technology, fleet owners/operators are grappling with challenging decisions."

A lifestyle assessment with considerations for greenhouse gases emissions and alternative, non-petroleum fuel options is examined throughout the report.

The 62-page document covers three primary areas:

1. The environmental, health and climate impacts of diesel refuse trucks;
2. The alternative technologies and fuels and the extent to which each reduces or eliminates the negative impacts of petroleum diesel; and
3. The cost, practicality and performance of these options, including short case studies for each.

Throughout the report, various types of alternative fuels are examined.

"'Lifecycle' analyses of fuels and technologies are essential to understanding and evaluating their respective climate, environmental and public health impacts. In reality, when using lifecycle accounting metrics, there is no such thing as a "zero emission" vehicle; every fuel/technology creates climate, environmental and public-health impacts, and each comes with trade-offs," the report stated.

Findings show that renewable natural gas is the most viable option based on cost, environmental impact and resource utilization. RNG manufactured from food waste, animal manure, and other types of organic wastes aid in landfill diversion and cuts GHG emissions from 50% up to 300% when compared to diesel.

"RNG is a double climate-change-winner. First, its production involves trapping and refining the methane biogases that are emitted by decomposing organic wastes, which would otherwise escape into the atmosphere with a potent climate warming impact," the report explained. "It is the only fuel that sequesters methane, now recognized by the IPCC and many prominent scientists as the top-priority greenhouse gas to cut in the decade ahead to meet US and global climate change goals."

While electric refuse vehicles (EV) also are a viable option, the industry is a long way from converting fully to EV because of cost and other considerations.

Renewable diesels made from waste oils and organic feedstocks also provide an alternative. Options such as hydrogen fuel are examined, but the process to split hydrogen atoms is energy intensive and costly.

"The technologies and fuels needed for the United States to transition to a sustainable economic future must be derived from renewable, pollution- and carbon-free sources of energy," the report stated.