Summary – This report concerns proposals to develop land between Attleborough and Great Ellingham for an anaerobic digestion unit. Key issues relate to potential effects on local amenity, landscape impact and traffic.

1. INTRODUCTION
This report concerns an application for full planning permission for the development of an on-farm anaerobic digestion unit on agricultural land to the north of Attleborough. The development would include a digestion unit, combined heat and power (CHP) plant, gas storage vessel and underground storage tanks, together with a silage clamp and a lagoon for the storage, respectively, of feedstock and digestate. A new access road is proposed from the digestion unit to the B1077.

Anaerobic digestion (AD) is the process whereby bacteria break down organic material in the absence of air, producing a biogas containing methane. As well as biogas, AD produces a solid and liquid residue, called digestate, which can be used as a soil conditioner and fertiliser. AD is a well established renewable energy technology which was been widely used elsewhere in Europe.

The anaerobic digestion unit proposed here would utilise green crops grown locally, manure from the adjacent turkey farm, cattle slurry from local farms and brewer’s grains from Suffolk to produce biogas. This would be used to fuel a Combined Heat and Power (CHP) plant, producing electricity (for the National Grid) and heat (for the digester and adjacent poultry farm). The digestate would be used to produce fertiliser for use on the farm.

The application site is located within an area of generally open countryside just to the north of Attleborough. Development in the immediate vicinity is sporadic in nature and includes a number of residential properties, farms and business premises. St Luke’s Hospital (formerly Wayland Hospital) is located to the north-west. The application site is separated from the northern outskirts of Attleborough by the A11 bypass, agricultural land and the adjacent poultry farm.

The application is supported by a Design & Access Statement, an Environmental Statement, a Landscape Assessment, an Ecological Assessment, an Air Quality Assessment, a Transport Assessment and a Noise Report.

2. KEY DECISION
This is not a key decision.
3. **COUNCIL PRIORITIES**
The following Council priorities are relevant to this report:
- A safe and healthy environment
- A well planned place to live and work

4. **CONSULTATIONS**
Attleborough Town Council has raised no objection to the application.

Great Ellingham Parish Council has objected to the proposal on the grounds that the development would result in an unacceptable increase in traffic and cause harm to the local environment, particularly as result of smell and flies.

The Highway Authority has raised no objection in principle to the proposed development, but some concerns have been expressed about visibility for turning vehicles on the B1077. Further comments are awaited following the receipt of additional information.

The Environment Agency has objected to the application on the grounds that the proposal would pose an unacceptable risk of pollution to ground water and could generate odours likely to harm the amenities of local residents. Further comments are awaited following the receipt of additional information.

The Council’s Tree & Countryside Officer has asked that detailed landscaping proposals are submitted in support of the proposals.

The Council’s Senior Planning Policy Officer has noted that PPS 22, Policy ENG.2 of the East of England Plan and Policy DC15 of the emerging Core Strategy support, in principle, the development of renewable energy projects. Policy DC15 requires consideration to be given to the impact of development on rural landscapes and residential amenity.

Comments are awaited from the Council’s Environmental Health Officer.

The proposed development has given rise to a good deal of local interest. At the time of writing in excess of 70 representations had been received objecting to the application. Objections raised relate principally to smell nuisance, flies/vermin, noise, increased traffic and drainage.

5. **POLICY**
Relevant national planning policy can be found in PPS 1 ‘Delivering Sustainable Development’, PPS 7 ‘Sustainable Development in Rural Areas’ and PPG 22 ‘Renewable Energy’. PPS 1 notes that the use of renewable energy sources is an important element of the Government’s sustainable development strategy. PPS 7 encourages the diversification of farming operations, including the use of renewable energy crops. PPS 22 indicates that the wider environmental benefits of renewal energy projects should be given significant weight in the determination of planning applications.

At a regional level, Policy ENG.2 of the East of England Plan supports the development of renewal energy. Policy DC15 of the Core Strategy supports renewable energy proposals subject to criteria relating to landscape impact, residential amenity and conservation of ecological/heritage interests.
6. ASSESSMENT
The principal issues raised by the application concern: i) the impact of the development on the rural landscape, ii) the effects of the proposals on local amenity due to smell, noise, etc, and iii) highway safety.

Landscape impact
Core Strategy Policy DC15 supports renewable energy projects subject to certain criteria, including landscape impact. Policy CP11 requires rural landscapes to be protected in order to maintain their appearance and ecological/historic value. The landscape on the northern fringe of Attleborough has been identified as being of moderate sensitivity in the Council’s Landscape Character Assessment Settlement Fringe Study (2007).

The proposed anaerobic digester would be located in part of a large arable field set within a gently undulating rural landscape. Although the buildings and structures proposed would occupy a relatively large footprint, the overall height and bulk of the development would not be a significant factor. The tallest structures (the CHP plant flue, digester and gasometer (6-9 metres)) would be located at the lower end of the site and would be partly set into the slope of the land. Earth bunding around the proposed silage clamp and lagoon would vary in height up to a maximum of 4.4 metres above ground level and would be graded to blend with the surrounding landscape.

