

CNIM Energy Plant

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Old incinerator site now producing energy from everyday waste

Design and construction of the new Waste to Energy Plant on the old Portsmouth incinerator site has resulted in a capability to provide enough energy for 14,000 homes every hour through burning our everyday non-recyclable rubbish. The plant was the third in a series that French specialist contractor CNIM supplied for Hampshire Waste Services and is capable of burning 24 tonnes of rubbish every hour.

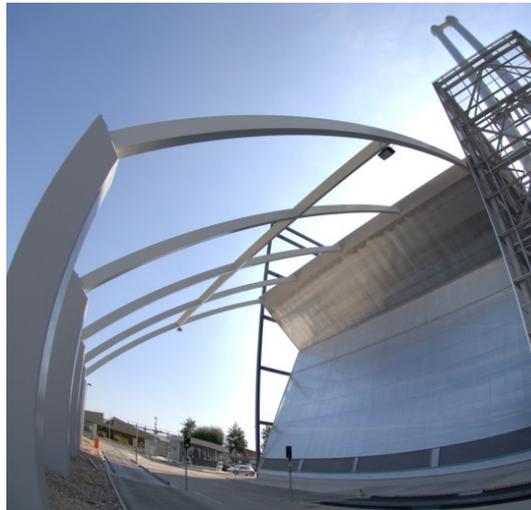
In partnership with our specialist design consultant, we were responsible for the design and construction of piling and foundations, civil engineering works, the superstructure, roads and external ancillary buildings.

The complex multi-discipline scheme included extensive liaison with the specialist energy contractor and technology suppliers to integrate the various works packages and ensure our customer achieved best value for their asset. Our Integration Strategy ensured a seamless interface with all data and process systems, providing clear and timely project information for our customer, designers, specialist supply partners and third party stakeholders.

Innovative architectural vision

Each of the three plants being provided for Hampshire Waste Services had its own unique architecture.

The architecturally striking building at Portsmouth is comprised of an innovative blending of concrete and steel frame with bespoke cladding to provide insight to the form and function of the sustainable energy generation solution. Two elevations are clad in clear plastic panels so the plants boilers are visible, especially when they are operational overnight and the building is illuminated from within.



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TOP: Replacing the old Portsmouth incinerator site

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Aside from the transparent main building, the geometrically intriguing Portsmouth Plant reaches 30 metres high with two chimneys 60 metres high.

The main plant works comprise a tipping hall, boiler plant ash storage, gas cleaning plant and air-cooled condensers, turbine and electrical building, workshop buildings, weighbridges, wastewater treatment pit and gatehouse. Additional buildings constructed included the administrative block, access roads, access ramp to the tipping hall, a new weigh bridge and car parking.

Integrated design and project strategy

Our fully integrated Design and Project Strategy was crucial in dealing successfully with sophisticated architectural proposals and process requirements. Clear coordination and communication between the architect and our design partner ensured full compliance of the component parts of the design, also working closely with our specialist suppliers to ensure buildability and interdisciplinary checks through all phases of the project lifecycle.

Early consideration of the M&E and process elements ensured that clear duct and service routes were incorporated into the architectural and structural designs, thus preventing poor detailing compromising the final appearance and abortive works to post-fit. At the same time we ensured that architectural requirements did not compromise the safe and whole-life cost of the build and maintenance programme.

Strict tolerances were defined and achieved to ensure right-first-time precise interfacing with the intricate elements of the energy generation plant.



TOP: Operational energy plant

BOTTOM: Structure reaching 30 metres high