

Energy from waste plant market: China leads the pack but Europe is catching up

Preliminary figures show a decline in worldwide award volumes in 2020

(WW) – China remains the leading market for new energy from waste (EfW) capacity by quite some margin, the latest survey from the Swiss consulting firm A. Vaccani & Partners reveals. It is also evident that the European plant market is rebounding. After years when the UK was the only market in which substantial orders for new EfW capacity were placed, the plant market has now picked up in many other European countries, too, such as Germany, France and Russia.

Altogether, Vaccani reported that 109 contracts were awarded for new EfW plant construction or upgrades worldwide last year. These projects will create around 82,000 tonnes of daily capacity. This is a marked decrease compared with the two preceding years. Vaccani counted 127 contracts in each of the years 2018 and 2019, adding 131,000 and 113,000 tonnes of daily capacity, respectively. The consulting firm cautions that a year-on-year comparison is not very meaningful since information about projects in China was submitted late and not in full. Vaccani had had to retroactively raise 2018's figure by almost 30,000 tonnes per day.

The Zurich-based company has drawn up annual reports exploring the market for EfW treatment plant capacity since 2002. The current study, updated in mid-April, follows their established pattern: Vaccani again compiled data on new EfW capacity added in the past ten years and specifically for the period from 2018 to 2020 based on reference lists and other information from technology suppliers. Projects involving work to significantly modernise existing plants, for instance to replace a grate, were included in the list and the capacity given a 50 per cent weighting. As in the previous year, Vaccani rates the accuracy of its findings for 2020 at between 70 per cent for China and 95 per cent for Europe.

Vaccani has so far identified 63 new EfW projects in China to add around 53,000 tonnes of daily treatment capacity in 2020. One year earlier, 98 contracts had been awarded for around 96,000 tonnes of daily EfW capacity, according to their revised figures for that year.

Russia was the leading European

market for EfW plants in 2020

The study found that Europe was the second-largest market for EfW plants with a share of around 22 per cent of the world's new orders in 2020. In addition to the UK – long the most important waste to energy (wte) market in Europe – where Vaccani counted six new contract awards involving a total daily capacity of 5,700 tonnes in 2020 – there were three new projects in Russia with a combined capacity of almost 7,100 tonnes per day that stood out.

Vaccani reported two new contracts in France covering a combined daily thermal treatment capacity of almost 700 tonnes. In Germany, one contract was awarded to generate energy from about 900 tonnes of waste each day. In 2019, three orders for 1,300 tonnes of daily EfW capacity had been placed in Germany. The survey also identified a whole raft of individual projects in Poland, Sweden, Finland, Austria, Switzerland and Italy last year – each with an EfW capacity of between 400 and 900 tonnes per day.

In addition to data about order volumes, the study continues its practice of providing separate analysis of the market shares held by the major waste to energy technology providers. According to Vaccani's most recent assessment, the Chinese firm CIS Chongqing Iron & Steel Group – a licensee of the German technology provider Martin – again secured the largest order volumes in the past three years. Between 2018 and 2020, this firm had an average market share of 21 per cent. China Everbright took next place with 16 per cent, followed by the Hitachi-Zosen licensee Shanghai SUS with 13 per cent.

In terms of the EfW technology used, the market share held by the Japanese group Hitachi Zosen with its subsidiary Hitachi Zosen Inova (HZI) and Chinese licensees Shanghai SUS and Wuxi Boiler even reached a peak of almost 29 per cent in the past three years. The market share held by companies using Martin technology – including CIS and partners CNIM and MHIEC – stood at 24 per cent. Vaccani reported that manufacturers active in the EfW technology business had an order backlog representing around 251,000 tonnes of daily treatment capacity at the end of 2020 – the third-highest figure in the past decade after 2018 and 2019.

The Worldwide Market Share Analysis of Thermal Waste Treatment Plants, 2021 Edition can be ordered from A. Vaccani & Partner AG by visiting www.avp-group.net.