



## Regulatory and Other Committee

### Open Report on behalf of Richard Wills Executive Director for Communities

Report to:	<b>Planning and Regulation Committee</b>
Date:	<b>4 December 2013</b>
Subject:	<b>County Matter Application - (E)S186/1583/13</b>

#### **Summary:**

##### Supplementary Report

Planning permission is sought by R.H-J (Farms) Ltd (Agent: Robert Doughty Consultancy Ltd) for a proposed Anaerobic Digestion Plant at Grange Farm, Fen Road, Toynton St Peter, Spilsby.

#### **Recommendation:**

Following the site visit on 25 November 2013 and in consideration of the relevant development plan policies, and the comments received through consultation and publicity, it is recommended that conditional planning permission be granted.

#### The Application

1. At its meeting on 4 November 2013, the Planning and Regulation Committee considered an application to site an Anaerobic Digestion (AD) plant at Grange Farm, Fen Road, Toynton St Peter, Spilsby. Following discussion on the application, Councillors resolved to undertake a site visit on 25 November 2013.
2. A copy of the detailed report on this application is attached hereto as Appendix B.
3. At the meeting on 4 November 2013, Committee Members requested further information and details in relation to the following: the access track; the movement of the slurry and waste around the site; identification of where the feed stock would come from; the treatment of surface water and potentially contaminated water at the site and; the removal of 60ha of land from food production.

### **Site Access Track**

4. Committee Members expressed concerns about the suitability and condition of the proposed access track to serve the development. In particular, these concerns related to the potential for mud to be deposited on Fen Road from the track. The applicant has since confirmed that the access track is within their ownership and, notwithstanding this planning application, it is intended to resurface the access track with concrete to Fen Road.
5. It is considered that a condition, requiring details of the surface of the access point to Fen Road addressed by a planning condition attached to any permission granted.

### **Movement of feedstock**

6. The slurry would be transported around the farm (and from the surrounding farms) by a tractor and trailer for the muck, and a tractor and bowser for the slurry. This would be no different from the existing situation, whereby slurry is stored in lagoons around the wider farm site and muck on the sides of the fields. The applicant has confirmed that there would be no HGV's involved in the operation.
7. A plan identifying the location of the farms, from where the feedstock would be sourced, is hereto attached as Appendix C. The furthest distance that feedstock would come from would be the maize from 40ha of land at Hall Farm, Raithby. This is approximately 5.7km to the north of the site and would be transported by tractor and trailer on the main highway, during the harvest period.

### **Surface Water**

8. The Committee raised concerns in relation to surface water drainage and the potential for contaminated surface water run-off. Attention is drawn to Paragraph 19(f) of Appendix B, which reports the comments of the Environment Agency and details a number of conditions they require to prevent pollution from contaminated water and surface water run-off. These conditions include that the digester tanks should have a butyl liner and leak detection system, and for all areas where waste is to be stored and treated, including the silage clamp, to be surfaced with an impermeable pavement incorporating a sealed drainage system. The report makes recommendations for these requested conditions to be included as part of the decision, and it is considered that the imposition of these conditions would address any concerns relating to potentially contaminated surface water run-off.

## **The removal of agricultural land from food production**

9. Councillors expressed concerns about the proposed 60 ha of land that would be used to grow the maize feed stock and thereby taken out of agricultural food production. The applicant has confirmed that 40 ha of the total area would be at Hall Farm, Raithby which is approximately 5.7km to the north of the site area and the remaining 20 hectares would be grown immediately adjacent to the AD plant site.
10. The applicant has stated that the land at Raithby is relatively poor quality (grade 3), and would be used exclusively for growing maize. In 2012 some of the land was used for linseed (biofuel), it is very sandy and does not hold moisture well. There was a very poor yield from the linseed and barley crop grown last year, due to the crop maturing early through poor moisture levels in the soil. The applicant argues that maize would be an ideal crop as it is drought resistant and would thrive on the sandy soils at Hall Farm.
11. The applicant submits that the amount of land given over to agricultural production in Lincolnshire is 484,219 hectares and the applicants 60 ha is equivalent to 0.0124% of Lincolnshires' total and approximately 8% of his own arable production area.
12. The Government's approach in relation to the use of agricultural land for the production of crops for use in electricity generation is set out in the UK Bioenergy Strategy (2012). This document acknowledges the potential impacts of the loss of agricultural land for food production to facilitate the production of energy crops however, it concludes that it is not anticipated that there would be any significant conflicts with food production objectives. It also states that Government policy should aim to maximise opportunities for improving energy crop supplies sustainably and that ways of removing barriers to energy crop production should be explored. In addition to this the National Anaerobic Digestion Strategy and Action Plan (2011) sets out the Government's commitment to on-farm AD plants, as set out above.
13. No further representations have been received since the Committee Meeting on 4 November 2013.

## **RECOMMENDATIONS**

It is recommended that the application is approved subject to the following condition, and those set out in the detailed report attached as Appendix B:

### **Condition**

13. No development shall commence until further details relating to vehicular access to the public highway, including materials, specification of works and construction methods shall be submitted to the Waste Planning Authority for written approval. The approved details shall be implemented on site before the development is first brought into use and thereafter retained at all times.

## Reason

13. In the interests of the safety of the public highway and the safety of the users of the site.

## Appendices

These are listed below and attached at the back of the report	
Appendix C	Farms Location Plan
Appendix B	Report Reference 8 to the Planning and Regulation Committee on 4 November 2013 relating to planning permission for an Anaerobic Digestion Plant at Grange Farm, Fen Road, Toynton St Peter, Spilsby

## Background Papers

The following background papers as defined in the Local Government Act 1972 were relied upon in the writing of this report.

Document title	Where the document can be viewed
Planning Application File (E)S186/1583/13	Lincolnshire County Council, Planning, Witham Park House, Waterside South, Lincoln
Planning and Regulation Committee Meeting Minutes – 4 November 2013	Lincolnshire County Council website <a href="http://www.lincolnshire.gov.uk">www.lincolnshire.gov.uk</a>
UK Bioenergy Strategy (2012)	Department of Energy and Climate Change website <a href="http://www.gov.uk">www.gov.uk</a>

This report was written by Sandra Barron, who can be contacted on 01522 782070 or [dev\\_pcg@lincolnshire.gov.uk](mailto:dev_pcg@lincolnshire.gov.uk)



# Appendix C

THIS DRAWING IS FOR THE  
PURPOSE OF OBTAINING  
PLANNING PERMISSION ONLY

*Evergreen*

**rdc**  
**Robert Doughty**  
**Consultancy**

32 High Street, Hologram  
© Statford, Lincolnshire NG24 0PA  
Tel: 01529 421646  
Fax: 01529 421388  
Email: admin@rdc-consultancy.co.uk  
Web: www.rdc-consultancy.co.uk

Client  
R.H. (Farms) Ltd.

