



## OFFICER REPORT

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Application Number: 12/00055/FUL

Proposal: Proposed farm anaerobic digester plant

Location: The Produce Connection Limited Padro House Ely Road Chittering Cambridgeshire

Applicant: The Produce Connection Limited

Agent: Tony Walton Design

Case Officer: Scott Jackson

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### **The Application:**

Planning permission is being sought to erect an Anaerobic Digester (AD) Plant and associated plant and machinery, together with the raising of the earth bund at Padro House, Chittering. The application site on which the AD plant is proposed encompasses a total area of 560m<sup>2</sup> and it is proposed to erect 2x primary digester tanks, 2x secondary digester tanks, a digestate storage tank (30m diameter x 8m height), an engine room, service room, balancing pond and associated hardstanding.

The structures proposed consist of the following:

- 2x Primary Digesters with a diameter of 20m and a height of 10m
- 2x Secondary Digesters with a diameter of 24m and a height of 10m
- Digestate Storage Tank with a diameter of 30m and a height of 8m
- Service Room measuring 7.2m x 5m with a height of 4.5m
- 2x Engine Rooms measuring 4m x 15m with a height of 3m.

The AD Plant would be located to the rear of the existing agricultural buildings. The location of the AD plant facilities would enable the heat and electricity generated by the AD Plant to be used to run the existing farm operations and any surplus electricity generated would be exported back to the national grid. AD offers a sustainable system where naturally occurring bacteria break down biodegradable materials in the absence of oxygen to produce a methane-rich biogas. The biogas can be converted into electricity and heat, leaving a nutrient rich organic fertiliser, called a digestate. The process takes place in sealed tanks.

The AD Plant would process approximately 25,000 tonnes of organic material per annum in the form of maize and grass from the existing farm business along with crop feedback in the form of maize grown nearby as part of the existing crop growing operations in the area.

The AD Plant would extract the energy value from the crop feedstocks before returning the remaining digestate back to land to grow further crops. This would displace synthetic fertilisers. The digestate would be stored in covered tanks providing 45-60 days storage.

The area within which the Digestate Storage Tank would be accommodated, would be sunk by 2m below existing ground level in order to be set at the same height as the primary and secondary digester tanks.

**Relevant Plans:**

Plan Reference	Version No	Date Received
PC02-12	A	23rd March 2012
PC03-12	A	23rd March 2012
PC04-12		23rd March 2012
		23rd March 2012
LOCATION PLAN		27th January 2012
PC01-12		27th January 2012

**The Site and its Environment:**

The site is an existing agricultural business that grows, stores and packs potatoes which are sold in the UK and Europe. The site has a number of large agricultural storage buildings constructed from metal profile sheeting. There is an existing site access off the old A10 loop road to the west. The land on which the AD plant is proposed is currently unused open land on which a polytunnel is located. The land is also used for the incidental parking of vehicles and trailers. The site is located in the open countryside and the nearest residential property is Chear Farm Cottage located 250m to the south west. The A10 runs north to south to the west of the site and there is existing screening in the form of a line of mature trees along the southern and western boundaries. A dyke runs adjacent to the northern boundary of the site.

**Planning History:**

92/00857/FUL	Erection of cold store & preparation area including external paved area (1512m2)	Approved	08.04.1993
94/00313/FUL	Proposed Covered Loading Area (1621m2)	Approved	21.06.1994
98/00560/FUL	Erection of extension to form cold store, change of use of workshop to cold store	Approved	01.09.1998
99/00163/FUL	Erection of potato and onion store - 3600m2	Approved	25.03.1999

**Replies to consultations:**

A site notice was erected and neighbours notified. 10 letters of objection and 1 letter of objection representing 12 properties at Lazy Otter Park Homes were received raising the following issues:

- Insufficient evidence to demonstrate whether the AD plant is essential for agriculture;
- Noise and vibration from construction process;
- Increase in road traffic, which will increase noise;
- Noise from the AD plant;
- Odour;
- Impact on air quality;
- No details pertaining to external lighting;
- Raw materials will need to be imported, thereby increasing traffic movements;
- Are the jobs figures realistic;
- Lack of information in relation to construction of the buildings, storage of agricultural material and how waste will be dealt with;
- Number of new accesses onto the A10 should be kept to a minimum;
- Proposals do not make provision for sustainable modes of travel;
- Inappropriate location for a development of this size, scale and nature;
- The legitimacy and accuracy of the quantities of crop required is questioned;
- The AD plant will not complement the proposed water sports business at Stowbridge Farm;
- No use for the heat provided by the AD plant;
- Questions raised about whether a bridge can accommodate additional traffic;
- Increase in flies and pests;
- Impact on local tourism;
- The development doesn't provide for a safe access onto the A10;
- Potential increase in accidents along the A10;
- No contamination reports provided;
- Impact on local ecology has not been assessed;
- A Flood Risk Assessment is required;
- The development should have been subject to a screening opinion.

