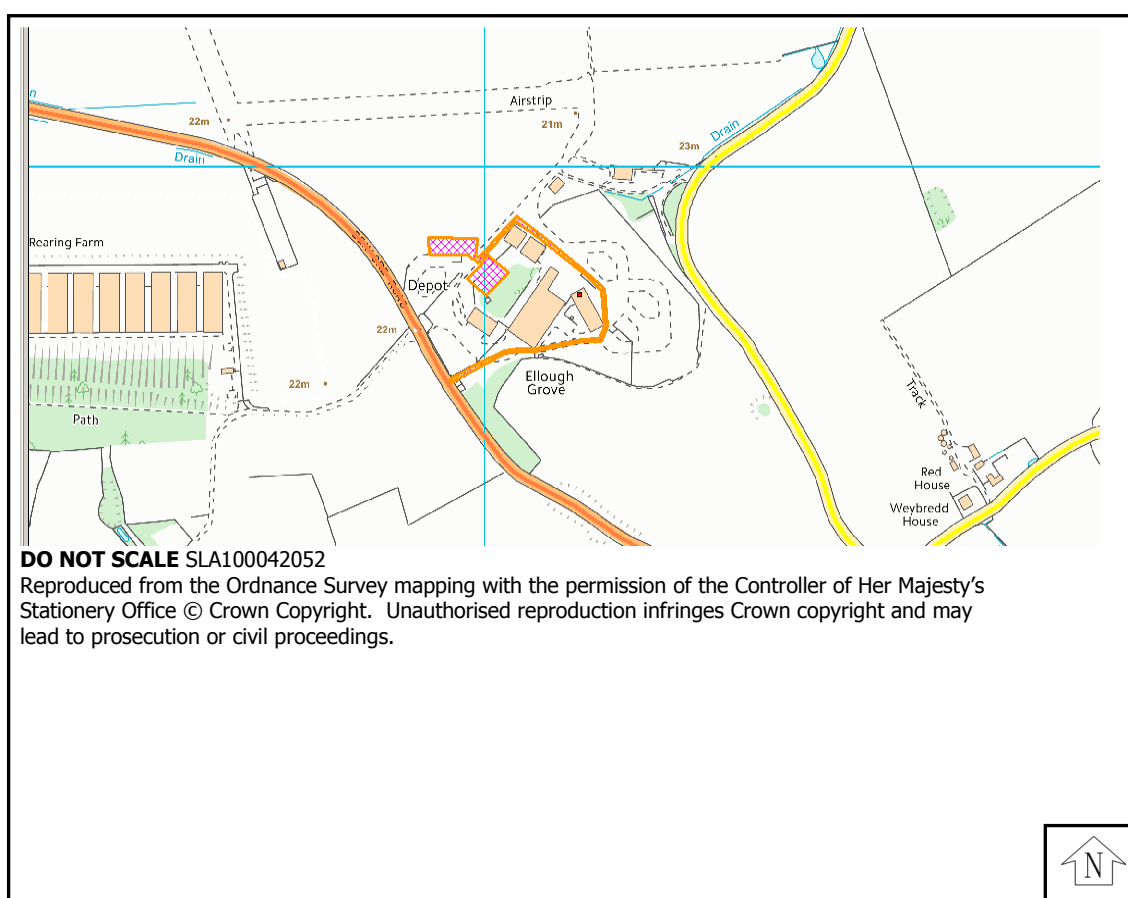


PLANNING COMMITTEE – 13 OCTOBER 2015**APPLICATION NO** DC/15/2823/FUL**LOCATION**

Beccles Heliport
Benacre Road
Ellough
Suffolk
NR34 7XD

EXPIRY DATE 12 October 2015**APPLICATION TYPE** Full Application**APPLICANT** Lark Energy**PARISH** Ellough**PROPOSAL** Construction of 46 bio-diesel generators and associated infrastructure**SUMMARY**

- 1.1 This application has been submitted by the developers of the solar farm on the south side of Benacre Road, but relates to land on the north side, forming part of Ellough airfield. It proposes 46 biodiesel generators, designed to provide an emergency electricity supply to the national grid (using the connection provided for the solar farm). The generators themselves are housed in metal cabinets.
- 1.2 The application comes before the Committee as it is a major application. It was deferred from the previous meeting to allow further consultations to take place.

SITE DESCRIPTION

- 2.1 The site forms part of Ellough Airfield on the north side of Benacre Road. It comprises two areas, one measuring 42.1 metres by 31.73 metres on the eastern side of an existing concrete roadway and the other measuring 64.2 metres by 22.32 metres on the western side. Access to the site would be via the existing vehicular access from Benacre Road. The total site area (including the access road) is 0.4869 hectares (1.2 acres).