Project  
Anaerobic Digestion Plant - Grange Farm

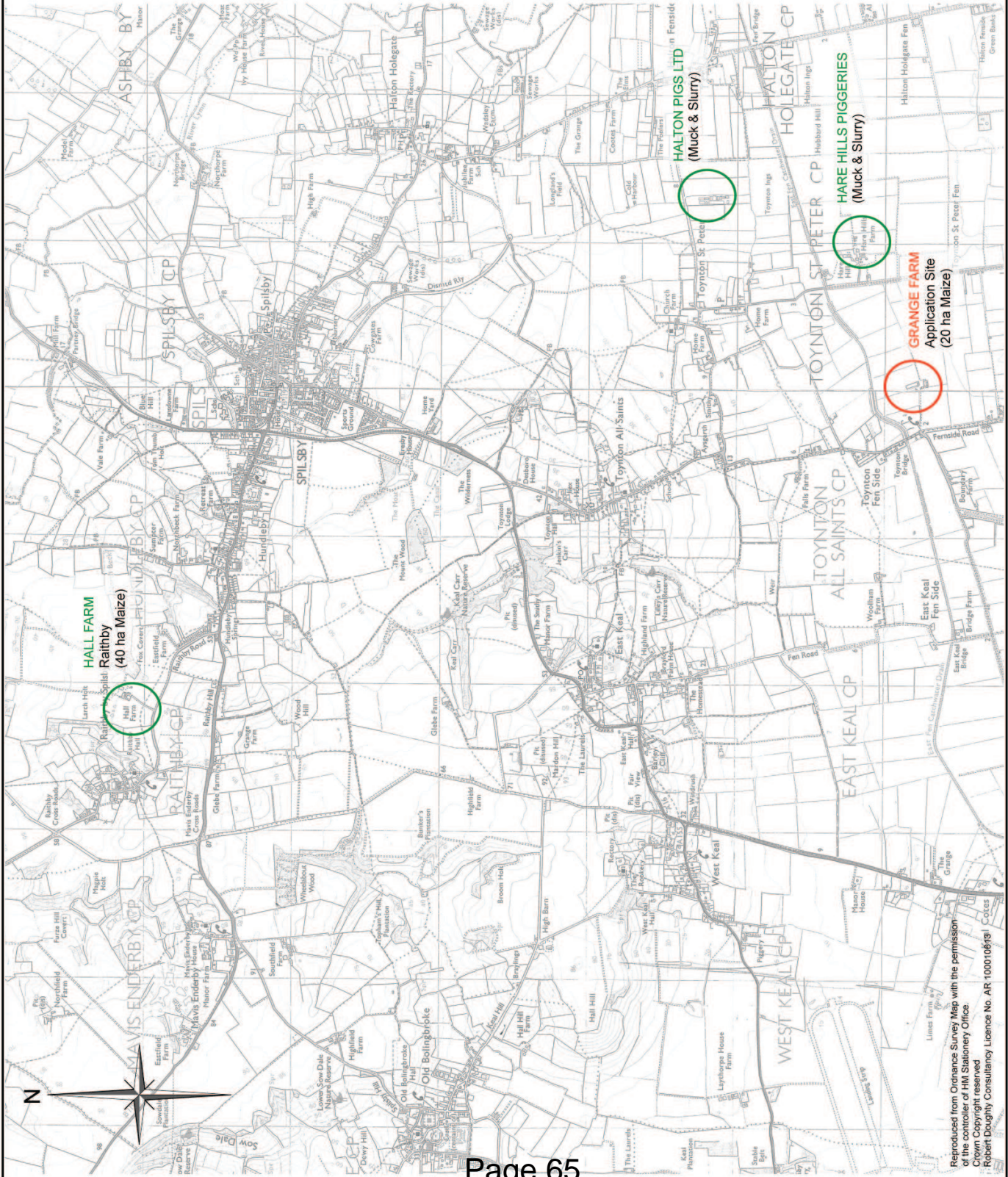
Drawing title  
Farms Location Plan

Drawing No.  
1071-01-02

Scale  
1:25000 @ A3

Rev. By Notes Date  
11/11/13

Checked  
LMS



Reproduced from Ordnance Survey Map with the permission  
of the controller of HM Stationery Office.  
Crown Copyright reserved  
Robert Doughty Consultancy Licence No. AR 1000106131





## Regulatory and Other Committee

### Open Report on behalf of Richard Wills Executive Director for Communities

Report to:	<b>Planning and Regulation Committee</b>
Date:	<b>4 November 2013</b>
Subject:	<b>County Matter Application - (E)S186/1583/13</b>

#### Summary:

Planning permission is sought by R H-J (Farms) Limited (Agent: Robert Doughty Consultancy Limited) for a proposed anaerobic digestion plant at Grange Farm, Fen Road, Toynton St Peter, Spilsby.

It is proposed to use pig slurry, animal bedding and purpose grown maize as feed stocks, from land in the applicant's ownership and nearby farms.

The main issues to be considered in the determination of this application are the visual impacts of the proposed development on its countryside location, highway safety and odour impacts.

#### Recommendation:

Following consideration of the relevant development plan policies and the comments received through consultation and publicity it is recommended that conditional planning permission be granted.

#### The Application

1. Planning permission is sought for an anaerobic digestion plant at Grange Farm, Fen Road, Toynton St Peter, Spilsby. The proposed plant would produce 250kW of electricity and 200kW of heat from the combustion of methane produced from the biological breakdown of maize, pig slurry and animal bedding.
2. The resultant electricity would be used by the farm or fed into the grid at the nearby connection point. The proportion of the heat that would be generated but not used in the digestion process may, depending on the financial implications, in the future be used at the nearby pig unit at Hare Hills Farm, which is in the ownership of the applicant.
3. The total feedstock proposed would be 13,500 tonnes consisting of 2,750 tonnes of maize, 3,750 tonnes of animal straw bedding/muck and 7,000



tonnes of pig slurry which would come from nearby farms, including Hare Hills Farm as follows:

- maize would be grown on approximately 60ha of farmland, owned by the applicant's company and would be stored in a clamp for use throughout the year. It would be sheeted to prevent oxidation, which would reduce the energy value of the feedstock;
- the pig slurry would be brought direct to the site, from the applicant's own farm and a neighbouring farm, and stored in a reception tank prior to being pumped into the digestion tanks;
- straw muck and bedding is proposed to be brought from the same two farms and used in the process.