From the south and west, the proposed development would be well screened by existing trees/hedgerows and by adjacent existing poultry farm buildings. From the north and east, the development would be more exposed, although the impact would offset to some extent by distance, the local topography and by proposals for additional landscaping. The proposed plant would be located in a relatively low point in the landscape and would be partly set in the slope of the land. The proposed development would be located approximately 200 metres from the nearest public road. New field boundary hedging and two small copses are proposed to help assimilate the development into the landscape and promote biodiversity. This landscaping would also reflect the locally characteristic field pattern of a patchwork of small to medium sized fields defined by native hedgerows.

Overall, it is considered that, subject to the proposed landscaping, the proposed development would not have a significantly adverse effect on the surrounding rural landscape. The proposal would therefore accord with local planning policy in this respect.

Local amenity
Core Strategy Policy DC15 supports renewable energy projects provided that they would not have a significantly adverse effect on local amenity. The nature of the proposed development is such that it has the potential to impact on local residents due to increased smells. Representations received indicate that problems of smell nuisance are major source of concern to local residents. The Environment Agency has noted that commercial anaerobic digesting operations are known to have generated odour leading to complaints from local residents.

In order to address issue of local amenity, an Air Quality Assessment has been submitted with the application, together with a Noise Impact Report. Additional information has also been provided in response to concerns raised by the Environment Agency in relation to odour management controls. Although anaerobic digestion is essentially a sealed process, there are a number of associated operations which have the potential to generate odours. Potential sources of odour
emissions include the storage of green crops/manure with the silage clamp, transfer of this feedstock to the digester, storage of the end substrate and the operation of the gas fired CHP plant. A number of odour management measures proposed to address potential emissions from these operations. The submitted Air Quality Assessment concludes that the impact of the proposal on nearby residential properties will be minimal, due to low levels of odour produced and separation distances. Further advice from the Environment Agency and the Council’s Environmental Heath Officer is awaited in relation to potential smell nuisance issues.

As far as noise and dust emissions are concerned, based on the information provided, it is not considered that the proposed development would result in any noticeable impact on nearby properties.

Highway safety
Access to the proposed anaerobic digester plant would be gained via new access road linking the site to the B1077 via an existing side road loop. The loop road currently provides access to St Luke’s Hospital and several residential properties. The digester would also be linked to the internal road network of the existing farm.

Concerns have been raised by local residents about increased traffic movements generated by the proposed development and potential effects on the local road network. The Highway Authority has raised no objection in principle to the application, but has expressed concerns about visibility for vehicles turning off the B1077. Additional information has been provided by the applicant on this point, and further comments are awaited from the NCC.

Traffic movements associated with the proposed development would result from the delivery of green crops, brewers’ grains and manure by farm vehicles and HGVs. Information provided by the applicant indicates that the maximum number of movements would be approximately 1,908 per annum. This takes account of the fact that some green crops would be delivered directly from the farm. Traffic movements would vary seasonally with the production of green crops. Peak flows of 12 movements per day would occur during September and October, whilst movements would reduce to 2 per day in the winter months (December-March). Vehicle counts on this stretch of the B1077 show a daily average of more than 6,000 vehicle movements.

Based on the information provided, it is considered that the level of traffic likely to be generated by the proposed development would not have any significant impact on traffic conditions on local roads. Subject to any further comments from the Highway Authority in relation to visibility, it is considered that the proposed would not be detrimental to highway safety.

Other matters
Concerns have been raised by the Environment Agency about potential pollution of ground water from the proposed storage lagoon, particularly given that the site overlies a major aquifer. In response the applicant has stated that proper pollution control measures will be put in place and suggests that the implementation of environmental management systems could be required by planning condition. It is also noted that the proposed operation will be controlled by an Environmental Permit. Further comments on this matter are awaited from the Environment Agency.

It is not considered that the proposed development will have an adverse effect on the ecology of the area. No protected species or habitats have been identified with the development site, and there are no statutory nature conservation designations in the
locality. The proposals would not result in the loss of any existing trees or hedges. As noted above, proposals for new hedge and woodland planting would have a positive effect in terms of habitat creation and providing wildlife corridors.

Conclusion
The proposed development would accord in general terms of local and national planning policy which encourages the development of renewable energy projects. In terms of the specific effects of the proposal it is considered that the development would not have any significantly adverse effects on the appearance of the rural landscape or on traffic conditions on local roads. Provided that the potential smell nuisance problems can be properly managed to avoid harm to local amenities, and adequate pollution control measures introduced, it is considered that the proposed development would be acceptable. However, at the time of writing, consideration of this matter is on-going, with further expert advice awaited from the Environment Agency and the Council's Environmental Health Officer. Given that this issue is critical to any decision on the application, it is not considered appropriate to make a formal recommendation at this time.

7. RECOMMENDATION To follow.