

Southport, UK

Size: 9 MWe + 2.5-3 MWe

Project status: In development

Background:

The site currently has planning permission for a waste recycling facility, converting 80,000 tonnes of MSW into 6m cubic metres of biomethane, for injection into the gas grid. Through CHP engines, the plant will also pull gas from the grid to generate 9MWe for export to the grid. The Phase 2 would see Advanced Gasification Technology to transform 25,000 tonnes of RDF per year, into an estimated 2.5 - 3.0MWe of clean electricity, as well as potential for syngas-to-hydrogen technology.

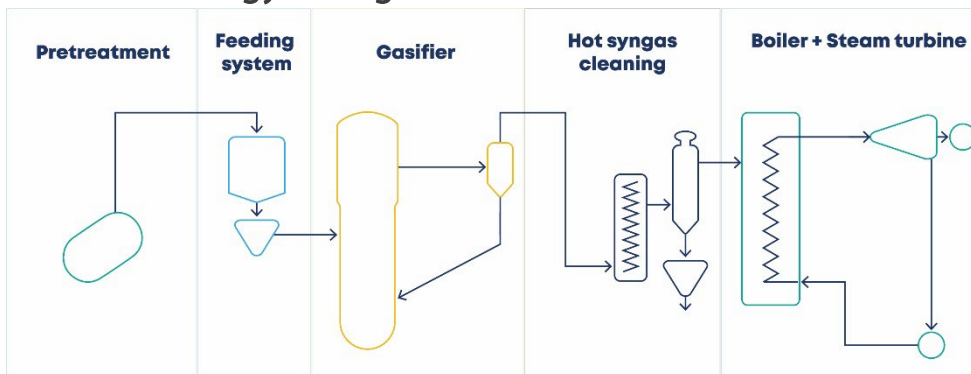
More information:

Our role: We are co-developer and gasification technology provider of the project, working closely in partnership with Rotunda Group and its subsidiary Shankley Biogas at Watts Industrial Estate, Southport Hybrid Energy Park, Merseyside, UK.

The plant is currently making progress at earlier stages, including:

- ✦ Ongoing discussions with potential funders and co-developers
- ✦ Forming partnerships with Anaergia for the anaerobic digestion facility and Wood for a potential syngas-to-hydrogen solution
- ✦ Completing technical due diligence with technology insurance providers
- ✦ Signing a Share Purchase Agreement to acquire full ownership of the project
- ✦ Site update – June 2022: With our partners we have identified the potential for an additional gasification facility near to the current Southport site. We have selected Wood as our technology partner for design and deployment of a clean, waste-to-hydrogen solution during Phase 2 development of the multi-technology project. Together, the full plant facilities are expected to export to the grid the equivalent of 20% or more of Southport's energy requirement.

RDF-to-energy configuration:



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Technical specification

Location	Merseyside, UK
Size (MWe / MWth size)	9 MWe plus 2.5-3 MWe
Electrical efficiency	c25 % (tbc)
Total efficiency (electrical & thermal)	tbc
Feedstock	Municipal waste plant
Feedstock throughput	c.55,000 tonnes per annum
Engine	tbc
Operating temperature range	800 – 830 °C
Commission / Due Date	tbc
Type (Commercial/R&D Pilot)	Commercial
Category (biomass-to-energy, biomass-to-bioenergy, RDF-to-energy)	RDF-to-energy
Applications (Electricity, thermal, biochar, biofuels)	Electricity, biogas, hydrogen