Stretham Parish Council have objected to the proposed development, raising similar issues to those listed above, together with the following issues:

- Arrangements for the storage and disposal of waste digestate not provided;
- Visual impact;
- There is a discrepancy between the volume of materials required to feed the AD plant when compared to then Mushroom Farm application near Littleport;
- A planning condition should be imposed preventing the AD plant from being fed with waste in the future;
- The figures quoted in the supporting information are at odds with the feedback received from industry experts who were contacted by the Parish Council;
- Opinions of the experts differs from the case of the applicant;

Following receipt of an acceptable Flood Risk Assessment the Environment Agency has removed their objection and recommended planning conditions in relation to drainage/pollution control and infiltration of surface water drainage.

Waterbeach IDB have recommended conditions in respect of discharge rates and consent for discharging from the balancing pond.

County Council Highways have recommended a condition that during peak travel times vehicles approaching the site from the south along the A10 can only turn into the old A10 loop road via the most northerly junction which has a dedicated right turn lane.

County Council Archaeology has recommended a condition that an archaeological investigation be undertaken at the site.

Environmental Health has recommended a suite of conditions in respect of noise, construction noise, delivery times, odour, operational hours and activities.

**The Planning Policy Context:**

*East Cambridgeshire Core Strategy 2009*

CS8	Access
CS1	Spatial Strategy
S6	Transport impact
EN1	Landscape and settlement character
EN2	Design
EN3	Sustainable construction and energy efficiency
EN4	Renewable energy
EN7	Flood risk
EN8	Pollution

*Supplementary Planning Documents*

*National Planning Policy Framework 2012*

3	Supporting a prosperous rural economy
10	Meeting the challenge of climate change, flooding and coastal change
13	Facilitating the sustainable use of minerals

*Technical Guidance to the National Planning Policy Framework*

*East of England Plan 2008*

**Planning Comments:**

The key issues for consideration in determining this planning application are the principle of development, residential amenity, odour, noise, landscape and visual impact, impact on highways, flooding and drainage, archaeology and ecology/biodiversity.

**Principle**

The application site is located outside the settlement of Stretham on land designated as Countryside in the East Cambridgeshire Core Strategy, 2009. In such locations there is a strict control over new development, and it is generally restricted to that which is essential to the efficient operation of agricultural, horticulture, outdoor recreation and limited other uses specified within the Core Strategy. In determining this application it is therefore necessary to consider whether the proposed development is acceptable in principle, in a countryside location such as this. It is considered that the applicant has demonstrated that the proposed AD plant is essential to the efficient operation of agriculture as the plant would extract the energy value from the crop feedstocks before returning the remaining digestate back to the surrounding land to grow further crops. This would displace synthetic fertilisers, creating a

closed loop sustainable cycle. This is an operation that works alongside the existing farming operations at the site and the crops that are grown in fields surrounding the site and at neighbouring farms will be the raw material required for the production of renewable energy for use on the farm. It is considered that this is an appropriate location for the proposed development as it will be used to generate energy for the existing farming operations at the site, the size and nature of the proposal would not be suitable for a location within a settlement boundary and the site is easily accessible via the highway network, with direct access onto the A10. The feeder crop and the digestate (end product) used as a fertiliser are both used in association with agricultural practises.

Core Planning Principle 10 (Meeting the Challenge of Climate Change, flooding and coastal change) of the National Planning Policy Framework states that when determining planning applications, local planning authorities should:

- Not require applicants for energy production to demonstrate the overall need for renewable or low carbon energy and also recognise that even small-scale projects provide a valuable contribution to cutting greenhouse emissions; and
- Approve the application if its impacts are (or can be made) acceptable.

It is considered that the applicant has demonstrated that the proposed AD plant is essential to the efficient operation of agriculture as the plant would extract the energy value from the crop feedstocks before returning the remaining digestate back to the surrounding land to grow further crops. The AD plant will reduce the carbon footprint of the site operations and it is considered that the impacts of the development (discussed in greater detail in subsequent sections of this report) are acceptable.

Policy EN4 relates to proposal for renewable energy, which should be supported wherever possible, unless their wider environmental, social and economic benefits would be outweighed by significant effects on:

- The environment and amenity (impacts can be minimised through careful siting, design and use of landscaping);
- Key views, in particular those of Ely Cathedral;
- Protected species; and
- Residential amenity.

