Non-Technical Summary for Permit Variation

Waste4Generation Corby is a research & development site with a high-rate anaerobic digestion system specialising in developing sustainable methods of treatment for various waste streams and increasing efficiency within in the anaerobic digestion process. Through our decades of work within anaerobic digestion, our research has guided us to develop optimised feedstock for AD plants.

The next stage of development of our site, we are looking to curate individually blended feedstock, which is specifically tailored to the recipient site. This could be in regard to trace nutrient needs, proteins etc, required to provide their digesters with what is required, and reducing the transport of water / poor quality waste streams around the country. Part of our process is to de-water weak effluents, to retain the calorific material for feedstock and treat the watery fraction onsite. Tailored waste streams to their retention time, dry solids requirements, optimising destruction rates and methane quality.

In addition to blending feedstock, we plan to continue to trial difficult to treat waste streams via our high-rate AD facility. With the addition of nanobubble and ozone polishing, we are looking to further treat and polish our waste streams following our AD plant for trade effluent discharge (and meeting consented limits). This should help us to establish onsite treatment solutions for waste streams as well as centralised treatment.

Waste4Generation Corby are looking to expand our current facility and amend our operations in the following ways:

- Upgrade the site to an installation and increase our daily capacity to 300m^3/day.
- Increase our Anglian water discharge consented limit to 300m^3/day.
- The receiving, de-watering & blending of waste streams/feedstock to produce high quality AD feedstock, with up to 300 m3/day of prepared feedstock leaving site per day (to maximise back-filling of tankers and minimising tanker movements).
- Additional processing within the warehouse for R&D purposes plus continued FOGs & complex wastes processing and optimisation.
- Continue to optimise the FOG process to provide an alternative and sustainable feedstock AD.
- Addition of a solids treatment bay to receive solids such as fruits, for which additional COD & solids can be extracted. Contained & enclosed system.
- Onsite leachate & complex waste treatment as proof of concept that we have a treatment process that can achieve AW consented discharge limits and by integrating our existing processes with Nano bubble technology make the process more cost effective and efficient.
- Introduction of nano-bubble polishing system for ozone treatment and additional tertiary / quaternary treatment of effluent. Addition of an odour scrubbing system (BAT)
- Addition of the following EWC codes to our permit:

EWC Codes to be Added to Permit	
19 07 03	19 12 12
16 01 15	16 03 06