#### The Anaerobic Digestion (AD) Process

4. The straw muck would be macerated and the rest of the feedstock treated, heated and fed into the two digestion tanks. The breakdown of the feedstock would produce biogas (methane).
5. The gas would be transferred to the gas holder at 38°. It would be condensed and cooled in the gas holder where it would remain for up to five hours. Thereafter, it would be piped to the CHP spark engine to drive the engine and generate electricity. In the event that the CHP engine is down for maintenance, preventing the normal operation of the engine, the gas would be redirected to a water boiler and burned to heat the water. The resultant hot water would be pumped through the digester tank to maintain the necessary temperature (38-40°), which would prevent the need for gas flaring.
6. The digestion time would be approximately 46 days, which would allow for the feedstock to be fully broken down, releasing the maximum amount of methane for capture and subsequent combustion. The process would be monitored by telemetry and alarms built into the system, that would ensure that the process operates efficiently.
7. There would be 12,800 tonnes of digestate produced, which would be put through a separate process to produce 10,300 tonnes of liquid digestate and 2,500 tonnes of solid digestate. Both the liquid and solid elements would be used on the applicant's land as a fertiliser and soil improver. The fibrous material would be spread straight onto the land as fertiliser and soil improver. The liquid fraction could be spread straight onto the land or injected directly into it.
8. The AD plant would consist of the following elements:
  - two flat digesters which would be parallel to each other, approximately 8m apart. They would be a maximum of approximately 48m long, 6.3m wide and 1.5m high and would be sunk 2m into the ground, and



constructed from concrete. There would be a solids feeder and macerator and drainage pump at either end;

- a circular gas holder, which would be a maximum of approximately 5.6m high and 8.5m in diameter and painted dark green;
- Combined Heat and Power (CHP) and Process building. This would be approximately 10mx10m and a maximum of 7m high, with a pitched roof and constructed in green plastic coated profile tin sheeting;
- an existing slurry reception tank which is approximately 21.7m in diameter, and 4.8m high;
- a separator for the digestate, which would be a maximum of approximately 4.2m long, 3m wide and 5.6m high;
- a slurry reception tank which would be dark green and a maximum of approximately 8.5m diameter, and 5.6m high;
- there is an existing area of hardstanding which is approximately 36m x 13m;
- a silage storage bay which would be 41m by 13m and surrounded by a 4m high grey concrete wall which would drop to 3.5m in height.

### Odour

9. The application states that the resultant digestate is stable and benign, as the anaerobic breakdown has effectively ceased. There would be no odour from the process, as the system has to be 'closed', in order to keep the oxygen out. Consequently, very little odour is produced and once the liquid and solid fractions have been separated out, they are ready to be applied to the land.
10. An odour management plan was submitted with the application, the main findings of which were:
  - the nature of the plug flow system allows for the four phases of the anaerobic digestion process to occur separately within the tank, this combined with the length of time in the plant results in a stable and benign digestate;
  - the proposed system would prevent hydrogen sulphate from being produced, which can produce a pungent odour;
  - the quality of the gas would be recorded once a week, as a minimum;
  - each independent dome on the digesters has its own isolation valve on the gas take-off pipe which would be closed in the event that the dome is removed, therefore ensuring that biogas is not released to the atmosphere.

### Noise

11. In terms of noise, the process is largely silent as it is a biological rather than mechanical process. The gas engine would be located within a purpose made building that would have sound attenuation to ensure that sound break out would be minimal. There would be machinery used at either end of the process, which would include the mechanical loading of maize and

muck feedstocks into the digester, and the removal of dry digestate from the facility. Both of these operations would use agricultural machinery, including teleporters and tractors and trailers. The loading would be carried out during normal working hours with a total throughput of 267 tonnes per week.

### Flood Risk

12. The site is within Flood Risk Zone 3 and therefore a Flood Risk Assessment was submitted with the application. The main findings of the report were that the site is within Zone 3a, according to the flood zone maps, which indicate that the site would be at risk from fluvial or tidal flooding without defences. The site has protection from fluvial flooding from the existing flood defences to the West Fen Catchwater, which are properly maintained to a 1 in 100 year standard of protection. The Drainage Board have no records of any history of flooding in the area from their drainage system which provides an adequate standard of protection from fluvial flooding.

### Vehicular Movements

13. The application states that the traffic associated with the proposal would be no different than at present, as the muck and slurry that would be used as the feedstock is currently brought to the site from two nearby farms.
14. There are 20 tanker loads of pig slurry per week that are taken to the slurry lagoons around the farms. Similarly, with regard to muck there are 20 loads per week that are taken to open storage areas around the farms prior to spreading on the land. As a result of the proposal, all these loads would be taken to the proposed AD plant area.

### Site and Surroundings

15. Toynton St Peter is approximately 2.5km south of Spilsby town centre. Grange Farm is located approximately 1.75km south west of Toynton St Peter and 0.75km south of Toynton Lings. The surrounding landscape is flat agricultural fenland interspersed with farm buildings and residential properties. The nearest residential properties include the property on the farm unit, which is approximately 330m to the west of the site; Chestnut Lodge approximately 470m south west of the site and Fendyke Lodge approximately 435m to the north west.
16. Grange Farm is accessed from a dedicated access track at a cross roads from Fenside Road, close to the residential property and also from Fen Road. The site is an irregular shape and is approximately 0.6ha. There is an access track to the north which links Fen Road with Fenside Road, beyond which is agricultural land. To the west of the site are a collection of agricultural buildings and sheds, which run the length of the boundary of the proposed site. Adjacent to these buildings is a group of mature trees and hedging. To the south and east is open agricultural land.

## Main Planning Considerations

### National Guidance

17. The National Planning Policy Framework (March 2012) (NPPF) sets out the Government's planning policies for England. Although the NPPF does not deal with waste policy, it does propose the creation of renewable energy as a core planning principle. It establishes the presumption in favour of development that is sustainable and gives strong encouragement to projects that lead to a reduction in greenhouse gasses (paragraph 95). Also the following policies are relevant:

Paragraph 97 states that support should be given to renewable and low carbon energy development while ensuring that adverse impacts are addressed satisfactorily, including cumulative landscape and visual impacts.

Paragraph 103 states that when determining planning applications local planning authorities should ensure that flood risk is not increased elsewhere and only consider development appropriate in areas at risk of flooding where informed by a site-specific flood risk assessment.