The proposed AD Plant would not have an adverse impact on the environment and amenity, due to the bunding and landscaping proposed and by setting the digestate tank 2 metres into the ground, to further reduce visual impact. While within the vicinity there are some limited views of the Cathedral, the proposal would not create an impact on key views. Protected species and residential amenity are considered in subsequent paragraphs of this report.

### **Residential Amenity**

The nearest residential properties are Chear Fen Cottage, Chear Fen Bungalow and Chear Fen House located between 240 and 280m to the south west of the site. Environmental Health has recommended conditions to be placed on any permission granted in order to control activities at the AD plant to protect the amenity of nearby residential properties. Whilst these conditions are discussed in more detail in subsequent sections of this report (relating to noise and odour) it should be noted that they are put in place to protect the amenity of residential properties. These conditions also consider the potential implications of the construction phase upon residential amenity. With adequate conditions in place the amenity of nearby residents should be protected and refusal cannot be recommended on these grounds.

## **Odour**

Due to the agricultural nature of the area it is expected that there will be odours generated from agricultural practises taking place. This includes the odours generated by the existing farming operations at the site as well as farmsteads in the local area. In their supporting case the applicant has clearly stated that the AD plant involves a largely sealed process, but accepts that the digestate is likely to give rise to some odour, albeit limited in its release. The release of odours that have the potential to be detrimental to residential amenity arise from the storage of silage on the site and the spreading of digestate (solid and liquid) onto the field as fertilizer. Whilst these odours are considered to be low in intensity and agricultural in nature it is considered prudent in this case to impose planning conditions in relation to the feeder to the AD plant being sealed when not being filled; that the AD process shall be fully enclosed, and that an investigation be made into the source of the odour if a complaint is received by the LPA. Environmental Health considers that the information submitted by the applicant in respect of odour release is sufficient and that there were no grounds to recommend refusal of the application on the basis of odour, subject to the imposition of the suggested conditions.

As most of the process is enclosed, including the silage clamps the proposed development is not considered to give rise to issues associated with the ingress of vermin or pests.

## **Noise Impacts**

Environmental Health have recommended the imposition of planning conditions in relation to both the constructional and operational phases of the development, and advised that there is no reason to recommend refusal of the planning application on noise grounds. The suggested conditions also make allowances for the investigation of the source/cause of noise issues in the event that a complaint is received by the LPA in respect of noise. It is considered that the imposition of this suite of conditions will minimize the potential for noise issues and addresses the noise issues raised by objectors, whilst allowing the investigation and potential mitigation of a noise complaint from neighbouring properties if the noise level is found to exceed the conditioned limit.

## **Landscape and Visual Impact**

As stated in a previous paragraph of this report there are proposals in place to increase the height of the earth bund that borders the site up to 3m. The largest of the tanks (the digestate storage tank) will be set into the ground by 2m, thereby resulting in its height being level with the remainder of the tanks. A condition will be imposed that the tanks be finished in a green colour to allow these structures to assimilate into the landscape. The tanks will be screened by the existing farm buildings to the west and that the bunding along the northern, eastern and southern boundaries would significantly reduce the visual impact and assist with the assimilation of the development into its surroundings.

## **Highways**

County Council Highways have raised no objections to the proposed development on highway grounds, taking into account the capacity of the highway network and the bridge on the old A10 loop road to accommodate additional traffic movements over time. During the construction and operational phases the existing access into the farm from the old A10 will be utilized. Highways have commented that there is no record of traffic accidents at the southerly junction where the old A10 connects with the A10, but acknowledge that there may be an increase in traffic to and from the site over time. In order to maintain highway efficiency and reduce the potential for traffic congestion along the A10; a planning condition will be imposed that during peak times traffic approaching the site along the A10 from the south shall utilize the dedicated right hand turn lane at the most northerly junction with the old A10 loop road. The proposal does not involve the creation of a new vehicular access onto the A10.

The supporting information states that the development will make provision for 3 new jobs. The site is easily accessible along the A10. Based on the number of jobs to be provided it is considered that a Green Travel Plan indicating sustainable modes of travel is not a requirement in this instance.

It should be noted that the process of feeding the AD plant is agricultural in nature and will involve the importation of crops from surrounding farms and fields, as well as harvesting maize to be grown in the surrounding fields; this approach will work in the same way as the existing potato storage and packing facility at the site which takes delivery of stock from surrounding farms and fields. Whilst there may be an increase in traffic movements to and from the site, these trips will not be generated for any other purpose than for agricultural operations, thereby meaning that the type of trips generated to the site will not change as a result of the AD plant being established.

