



CASE STUDY

PLANNING FOR AN ANAEROBIC DIGESTION PLANT

CLIENT: CONFIDENTIAL

LOCATION: UK

HIGHLIGHTS

- Modular AD system
- Distillery Effluent Reuse
- Onsite Bioenergy
- Waste-to-Energy

THE CHALLENGE

Our client, a bespoke modular AD development, needed to utilise waste effluent from distillery process at independent distillery. The AD process will generate heat energy that will circulate back to be utilised in the Distillery process. The use of distillery waste effluent on-site will negate the current process of shipping waste by road tanker to port for disposal of the island.

The bespoke modular system is suited to remote and island sites, for the following reasons:

- The process converts unwanted liquid residues into bio-energy for use on the site,
- It will reduce carbon emissions from effluent disposal and replace fossil fuel energy,
- This avoids off-site disposal of energy bearing residues, reducing transport needs,
- The supply of bio-energy will be linked to production requirements in the distillery.



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Clean water treated discharge from the AD plant will feed a nearby bespoke Ecological Treatment System (ETS) developed by Living Waters Ecosystems Ltd. The ETS essentially creates a new wetland habitat with enhanced biodiversity.

The ETS is located within a pocket of land surrounded by various statutory designations, including SSSIs and being next to a Ramsar site. NatureScot raised significant concerns relating to potential impact of development on white fronted geese and corncrakes, in particular. The site of the ETS is one of high sensitivity and careful planning and design, as well as adopting an innovative response, was required to satisfy both NatureScot and the LPA through demonstrating the level of potential impact was negligible.

THE SOLUTION

The Arthian team undertook direct engagement with statutory consultees and local planning authority, and working with the project team, to work out a solution through draft planning conditions that would allow development to proceed.

LPA agreed to share draft wording for planning conditions which was revised through consultation with statutory consultees to secure a workable solution, alongside more intensive engagement with NatureScot with regards to their recommended planning conditions and the level of control exerted over the development.



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