Technical Guidance to the NPPF- Table 3: Flood Risk Vulnerability and Flood Zone 'Compatibility', sets out the acceptability of uses in the different flood zones.

Paragraph 112 seeks to protect, and recognises the benefits of, the best and most versatile agricultural land, with poorer quality land to be used in preference to that of a higher quality.

Paragraph 120 seeks to ensure that consideration is given to the potential impacts on the amenities of local residents and other land users as a result of pollution.

Paragraph 123 seeks to prevent adverse impacts as a result of noise pollution.

Paragraph 186 states that local planning authorities should approach decision taking in a positive way to foster the delivery of sustainable development. The relationship between decision taking and plan making should be seamless.

Paragraph 187 states that local planning authorities should look for solutions rather than problems and decision takers at every level should seek to approve applications for sustainable development where possible. Local planning authorities should work proactively with applicants to secure developments that improve the economic, social and environmental conditions of the area.

Paragraph 215 of the National Planning Policy Framework (NPPF) (March 2012) states that following 12 months since the publication of the

Framework, due weight should be given to relevant policies in existing plans according to their degree of consistency with the Framework (the closer the policies in the Framework the greater the weight that can be given). This is of relevance to the Lincolnshire Waste Local Plan (2006) and East Lindsey Local Plan (1999).

Annex E of Planning Policy Statement 10 “Planning for Sustainable Waste Management” (2011) (PPS10) – sets out the locational criteria which must be considered in relation to the suitability of proposed sites. Of particular relevance to this application are the issues relating to visual intrusion and odour issues.

In addition, in the Government's National Anaerobic Digestion Strategy and Action Plan (2011), there is a commitment to increasing energy from waste through anaerobic digestion and confirmation on the contribution on-farm AD plants can make to this.

### Local Plan Context

18. The following policies of the Lincolnshire Waste Local Plan(2006) and East Lindsey Local Plan(1999) are relevant to this proposal and in conformity with the NPPF, and should continue to be given due weight in the determination of this application:

Policy WLP1 – Objective of the Plan, states that waste management proposals will be considered in relation to their contributions towards the waste management hierarchy which in order of priority is:

- Reduction (minimisation of waste);
- Reuse;
- Recycling and composting;
- Energy recovery from waste;
- Disposal of residual waste.

When applying the hierarchy and assessing the need for waste facilities regard will be paid to:

- Proximity principle;
- Regional self-sufficiency;
- Waste planning policies and proposals of neighbouring areas;
- Best available techniques and the environmental setting of the facility.

Policy WLP11 – Anaerobic Digestion and Mechanical Biological Treatment, states that planning permission will be granted for anaerobic digestion and mechanical biological treatment plants provided the following criteria are met:

- i) any digestate produced as a residue of the process can be satisfactorily managed and disposed of; and

- ii) that the site is located so as to minimise the traffic impact on the highway network. Favourable consideration will be given to those developments that propose multi-modal transportation, for example, waste movement by rail; and
- iii) such facilities will be permitted on land identified for general industrial use (B2) or form an integral part of:
  - (A) sewage treatment plants;
  - (B) intensive livestock units;
  - (C) other waste management facilities;
  - (D) associated with food processing facilities; and
- iv) the proposal meets the criteria set out in Policy WLP21; and
- v) that the proposal is located at a distance from an occupied building (hotels, educational establishments, residential properties and institutions; other than properties in the same ownership as the proposed facility), that will allow any odour impacts upon the use of the occupied building(s) to be sufficiently mitigated against. The distance will be no less than 250 metres; and
- vi) self-sufficiency for operational energy and exportable energy recovery is maximised where appropriate; and
- vii) that with respect to anaerobic digestion plants, methane gas shall be utilised in all but specific circumstances; and
- viii) the application is accompanied by a satisfactory Odour Impact Assessment.

Policy WLP21 – Environmental Considerations, states that planning permission for waste management facilities will be granted where a number of environmental considerations are met. The sections of particular relevance to this application are:

#### Agricultural Land

- (i) where previously developed land, or land of a lower agricultural grade is not available to accommodate the proposed development and the proposal is on land of the lowest possible grade in that locality.

#### Drainage, Flood Protection and Water Resources

- (v) where the development would not adversely affect the efficient workings of local land drainage systems, or where it would not be at unacceptable risk from all sources of flooding, or where it would not create an unacceptable risk of flooding elsewhere, or where it would not involve the culverting of open watercourses for reasons other than access, or where it would not derogate groundwater sources and resources, or where it would not harm water quality.



Dust, Odour Etc

- (xi) where the development including its associated traffic movements, visual impact, noise, dust, odour, litter, and emissions, and its potential to attract scavenging birds, other vermin and insects would not have an adverse effect on local residential amenity including air quality; and/or other local land uses.

Transport System

- (xii) where sufficient capacity is available on the local or wider road system for the traffic that is expected to be generated.

Reducing Transportation

- (xiii) where the development proposed contributes where appropriate to the need to minimise the impact of transport requirements.

Recovery of materials

- (xvii) where possible and appropriate the development proposal contributes to the potential recovery of materials and energy via recycling, energy recovery and composting in reducing the amount for final disposal.

Policy A4 – Protection of General Amenities, states that development which unacceptably harms the general amenities of people living or working nearby will not be permitted.

Policy A5 – Quality and Design of Development, states that development which, by its design, improves the quality of the environment will be permitted provided it does not conflict with other policies of the plan.

Otherwise, development will be permitted only where:-

- a) its design – including its layout, density, scale, appearance or choice of materials – does not detract from the distinctive character of the locality;
- b) it retains or incorporates features or characteristics which are important to the quality of the local environment including important medium and long distance views;
- c) it is integrated within a landscaping scheme appropriate to its setting.

#### Results of Consultation and Publicity

- 19. (a) Local County Councillor, Mrs V C Ayling - who is a Member of the Planning and Regulation Committee reserves her position until the Committee date.
- (b) Toynton St Peter Parish Council – support the proposal.
- (c) Witham Fourth District Internal Drainage Board - states that before any work commences on site, details of any surface water disposal arrangements should be submitted to and agreed with the Planning Authority in conjunction with the IDB. If any changes are made to the

surface water or treated water disposal arrangements the Board should be contacted.

- (d) Historic Environment (Lincolnshire County Council) - do not have any comments to make.
- (e) Highways (Lincolnshire County Council) – consider that the proposed development will not be detrimental to highway safety or traffic capacity.
- (f) Environment Agency - in principle does not have an objection to the proposed development, but have serious concerns in relation to the type of plant proposed. The Agency would expect anaerobic digestion plants to have an auxiliary flare to allow controlled burning of gases during maintenance or breakdowns. This is to prevent a build-up of potentially explosive gases and control releases of greenhouse gases. As the current proposal does not include such a flare, it is unlikely to successfully meet the criteria necessary for an environmental permit.