### **Flooding and Drainage**

The applicant submitted a Flood Risk Assessment (FRA) to the LPA on 19 April 2012. The Environment Agency has considered the contents of the FRA and removed their previous objection on flood risk grounds. Conditions will be imposed in relation to the methods of drainage and wastewater disposal (condition 17). The comments received from the Waterbeach IDB in respect of discharging surface water and requiring a licence to discharge surface water will be added as a note to applicant.

### **Archaeology**

County Council Archaeology have requested the imposition of a planning condition that requires an archaeological survey of the site to be undertaken prior to development commencing. This will be secured by way of planning condition (condition 18).

### **Ecology/Biodiversity**

An ecology report has not been submitted with the application. However through applying the consultation matrix on the Natural England website, it is concluded that there is no requirement to consult Natural England on this application and taking into account the site characteristics, it is considered that an ecology report is not required in this case.

### **Lighting**

A condition has been imposed which restricts the installation and erection of additional external lighting to avoid issues of light pollution to neighbouring properties.

### **Other issues**

It is important to note that a number of objections have been received in relation to this planning application which question the legitimacy and accuracy of the supporting information provided by the applicant. It is considered that these comments relate to the efficiency and the capacity of the AD plant when it is in operation and are not material planning considerations; therefore these issues will not be assessed in this case. The Local Planning Authority has a duty to assess the planning application in terms of the land use issues and impact upon residential amenity; this procedure involves taking into account the supporting case provided by the applicant. In this instance it is considered that the information provided to the LPA is sufficient to demonstrate that the proposal is acceptable in planning terms and does not warrant refusal of the planning application.

The LPA has screened the proposed development to determine whether it is subject to an Environmental Impact Assessment (EIA) and have concluded that the proposal does not require a full EIA screening opinion to be undertaken.

The impact of the proposed development upon local tourism is not considered to be a material issue and will not be assessed as part of this case.

**RECOMMENDATION:** Approve

- 1 The development hereby permitted shall be commenced within 3 years of the date of this permission.
- 1 Reason: To comply with Section 91 of the Town and Country Planning Act 1990, as amended.
- 2 The Primary and Secondary Digester Tanks, the service room and engine room hereby approved shall be coloured green. The precise colour finish shall be submitted to, and agreed in writing by, the Local Planning Authority prior to the erection of the buildings.
- 2 Reason: To assimilate the development into its surroundings, in accordance with policy EN1 of the East Cambridgeshire Core Strategy 2009.
- 3 A management plan shall be submitted and agreed in writing with the Local Planning Authority regarding mitigation measures for the construction phase these shall include, but not be limited to, a schedule of works, plant to be used, times of use and shall be adhered to at all times during the construction phase, unless otherwise agreed in writing with the Local Planning Authority (LPA).
- 3 Reason: To safeguard the residential amenity of neighbouring occupiers, in accordance with policy EN2 of the East Cambridgeshire Core Strategy 2009.
- 4 The use of plant and machinery and deliveries to the site during the construction phase shall be limited to 07:00 - 18:00 Monday - Friday and 08:00 - 13:00 on Saturdays and at no time on Sundays and Bank Holidays unless prior written agreement with the LPA has been given.
- 4 Reason: To safeguard the residential amenity of neighbouring occupiers, in accordance with policy EN2 of the East Cambridgeshire Core Strategy 2009.
- 5 Other construction activities shall be limited to 07:00 - 22:00 Monday to Saturday unless otherwise agreed in writing with the LPA.
- 5 Reason: To safeguard the residential amenity of neighbouring occupiers, in accordance with policy EN2 of the East Cambridgeshire Core Strategy 2009.
- 6 Staff working hours on the plant shall only take place between the hours of 07:00-19:00 Monday to Saturday and 07:00-16:00 on Sundays and Bank Holidays, unless otherwise agreed in writing by the LPA.  
  
The only activities permitted on the site outside of these hours are for access by employees and contractors for purposes of security and undertaking emergency maintenance and repair.
- 6 Reason: To safeguard the residential amenity of neighbouring occupiers, in accordance with policy EN2 of the East Cambridgeshire Core Strategy 2009.



