



Can Waste Be Used for Power?

The UAE has unveiled plans to build the first waste-to-power stations in the Gulf region. Capable of turning household waste into electricity, the plants will help alleviate the problems of landfill saturation and over-reliance on fossil fuels in one fell swoop, with major developments in the pipeline in the emirates of Dubai and Sharjah.

The announcements follow hot on the heels of the UAE's declaration that it will become carbon-neutral by 2050. Given that it currently relies on fossil fuels for over 90% of the power it consumes, as well as a significant chunk of its economic stability, diversifying its energy portfolio is imperative – and waste could provide an alternative source of fuel.

Ballooning needs

Over the course of the last few decades, the UAE has swelled exponentially in size. In 1990, it was home to just two million people; today, the population has ballooned to 10 million Emiratis and ex-pats, while the rapid development of its industrial and business sectors has seen power consumption skyrocket by a factor of 750 within that timeframe.

Indeed, the country uses more energy and creates more power per head than most other nations on the planet. It's estimated that within the next 20 years, landfills will cover 5.8 million square metres in Dubai alone, unless alternative solutions can be found. That's where the new waste-to-power plants come into their own.

Major projects planned

A Dubai power station is being scheduled for completion by 2024, at which time it is likely to be one of the largest in the world. With an estimated price tag of \$1.2 billion, it will have the capacity to process some 1.9 million tonnes of waste per annum, which is equivalent to almost half of all the waste produced in the emirate.

Meanwhile, a project in neighbouring Sharjah is expected to become operational by the end of this year. Though smaller in size, the plant should be able to handle around 300,000 tonnes of waste each year, which will provide enough electricity to light and heat 28,000 homes.



Regional leader

The announcements come as COP26 is underway in Glasgow. Nations around the world are bringing forward their own proposals for reducing pollution and combatting climate change. But while hosts Great Britain are introducing initiatives like [clean air zones](#) and phasing out coal-fired power stations, the UAE is a regional leader in its own right.

Not only will the Sharjah facility become the first of its kind in the Gulf, but the UAE was also the first country in the Middle East and North Africa (MENA) region to set a net-zero target. It hopes to achieve that through steady investment in renewable technology, including the opening of the region's first nuclear power station, too. Initiatives like this and the Sharjah and Dubai waste-to-power plants can keep it on track to meet its ambitious goals in the years ahead.