

Can Waste Cooking Oil Become Fuel?

The vast majority of the world's environmental scientists and experts are in agreement that in order to combat climate change and prevent global warming from surpassing the catastrophic ceiling of a 2°C global temperature rise, it's necessary to transition away from damaging fossil fuels such as oil and gas – as soon as possible.

That means that the transportation industry has its work cut out to move away from the traditional combustion engine model. While research is ongoing into alternatives such as hydrogen-powered vehicles and lithium-ion batteries for EVs, biofuels can provide an important transition fuel. Waste cooking oil is an underappreciated source of fuel – but its benefits are being made clear by one Emirati company.

Lootah Biofuels lead the way

Founded in Dubai in 2010, Lootah Biofuels has grown from a sustainably-minded startup to a pioneer of the biofuel industry in the Gulf region. From its 10 largest partners, the company currently receives over 160,000 litres of cooking oil which would otherwise go to landfill each month.

The Americana Group is by far the biggest contributor, responsible for almost two-thirds (64%) of the total oil collected, while Majid Al Futtaim (10%) and Atlantis at the Palm (6%) are other leading clients. Other notable names on Lootah's books include the Rotana Group, the Jumeirah Group and the Chinese Palace Group. Many of those companies have been with Lootah since its inception over a decade ago.

However, its CEO Yousif bin Saeed Lootah is not content to rest on those laurels. He is planning to open a new processing plant in Abu Dhabi later this year, which is expected to expand the company's production capacity from 60 million litres of biofuel each year to 100 million litres per annum. Of course, the company will continue to seek out new clients and expand its network in order to accommodate its heightened capacity.

Manifold advantages

Substituting traditional combustibles for biofuels carries with it a number of attractive advantages. Firstly, the holistic service provided by Lootah means that restaurants, bakeries and other commercial kitchens do not have to worry about disposing of their waste oil. Often, this can contribute to water, soil and air pollution when improperly managed, so the knock-on effect on wildlife – not to mention fragile wastewater systems – is potentially huge.

Secondly, the combustion of biofuels derived from waste cooking oil is preferable in terms of the emissions it entails since no new drilling, extracting, refining and processing needs to

take place. This not only keeps fossil fuels in the ground, but also squares the circle of a circular economy, turning waste into fuel.

Finally, the unique composition of the oils used in Lootah's operation make them ideal for lubrication of the vehicle's engine itself, thus extending its lifespan. What's more, they can also be used in the vast majority of existing engines with no need for modification, since most manufacturers construct engines that are compatible with a 5% blended biodiesel. Taking all of those reasons into consideration, it's clear that cooking oil cannot just serve as a viable fuel feedstock, but actually makes fantastic intuitive sense from an environmental standpoint.