PROPOSAL

- 3.1 The proposal is for the installation of 46 biodiesel generators.
- 3.2 As the proposal is slightly unusual, the following text is taken from the application supporting material:
- 3.3 “National Grid are responsible for balancing the country’s electricity systems, managing generation output to ensure it matches demand throughout the day, and that voltage and frequency are kept within acceptable limits. At certain times of day, National Grid requires access to additional sources of power to be able to deal with actual demand being greater than forecast demand and/or unforeseen generation unavailability.
- 3.4 The generators Lark Energy are proposing to install would provide the National Grid with emergency electricity supply in under 10 seconds. This is the last form of defence against an electricity blackout in the UK.
- 3.5 The site has been selected due to its proximity to the Ellough solar farm (with associated grid connection) and the availability of suitable and appropriate land. This form of energy supply works well in conjunction with solar farm grid connections, as a solar farm connection is required for the maximum export capacity of the installation, however, this is only achieved in optimal conditions and there is, therefore, excess unutilised capacity for generation to the network at these locations in hours of darkness or low levels of light. It is also typically during hours of darkness when emergency back-up energy generation is required (cold dark evenings when people are indoors making full use of heating and lighting).
- 3.6 The development would connect to the National Grid via an underground cable to the DNO substation on the nearby Ellough Airfield solar farm site. This cable will be subject to a further planning application.
- 3.7 As the generators are primarily proposed to be installed to act as a backup energy supply in times of emergency, they are expected to only operate for a maximum of around 100 hours per year. Approximately sixty to seventy percent of the generation time is forecast to occur between 1st November and 28th February, weekdays between the hours of 16:00 and 20:00, i.e. the times of year and day when energy demand peaks (cold and dark evenings). Approximately twenty percent of energy generation would be likely to occur at the same times of day, but throughout the months of March to October. It is estimated that the remaining ten to twenty percent could be called upon at any time, as is the nature of emergency energy supply. The generators are typically only expected to run for 30 minute periods, but may be required to run up to two hours in some instances.
- 3.8 The sites will be remotely monitored and operated. Maintenance and servicing would be carried out quarterly in the first year of operation, to ensure there are no issues to prevent response in an emergency call from National Grid. Maintenance and servicing would be carried out bi-annually thereafter, supported by ad-hoc call-outs to assess any issues raised through remote monitoring. Due to the infrequent need to operate the generators, fuel deliveries are projected to occur on a monthly basis only.

- 3.9 The generators will be fuelled with a biodiesel made from process residues, in this case, fish oil residues. The fish oil residues are processed into a fuel that is a direct substitute for diesel. The fuel is odourless, both in storage and during use.
- 3.10 The fuel is classed as 'zero carbon' under the Renewable Energy Directive. The CO₂ rating incorporates the growing of any biofuels, however, no growing process is required for the production of this fuel, as it is a by-product of industry. This results in a very low carbon index of 13g CO₂ per MJ, compared to 84g CO₂ per MJ for diesel.
- 3.11 The fuel is similar to diesel with regard to flammability (i.e. less flammable than petrol) with a typical flash point >120°C. The fuel is also biodegradable, non-carcinogenic and non-hazardous.
- 3.12 All fuel delivery vehicles are equipped to handle minor spills with staff trained in how to coordinate a response to major spills. Fuel tanks are internally bunded within the generator base frames, for additional protection.
- 3.13 The development would comprise of 46 bio-diesel generators, sufficient to supply 19MW of electricity generation, when called upon to operate. The development is split into two fenced areas, the northern site measures approximately 64m x 22m, housing 22 generators, the southern site measures approximately 42m x 32m and contains 24 generators.
- 3.14 Each generator measures 4.5m by 1.8m, with a height of 2.34m. Each 4 generators would also be accompanied by its own transformer and switch gear, used to step power levels up to 33kv for export to the electricity network, and to safely disconnect the generators from the rest of the system, respectively. The transformers and switch gear will be housed in shipping containers, measuring approximately 6m by 2.4m, and standing approximately 2.9m in height. There is a requirement for a total of 12 switch gear and transformer units on site.
- 3.15 In addition, a single customer substation will be required. This will house metering equipment, and also acts as a further safety point to disconnect the entire site from the wider electricity network if required. The customer substation measures approximately 5.6m by 3.7m, with a height of approximately 2.7m.
- 3.16 Each generator requires 1 meter of free space on all sides, meaning a minimum of 2m separation between units. Adequate space has also been left for a tractor or 4x4 vehicle to drive within the fenced compound, for servicing and refuelling.
- 3.17 All of the equipment on the two sites will be enclosed by acoustic fencing, which is proposed to be a thick timber fence of 2m in height. This will be accompanied by a 2m high 6m gate, one for each site. The generators, transformer/ switch gear and customer substation will all be finished in either green or grey, or as specified by the LPA.
- 3.18 An existing access to the public highway will be used to connect the site with the road network. This access is suitable both for construction traffic, and for long-term operation of the site.
- 3.19 Fuel deliveries are expected to be made to the site by standard 28,000 litre articulated fuel delivery vehicles, although smaller vehicles may be used depending on refuelling requirements and wider logistics. Fuel will then be loaded onto a tractor with bowser, which will then access the site directly for the refuelling of individual generators. Adequate access has been allowed within the site for this purpose.
- 3.20 It is anticipated that construction will be complete in a maximum of 6 weeks. Positioning of equipment will be carried out by fork-lift or small crane".