The slurry tank and digestate tank should be covered. The proposed activity could result in nearby communities being exposed to odour emissions. The severity of these impacts would depend on the size of the facility, the way it is operated and managed, the nature of the waste and the prevailing weather conditions. If the operator can demonstrate that they have taken all reasonable precautions to mitigate odour impacts, the facility and community can co-exist with some residual impacts. In some cases, these residual impacts may cause local residents concern. The sunken digestion tanks would need bunding and leak detection equipment and drainage around the plant would need to be to a sealed drainage system with impermeable pavement.

Following discussions between the Environment Agency, applicant's agent and the Waste Planning Authority on the acceptability of anaerobic digestion plants without flares, the Agency's position is that they believe a flare is necessary and their position is still that the current proposal is unlikely to obtain an Environmental Permit in its current form. If the Waste Planning Authority consider the application could be granted, whilst leaving some details to be confirmed, it may be appropriate to agree the final design at the permitting stage.

The Environment Agency suggest a number of conditions to be imposed on the planning consent including that the development be carried out in accordance with the submitted Flood Risk Assessment (FRA); the digester tanks to have a butyl liner around them and have a leak detection system so that in the case of a leak it would be contained between the tank and liner; and, all areas where waste is to be stored or treated, including the silage clamp, to be surfaced with an impermeable pavement, incorporating a sealed drainage system.

The applicant has confirmed that, notwithstanding the fact that the existing tank on site already has pig slurry in it, it is proposed to use a bespoke granulated covering for both this tank and the proposed tank. The tanks would have a butyl liner and there would be a leak detection system installed.

- (g) Environmental Health Officer (East Lindsey District Council) – if the minimal separation distance to all receptors is 375m as stated in the application then this gives an adequate degree of separation for a development of this nature which is in essence of a similar character to livestock farming with associated slurry and manure handling/storage. The main potential odour sources associated with agricultural anaerobic digesters are usually the silage and slurry/manure feedstock and the digestate storage.

In this case the proposed feedstock is a mixture of energy crops, and imported farmyard manure and pig slurry.

The storage and handling of energy crops is analogous to the operation of a silage clamp on a beef or dairy farm and unlikely to cause a significant off-site odour impact. Storage and handling of manures and other organic wastes need more prescriptive management to ensure control of emissions, although it is noted that on-site storage of slurry already takes place and that the existing slurry store on the site will be used to store digestate in future if the proposed development is built.

Digested material should have lower odour potential than untreated pig slurry, so to that extent the existing slurry store should generate less odour with digestate than currently with untreated pig slurry, providing that the materials spend a suitably long retention period within the digesters.

There is some contradiction in the submitted information about the period for digester residence and if it will exceed 46 days. A long residence time is beneficial in achieving stability and low odour potential in the resulting digestate and 46 days is likely to be adequate.

Treatment of slurry and manure through anaerobic digestion is likely to significantly reduce the odour potential of the wastes at the point of spreading. The impact from delivery of slurry to the AD site will be limited by virtue of the quantities imported on a regular basis and the sealed nature of slurry tankers.

#### Odour Management Plan

There is no document which could be considered to be an Odour Management Plan accompanying the proposal. The Evergreen Gas document “Odour Management within the Anaerobic Digestion Plant at Grange Farm – RHJ Farms Ltd” that is appended to the Design and

Access statement is more of a process description than an assessment of odour impact

The proposals have been looked at in the context of the recommended key questions presented by the Environment Agency in its sample Odour Management Plan Decision Document, 2011. Observations of the EHO, in relation to the application details, are summarised as follows:

- odour sources such as slurry storage and manure handling and digestate handling are only referred to indirectly. There is no mention of odours from the preliminary processing at the “feed” end of the digesters, and little detail about on-site storage of slurry and solid manure as a feedstock;
- in relation to the management of odorous materials held on site very limited details are provided, although the measures proposed are generally appropriate and proportionate to the nature of the development;
- few problems are anticipated within the proposal. There is no mention of the potential for odour complaints from neighbouring receptors and potential odour receptors are not identified;
- in relation to monitoring no routine odour monitoring is described in the proposals or the “odour” document. There are no proposals for routine off-site odour monitoring and off-site odour assessments;
- no limits on volumes are included but presumably the on-site tanks, clamps and storage facilities will have maximum capacities. No routine contingencies are listed other than combined head and power (CHP) outages and no contingency measures are specified in respect of abnormal events. The site would not be expected to give rise to significant odour emissions under normal operating conditions. However it is appropriate to specify any contingency measures e.g. for suspending deliveries or storing feedstock in the event that the proposed facility breaks down or that feedstock supply exceeds capacity; weather conditions preventing spreading to land and contingencies for if the digester became “poisoned”;
- the control of evaporation is not a key issue for the type of operation proposed, although the most odorous parts of the development, which are the digesters, are entirely enclosed so that evaporation is controlled. The silage clamps will be covered, although the open area could be further reduced if the clamp area were to be split into two halves so that a smaller silage working face is exposed. There is a suggestion that a floating “crust” will be used on the slurry tanks that is to be used for digestate storage. This may or may not be necessary with a long digester residence time;
- the plan does not specifically address appropriate measures for addressing potential odour nuisance for neighbours or emergency incidents.

In conclusion the information provided with the application in the main provides very little by way of an odour risk assessment for the main odour sources with respect to sensitive receptors, potential pathways and required control measures.

However, the risk of unacceptable odour emissions is likely to be relatively low given the nature of the proposed agricultural feedstocks and the location of the proposed development, which is apparently in a relatively isolated rural/agricultural location.

A more detailed Odour Management Plan is likely to be required before the proposed plant is granted an environmental permit by the Environment Agency and should in any case be prepared and approved before the proposed development is brought into use.

The applicant has confirmed that the feedstock would remain in the digester for at least 46 days.

20. The application was publicised by site notice and a press notice appeared in the Skegness Standard on 4 September 2013. Individual properties were also notified. One representation was received which is summarised below:
- concern expressed that given the nature of the application, the neighbour notification list was restricted to three addresses. Last year an application was made for replacing overhead power cables (in comparison an extremely minor development) and all properties on surrounding roads were notified;
  - concern about the effects on air quality;
  - research on the Environment Agency's website has shown some alarming information i.e. "the treatment of biodegradable waste has an inherently high potential for offensive odour and in our experience it is difficult to prevent odour emissions at all times even when the operator has taken all the appropriate measures";
  - living in a rural area there is exposure to "farming smells", which is acceptable, but it would not be acceptable to be exposed to odours from the AD plant;
  - the odour report attached to the application does not adequately explain (in layman's terms) in sufficient detail what the potential odour risk is, and how this would be managed;
  - all local residents should have been notified and given time to research and raise any concerns.

