



Why Is Abu Dhabi Collecting Cooking Oil?

Starting next year, Abu Dhabi is set to begin collecting used cooking oil from homes, restaurants and other commercial premises for use in its new biofuel plant. Operated by the emirate's waste management centre Tadweer, the scheme aims to cut waste and create a new fuel source all at the same time.

Homeowners will be issued with special containers in which to store their used oil, which will then be collected by a local recycling company and delivered to Tadweer's Waste to Energy Plant. Meanwhile, hotels, restaurants and other businesses will also be asked to make arrangements to participate in the scheme.

Big plans

Tadweer already has experience in refining waste products into base oil, having first pioneered the conversion of lubricant oil into a useable commodity in 2010. But with [biofuels having evolved significantly over the years](#), the company is now keen to maximise its outreach and recycle as much waste as it possibly can.

Indeed, the company has set an ambitious target of recycling 80% of all solid waste from municipal sources (such as leftover food) by 2030. It also aims to treat all of the emirate's hazardous waste by the same date. Given that as many as 2.5 million tonnes of refuse are generated by Abu Dhabi citizens every single year, achieving that objective would be no mean feat.

From oven to aeroplane

One potential application of the recycled oil could be for use as aviation biodiesel. The introduction of the Carbon Offsetting Reduction Scheme for International Aviation (CORSIA) occurred in 2016, with the scheme coming into force in January 2019. From that date, all airlines became obliged to report their carbon emissions, eventually halving them by 2050.

Some of the biggest names in the aviation industry have already taken steps to do so. British Airlines, for example, use low-carbon fuel on some of their flights, while others such as Air France, Air New Zealand, Etihad and KLM have investigated the use of biofuels in aviation. The regular supply of biodiesel created from household and commercial cooking oil could add to the burgeoning sector.



Creating energy from waste

The Tadweer plant is currently undergoing construction with help from Emirates Water and Electricity Company (EWEC), which is itself a subsidiary of Abu Dhabi Power Corporation. Once operational, it is expected to have the capacity to process around 800,000 tonnes of waste from Abu Dhabi sources and a further 350,000 tonnes from Al Ain.

The landfills and dumpsites operated by Tadweer received a staggering 4.25 million tonnes of waste in 2020. By opening a waste-to-energy plant and commissioning recycling schemes like the used cooking oil one, it aims to reduce the volume of waste handled by its sites going forwards.