CONSULTATIONS/COMMENTS

- 4.1 **Neighbour consultation/representations:** one objection has been received from the occupier of 70 Coney Hill, Worlingham stating: "We already have a bio plant at Ellough which causes pollution despite the original application stating there would be none. The noise and potential smell from this application so close to a residential area is not welcome."
- 4.2 A further objection has come from 33 Rectory Lane, Worlingham, expressing concern on a number of points, including:
- This appears to be a disturbing development when one considers that aircraft taking off from Ellough Airport and the Kart racing can clearly be heard from the Rectory Lane/Ashtree Close/ Cedar Drive/ Rowan Way residential areas.
 - The generation of 19MW, burning a form of carbon based bio-fuel, will also cause the exhaust discharge/production of a large amount of NOx, ozone, particulates and other pollutants, especially from 46 generators.
 - Noise will be another issue and the suggested 'wooden acoustic fence' will probably be totally ineffective, especially as there appear to be no noise data, Db(A) or frequency indications or noise studies for the individual and/or collective machines.
 - There is also no indication of any exhaust particulate traps or exhaust cleaning to reduce NOx etc. Neither is there a detailed analysis of the fuel involved and the limitation on certain other possible substitute fuels.
 - With the recent research into diesel exhaust pollutants, surely this is a retrograde and unacceptable development.
 - Neither is there any indication of the type and efficacy of the exhaust attenuators. The impact of 46 machines running in tandem needs to be investigated in detail especially when one considers the proximity of residential areas.
 - Also, there does not appear to be any reference to the amount of fuel stored on site, or it's security, considering the site is unmanned. Fire, arson, vandalism, deliberate or accidental spillage etc. cannot be ruled out.
 - The term 'emergency use' can also be interpreted in various ways by the operator to mean that the machines can be run at any/all times deemed necessary by him to show a return or profit to his company. There is therefore, no control on running hours, no control on noise, no control on pollution and no control on the security of the fuel on site.
 - I have no doubt, in my extensive experience of diesel generators, that these machines, running at maximum continuous rating, will be audible to many residents in the Worlingham, Ellough, N Cove areas.
- 4.3 A third letter from 29 Rectory Lane says they share the concerns raised above.
- 4.4 **Ellough Parish Council Comments:** Following a review of this application the council approves this application provided noise and pollution levels are within permitted levels..
- 4.5 **Worlingham Parish Council Comments:**
- 4.6 **Mutford Parish Council Comments:**
- 4.7 **Hulver Parish Council Comments:**

Consultees

- 4.8 **Civil Aviation Authority** was consulted on the 31 July 2015.
- 4.9 **WDC Environmental Health - Contaminated Land:** Having considered the site location, the records held by this department, the information supplied with the application, and the

nature of the proposed development I have no adverse comments to make with regards to matters concerning contaminated land.

- 4.10 **WDC Environmental Health - Pollution:** My initial thoughts are that both the noise and air quality impacts need to be assessed.
- 4.11 Although the location is the Ellough Industrial Estate, there are one or two sensitive receptors in close proximity and this was indicated when Lark Energy commissioned and submitted a noise assessment in their planning application for the nearby solar farm. I would expect the production of energy from bio-diesel generation to be a noisier operation than the capture of solar energy using a solar array.
- 4.12 The applicant must demonstrate that both noise and emissions to atmosphere will not give rise to a significant impact at the nearest residential receptors. The developer states that the biodiesel generators will be in operation for about 100 hours a year, however, it is reasonable to take a precautionary approach and assume that the period of operations may be 365 days a year.
- 4.13 In terms of the air quality assessment report prepared by Redmore Environmental.
- 4.14 There are three points from the assessment to be aware of :
- 4.15 Emissions from the development have been modelled to the level of a maximum of 100 hours a year, which is in line with the planning consent being sought and if the operating time was greater then the emissions would be greater, so it would be appropriate to limit the operation of generators to 100 hours per year by a specific condition.
- 4.16 As the result of the emission of pollutants from the combustion processes there is likely to be an exceedance of the national air quality objectives within the site and ownership boundaries, however, this does not cause a problem unless a relevant receptor is introduced at a later date. I think that this is very unlikely to occur.
- 4.17 There is unlikely to be an exceedance of the air quality objectives at existing locations of relevant exposure in accordance with the Local air Quality Management technical guidance TG(09).
- 4.18 Other than regarding noise levels the Environmental Protection Team do not have any objections to this development in respect of the impact on local air quality.
- 4.19 **Suffolk Wildlife Trust:** Thank you for sending us details of this application, we have the following comments:
- 4.20 This site lies directly adjacent to Ellough Grove North County Wildlife site (CWS). We therefore request that care is taken during the construction stage to limit building work within the boundaries of the development site. This also applies to the movement of vehicles and the County Wildlife Site should not be used for parking or turning of construction vehicles, or the temporary storage of building materials.
- 4.21 It should also be ensured that the proposed development does not encroach into the CWS and that any construction or operation lighting does not result in light spill into the CWS.
- 4.22 **Suffolk County - Highways Department:** Notice is hereby given that the County Council as Highway Authority make the following comments:
- 4.23 "My interest is to protect the highway from parking and loading therefore if the fuel transfer area was to be included within the red line boundary of a revised layout then I would recommend a condition similar to below.