#### District Council's Recommendations

21. East Lindsey District Council initially objected to the application due to the 4m high wall around the silage clamp, which they considered would appear as an alien feature in the open and flat countryside where there is little vegetation. The provision of a native species hedge would not be sufficient to screen the walls. No objections are raised to the rest of the proposal, subject to the Environment Agency supporting the proposal as the site lies



within Flood Zone 3. Following the submission of an amended plan, East Lindsey District Council withdrew their objection, subject to a suitable landscaping scheme being secured through a planning condition.

## Conclusions

22. The aim of policies at the national and local level in relation to waste is to allow waste management operations that move waste up the hierarchy, provided there would be no unsatisfactory environmental impacts resulting from the development. In particular the proposal attracts the presumption in favour of sustainable development as set out in the NPPF and the Government's strategy on AD plants including agricultural holdings.
23. The proposed development would provide a means for energy recovery from animal waste and animal bedding, as well as a proportion of maize crop grown for this purpose. Although small scale the development would, nevertheless, contribute towards achieving the objectives of Waste Local Plan Policies WLP1 and WLP21 (xvii) by providing a means to recover and use a waste stream, thereby moving such wastes up the waste hierarchy. Furthermore, a by-product of the process would be a digestate which would be used as a fertiliser and soil improver. The application would also accord with Policy WLP11 (i), which seeks to ensure the satisfactory management of any digestate produced.
24. The principal of the proposal based on strong Government policy support for AD plants and also its contribution to the waste hierarchy has been established. However, issues in relation to the countryside location, visual impact, flood risk and other amenity issues and traffic need to be assessed.

## Location

25. The site is located within open countryside on an existing farm unit 2.5km south of the village of Toynton St Peter. The surrounding countryside is flat and low lying agricultural land, interspersed with residential properties, farmsteads and agricultural buildings.
26. Part (iii) of Policy WLP11 – Anaerobic Digestion and Mechanical Biological Treatment, of the Lincolnshire Waste Local Plan, states that such facilities will be permitted on land identified for general industrial use (B2) or the other stated criteria. Whilst the application site falls outside any of the stated locational criteria the Government has recently given clear support for the siting of AD units on farms. The National Anaerobic Digestion Strategy supports and acknowledges the role of AD units on farms. Consequently although the site does not meet any of the locational requirements of Policy WLP11 this policy was adopted in 2006, sometime before the publication of the Government's strategy on AD plants which clearly supports the location of ADs on farms.
27. The second criterion of Policy WLP11 is to minimise traffic impact. This would be achieved by the following:

- all traffic movements would remain the same as the proposed feed stock is currently brought to the site and stored in slurry lagoons and the bedding muck is stored in the open;
  - the material used to feed the digesters is largely produced on the applicant's farm or on the immediate surrounding area;
  - the solid and liquid products resulting from the anaerobic digestion process can be used on the applicant's farm as fertiliser, reducing the need to transport it off site.
28. There is, therefore, justification for the proposed development to be located within the fabric of the existing farm. All of these factors have implications for reducing the need to travel, in accordance with criterion (ii) of Policy WLP11 and Policy WLP21 (xiii), ensuring that the site and operations being undertaken by the applicant take the opportunity to move to being self-sufficient, in line with criterion (vi) of Policy WLP11. It is concluded that the above reasons provide support for the proposal, despite it falling outside the stated locational criteria of WLP Policy 11.

#### Landscape and Visual Impacts

29. The proposed site is within a farm holding and is currently used for activities associated with cattle rearing, including the storage of slurry and silage. There is a slurry tank on the site and a number of agricultural buildings and sheds adjacent to the western boundary of the site. As discussed, the main built elements of the proposal would comprise the anaerobic digester units, a processing building, a gas holder and slurry reception tank, and a wall which would be a maximum of 4m at its highest point.
30. The tallest structures on the site would be the CHP and Process building, at approximately 7m high. The existing agricultural buildings extend the length of the site, on the site's western boundary, and the presence of these buildings screen the site on its western and south western boundaries from Fenside Road. The residential property on the farm unit is approximately 330m to the west of the site, the other nearest residential properties to the site are 430m and 460m to the north west and south west of the site respectively. Although the site can be viewed in part from all directions, the distances from any vantage point are of such a scale that views into the site would be obscured. There is currently a slurry tank on site and a silage area and a number of agricultural buildings surrounding it. It is considered that the visual appearance of the proposed development, taken in context with these existing buildings and structures, would not be incongruous in this flat agricultural landscape.
31. In terms of visual impact the proposed development relates to an existing agricultural use in the open countryside, and much of the built form of the operations would be agricultural in character and appearance. This, together with the inclusion of a landscaping scheme, which would incorporate a hedge and trees, would help soften the visual impact of the proposal. On balance, it is concluded that the proposal would not be harmful to the

landscape character and would not be an incongruous feature within the landscape. It is therefore concluded that the proposed development would be in keeping with paragraph 97 of the NPPF and not conflict with Policy WLP21 (xi) of the Lincolnshire Waste Local Plan or Policy A5 of the East Lindsey Local Plan in terms of visual impact.

### Highways and Traffic

32. Currently slurry and bedding mulch is moved around the farm and the immediate surrounding land in the applicant's ownership. The proposal would result in all the loads being taken to the application site rather than to other sites owned by the applicant. The location of the plant on the farmstead would remove the need to import feedstock material from further away, thereby according with Policy WLP11 (vi). In addition the resultant digestate would be put back on the fields, removing the need to transport it off site.
33. A relatively small amount of maize (2,750 tonnes) would be grown to supplement the feedstock, this would be grown on the applicant company's existing farmland, near to the application site. The applicant argues that this land would be used for alternative crops which would result in associated traffic movements, and consequently the traffic associated with the proposal would therefore be the same as at present. The Highways Officer has raised no concerns in respect of the local highway network being able to accommodate the proposed vehicle movements and the application is considered to accord with Policy WLP21 (xiii).