- 7 Delivery and collection times shall be limited to 07:00-21:00 Monday to Friday and 07:00-19:00 on Saturday, Sunday and Bank Holidays.
- 7 Reason: To safeguard the residential amenity of neighbouring occupiers, in accordance with policy EN2 of the East Cambridgeshire Core Strategy 2009.
- 8 Any site based mobile plant (excluding HGV's) shall have broadband reversing alarms, either set to a low noise level or, if Health and Safety and/or the LPA deem it necessary, to be of a 'smart' type- A reverse-warning alarm that automatically adjusts the level of sound it emits to suit prevailing conditions.
- 8 Reason: To safeguard the residential amenity of neighbouring occupiers, in accordance with policy EN2 of the East Cambridgeshire Core Strategy 2009.
- 9 All doors to the Combined Heat and Power generators shall remain closed, except to allow ingress and egress.
- 9 Reason: To safeguard the residential amenity of neighbouring occupiers, in accordance with policy EN2 of the East Cambridgeshire Core Strategy 2009.
- 10 The feeder to the AD plant shall be sealed when not being filled.
- 10 Reason: To safeguard the residential amenity of neighbouring occupiers, in accordance with policy EN2 of the East Cambridgeshire Core Strategy 2009.
- 11 The anaerobic digestion process shall be fully enclosed.
- 11 Reason: To safeguard the residential amenity of neighbouring occupiers, in accordance with policy EN2 of the East Cambridgeshire Core Strategy 2009.
- 12 At all times the best practicable means shall be employed to control and minimise any possible odour resulting from the storage of raw materials. Measures shall be taken to suppress odour arising from the operations hereby approved. If control measures are found by the LPA to be inadequate, causal operations shall cease until additional measures are provided and demonstrated to be adequate to limit and control the cause(s) of concern.
- 12 Reason: To safeguard the residential amenity of neighbouring occupiers, in accordance with policy EN2 of the East Cambridgeshire Core Strategy 2009.
- 13 No external lighting shall be installed or erected at the site unless otherwise agreed in writing by the LPA.
- 13 Reason: To safeguard the residential amenity of neighbouring occupiers, in accordance with policy EN2 of the East Cambridgeshire Core Strategy 2009.
- 14 The Combined Heat and Power Unit shall be positioned within an appropriately designed acoustic container to minimise noise emissions. Noise emissions from the AD plant shall not exceed 35 db(A). In the event of a verified noise complaint to the LPA, the operator at their own expense shall undertake noise monitoring when the plant and machinery is operating normally. The location of the noise monitoring points shall be agreed in writing by the LPA prior to monitoring being undertaken.

- 14 Reason: To safeguard the residential amenity of neighbouring occupiers, in accordance with policy EN2 of the East Cambridgeshire Core Strategy 2009.
- 15 All vehicles approaching the site from the south along the A10 during the hours of 08:00-09:00 and 16:30-18:00 Monday to Friday shall make a right turn manouvere using the right-turn lane at the northern end of the old A10 loop road only.
- 15 In the interests of maintaining highway efficiency in accordance with policy S6 of the adopted Core Strategy.
- 16 Prior to the AD plant and its associated buildings being first brought into use the soft landscaping scheme shown on drawing PC02-12A shall be implemented in its entirety and thereafter be retained.
- 16 Reason: To assimilate the development into its surroundings, in accordance with policy EN1 of the East Cambridgeshire Core Strategy 2009.
- 17 Prior to the commencement of any development, a scheme for the provision and implementation of (i) pollution control, (ii) surface water and (iii) dirty water drainage shall be submitted and agreed in writing with the Local Authority. The works/scheme shall be constructed and completed in accordance with the approved plans/specifications at such time(s) as may be specified in the approved scheme.
- 17 To ensure a satisfactory method of drainage and reduce the risk of pollution to the water environment.
- 18 No development shall begin until the applicant has secured the implementation of a programme of archaeological work in accordance with a written scheme of Investigation which has been submitted by the applicant and approved in writing by the Local Planning Authority. The archaeological work shall be carried out in accordance with the approved details.
- 18 Reason: To ensure that any archaeological remains are suitably recorded in accordance with policy EN5 of the East Cambridgeshire Core Strategy, 2009.
- 19 If, during development, contamination not previously identified is found to be present at the site then no further development (unless otherwise agreed in writing with the LPA) shall be carried out until the developer has submitted, and obtained written approval from the LPA for, a method statement detailing how this unsuspected contamination shall be dealt with.
- 19 To ensure that the development complies with approved details in the interests of protection of the environment and harm to human health and to ensure that any unsuspected contamination found is dealt with appropriately.
- 20 The AD plant hereby permitted shall only be fed with the fuel source stated in the planning application unless otherwise agreed in writing by the LPA.
- 20 To ensure that the development complies with the approved details and to allow the LPA to assess whether the use of an alternative fuel source is acceptable in this rural location.

Signed and dated:

Case Officer

██████████ - 4-5-12

Principal Development Control Officer

██████████ 4.5.12