### Odour

34. The nearest residential property is 330m from the site. Concerns in relation to odours and air quality that may result from the development, have been raised by a local resident. The Environmental Health Officer has stated that the nature of the proposed activities would be akin to the livestock farming activities associated with slurry and manure handling and storage and assessed the application on this basis.
35. The main potential sources of odour would be from the silage and slurry/manure feed stocks and the digestate storage. At the current time these feedstocks are transported to the site and the surrounding land, and the slurry is stored in an open tank on the site. It is considered that the handling and storage of the slurry and silage would in essence be no different from the current situation, and the proposal to cover the slurry tank with a bio crust to prevent odour would be an improvement on the current situation.
36. However, although the Environmental Health Officer has confirmed that few problems in relation to odour would be expected and that the measures proposed are generally appropriate and proportionate to the nature of the development, it is considered that some aspects and potential issues in relation to odour have not been satisfactorily addressed. These relate to the need to incorporate a procedure for odour monitoring, how to manage

complaints received and to be prepared for emergency situations. For these reasons it is considered that a comprehensive odour management plan should be submitted and approved before any development takes place.

37. Criterion (v) of Policy WLP11 - Anaerobic Digestion and Mechanical Biological Treatment, states that planning permission can be granted provided that the proposal is located at a distance from an occupied building, including residential properties, that will allow any odour impacts upon the use of the occupied building to be sufficiently mitigated against. This distance is to be no less than 250m. The development would accord with this policy, since the nearest property is approximately 330m distant. It is also considered that with the submission of a robust odour management plan, which can be secured by planning condition, the development would not be contrary to the aims of criterion (xi) of Policy WLP21 of the Waste Local Plan and Policy A4 of the East Lindsey Local Plan.

#### Noise

38. Noise associated with the development would result from the associated traffic movements as well as the AD process itself.
39. Anaerobic digestion is a predominantly biological process, with limited use of machinery. The machinery used would include the mechanical loading of feedstocks into the digester and the removal of dry digestate from the facility. This machinery is predominantly agricultural and includes teleporters, tractors and trailers and this would be carried out during normal working hours.
40. As previously discussed, all of the feedstocks would continue to be transported along the existing farm track, which leads directly from Eastville Road, which is sparsely populated. It is considered there would be no significant noise impact on local residents, over and above existing vehicular movements, from the feedstock being brought to the site.
41. The engine associated with the AD operations would be situated in a purpose made building that would have attenuation to ensure that sound breakout from the building is minimal. As previously discussed the nearest residential property would be 330m away and therefore it is considered that noise would not be a significant issue and therefore the application would not be contrary to the aims requirements of Policy WLP21 (xi) of the Waste Local Plan or Policy A4 of the East Lindsey Local Plan.

#### Flood Risk

42. The site is within Flood Zone 3a. In accordance with the Technical Guidance to the NPPF the development would be classified as a less vulnerable use and is considered to be appropriate. The Flood Risk Assessment (FRA) submitted with the application concluded that the site would be at risk from fluvial or tidal flooding without defences, however the site has protection from fluvial flooding from the flood defences to the West

Fen Catchwater. Furthermore, the Witham Fourth Internal Drainage Board have no records of any history of flooding in the area and the Environment Agency have no objection to the application in terms of flood risk, provided that any development would be carried out in accordance with the submitted FRA. This includes the adoption of measures to safeguard the site and staff from flood events, which includes ensuring vulnerable equipment is set at a level of 1.5m AOD and that the site owner registers with the Environment Agency's floodline. Subject to the imposition of a condition requiring the development to be carried out in accordance with the FRA, it is concluded that the proposed development would be in accordance with Waste Local Plan Policy 21(v).

#### Other Issues

43. Although the Environment Agency has no concerns in principle to the establishment of an AD plant, they have expressed serious concerns in relation to the ability of the proposals to gain an environmental permit, due to the lack of a flare stack. The applicant maintains that this is a matter that can be dealt with at the permitting stage, and this is in line with government guidance that the planning process and pollution control processes can remain separate in appropriate circumstances. However, if a flue is required at a later stage this would represent a change to the scheme before the Committee today. Depending on the size, nature and location of any flue a further application would be necessary either as a Section 73 to vary the approved plans as set out in the proposed condition 2, or a new application.

#### Final Conclusions

44. The application is for a small scale anaerobic digestion plant on a farm. The plant would utilise slurry and bedding muck currently brought to the site and adjoining land to produce a renewable energy source, as well as digestate that would be used as a fertiliser. It is considered that the development would not have a negative impact on the landscape, or in terms of vehicular movements. The risk of nuisance odours arising is considered to be low, but this could be addressed by an odour risk management plan. For these reasons it is considered that the application accords with the Development Plan.

### **RECOMMENDATIONS**

It is recommended that planning permission be granted subject to the following conditions:

1. The development hereby permitted shall be begun before the expiration of three years from the date of this permission. Written notification of the date of commencement shall be sent to the Waste Planning Authority within seven days of such commencement.



2. The development hereby permitted shall be carried out in accordance with the submitted application and details received on 10 July and 26 July 2013 and following drawing numbers:
  - 1071-01-SP01 Rev C Site and Location Plan
  - 1071-01-Elevations
  - 1071-01-03- Clamp Wall Elevations
3. The development hereby permitted shall be carried out in accordance with the Flood Risk Assessment, dated June 2013.
4. The feedstock materials shall be restricted to slurry, animal bedding, maize and any other biomass or energy crops that are grown and sourced from within the farm holding.
5. Notwithstanding the details shown on Drawing No: 1071-01-SP01 Rev C, no development shall commence until the written approval of a landscaping scheme has been submitted and approved in writing by the Waste Planning Authority. The scheme shall include details of the number, species, heights on planting and positions of all the trees. The scheme as approved shall be carried out in its entirety within the period of 12 months beginning with the date on which development is commenced. All trees, shrubs and bushes shall be adequately maintained, including a 0.5m weed free radius around each tree until they are established, for the period of 10 years beginning with the date of completion of the scheme and during that period all losses shall be made good as and when necessary.
6. No development shall take place until details of the noise mitigation measures to be incorporated in the design and construction of the building housing the combined heat and power engine have been submitted to, and approved in writing by, the Waste Planning Authority. Such details shall include an assessment of the noise levels associated with the engine. The approved details shall be implemented in full.
7. Prior to installation, details of all external lighting shall be submitted to, and approved in writing by the Waste Planning Authority. Development shall thereafter be carried out in accordance with the approved details.
8. The means of connection to the National Grid shall be by underground cable.
9. The material stored within the silage clamps shall not exceed four metres in height.
10. No development shall commence until an odour management plan detailing how, where and when odour will be measured, who will be responsible and how results will be assessed, and include appropriate mitigation measures, has been submitted to and approved in writing by the Waste Planning Authority. The scheme shall include a procedure for recording and

addressing any complaints. The approved plan shall be implemented in full for the duration of the development.

11. No development shall take place until details of the impermeable surface, for all areas where waste is to be stored or treated, incorporating a sealed drainage system has been submitted to and agreed in writing by the Waste Planning Authority. The scheme as approved shall be implemented in full.
12. No development shall take place until details of bunding and a butyl liner, around the digester tanks, and a leak detection system have been submitted to and approved in writing by the Waste Planning Authority. The approved scheme shall be implemented in full and maintained for the duration of the development.

#### Reasons

1. To comply with Section 91 of the Town and Country Planning Act 1990.
2. To ensure that the development is carried out in an acceptable manner and for the avoidance of doubt as to the development that is permitted.
3. To reduce the risk of flooding to the development.
4. To correspond with the quantities and source of feedstock materials for which planning permission was applied for and to limit the scale of operations in the interests of the amenity of the area.
- 5, 8 & 9  
In the interests of the visual amenity of the area.
- 6 & 7 In the interests of the general amenity of the area.
10. In the interests of reducing odour pollution to protect the amenity of the area.
- 11 & 12  
To prevent pollution.

#### Appendices

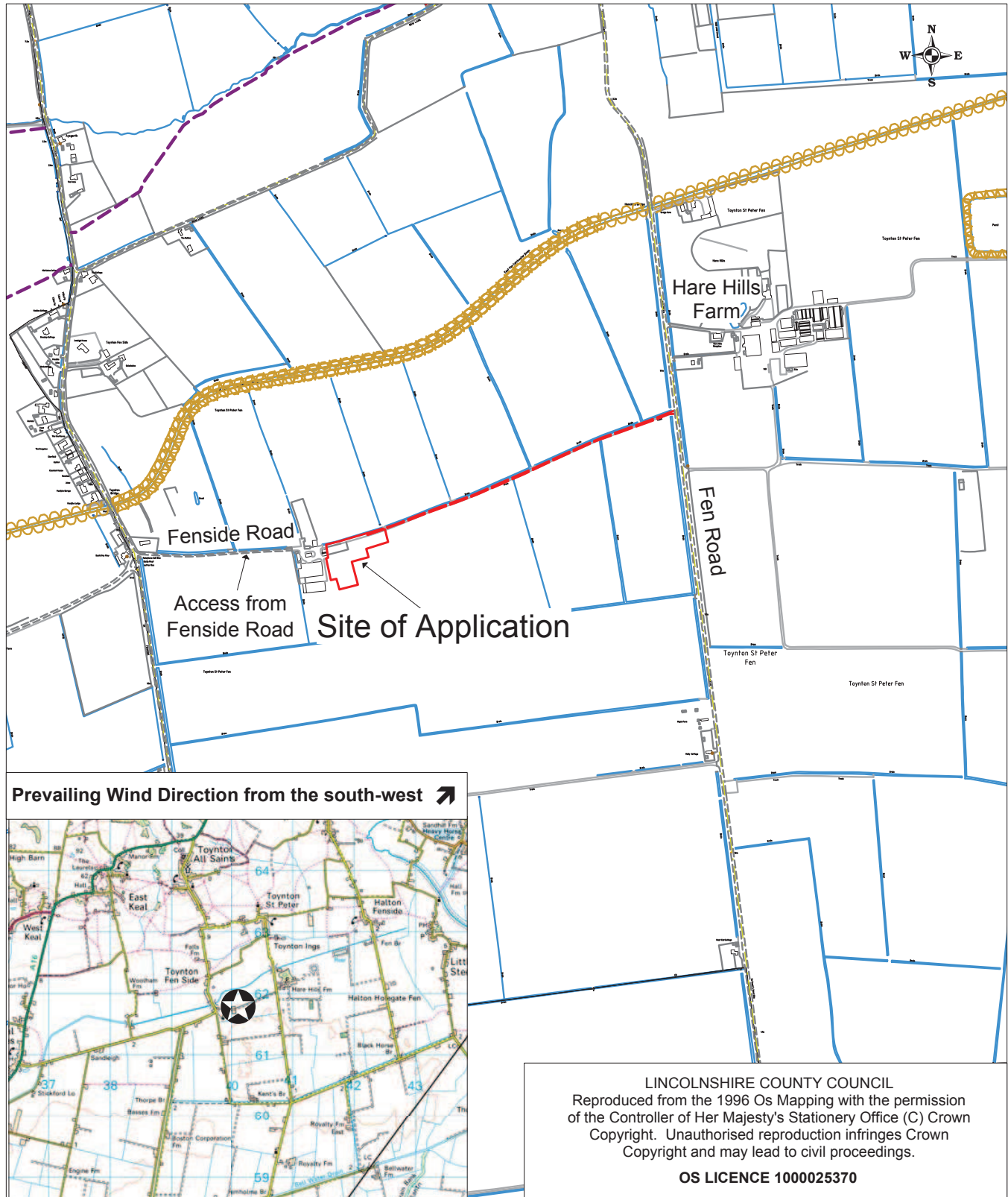
These are listed below and attached at the back of the report	
Appendix A	Committee Plan

## Background Papers

The following background papers as defined in the Local Government Act 1972 were relied upon in the writing of this report.

Document title	Where the document can be viewed
Planning Application File (E)S186/1583/13	Lincolnshire County Council, Planning, Witham Park House, Waterside South, Lincoln
The National Planning Policy Framework (March 2012)	Communities and Local Government website <a href="http://www.gov.uk">www.gov.uk</a>
National Anaerobic Digestion Strategy and Action Plan (2011)	Lincolnshire County Council website <a href="http://www.lincolnshire.gov.uk">www.lincolnshire.gov.uk</a>
Lincolnshire Waste Local Plan (2006)	Lincolnshire County Council website <a href="http://www.lincolnshire.gov.uk">www.lincolnshire.gov.uk</a>
East Lindsey Local Plan (1999)	East Lindsey District Council website <a href="http://www.e-lindsey.gov.uk">www.e-lindsey.gov.uk</a>

This report was written by Sandra Barron, who can be contacted on 01522 782070 or [dev\\_pcg@lincolnshire.gov.uk](mailto:dev_pcg@lincolnshire.gov.uk)



**Location:**  
Grange Farm  
Fen Road  
Toynton St Peter

**Description:**  
Proposed Anaerobic Digestion Plant

**Application No:** (E)S186/1583/13

**Scale:** 1:10 000

This page is intentionally left blank