- 4.24 Condition: The use shall not commence until the area within the site shown on Drawing xxx for the purposes of loading, unloading and manoeuvring vehicles has been provided and thereafter that area shall be retained and used for no other purposes.
- 4.25 Reason: To ensure the provision of adequate on-site space for the parking and manoeuvring of vehicles where on-street parking and manoeuvring would be detrimental to highway safety to users of the highway.
- 4.26 If you consider this to be a condition that you would support I would be happy to receive a revised drawing to include the fuel transfer area within the red line boundary.”
- 4.27 **Suffolk County Archaeological Unit** was consulted on the 31 July 2015.
- 4.28 **Environment Agency** was consulted on 18 August 2015.

PUBLICITY

- 4.29 The application has been the subject of the following press advertisement:

Category	Published	Expiry	Publication
Major Application,	07.08.2015	27.08.2015	Beccles and Bungay Journal
Major Application,	07.08.2015	27.08.2015	Lowestoft Journal

SITE NOTICES

- 4.30 The following site notices have been displayed:
- | | |
|---------------------|---|
| General Site Notice | Reason for site notice: Major Application, Date posted 4 August 2015; Expiry date 24 August 2015. |
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PLANNING POLICY

- 5.1 The Waveney Core Strategy was adopted in January 2009. Policy CS01 sets the Spatial Strategy for the District and policy CS02 seeks high quality design.
- 5.2 The Development Management policies were adopted in 2011. Policy DM02 sets design principles and policy DM03 seeks to promote low carbon and renewable energy.

PLANNING CONSIDERATIONS

- 6.1 This site is in open countryside in planning policy terms, but there is a considerable amount of development in the vicinity, including the Ellough industrial estate and anaerobic digestion plant on Copland Way, the solar farm and crematorium (the latter currently under construction) on the south side of Benacre Road and the various agricultural and other buildings on the airfield itself.
- 6.2 Development Management policy DM03 is the most relevant policy in relation to this application. This states (in part) that:
- 6.3 “Proposals for stand alone energy generation and other CO2 reductions will generally be supported. The District is seeking new renewable energy generation capacity to deliver an appropriate contribution towards the UK Government's binding renewable energy target...Renewable energy schemes will be permitted where:
- There are no significant adverse effects or cumulative adverse effects upon the landscape, townscape and historic features;
 - There are no significant adverse effects on the amenities of nearby residents by way of noise, dust, odour or increases in traffic; and

- The wider environmental, economic, social and community benefits directly related to the scheme outweigh any potentially significant adverse effects.”

- 6.4 In this case the site is not of particular landscape interest; it falls within the “Saints Plateau – West Landscape Character Area”, but the particular location is on part of the airfield, close to existing agricultural buildings and the Haywards depot.
- 6.5 The Suffolk Wildlife Trust has pointed out that the site is adjacent to the County Wildlife Site; the application does now include a plan identifying the construction compound, which is outside the CWS. A condition to control lighting is however proposed.
- 6.6 There is no impact on townscape or historic features. There should be no significant adverse impacts on nearby residents; the nearest dwellings are at Hill Farm, Warrens Lane approximately 570 metres to the south west and Butterfly Hall and Red House on Hulver Road approximately 670 metres to the south east.
- 6.7 The structures are relatively low; the transformer containers are the tallest item, at 2.9 metres. The site is intended to be surrounded by a 2 metre high acoustic fence. The site will generate little traffic; once built a monthly fuel delivery and an occasional maintenance and servicing visit.
- 6.8 The Council’s Environmental Health team has considered noise pollution from the proposals as set out within the terms of the applicants supporting report. Officers consider that operational noise levels as currently proposed may be intrusive upon the amenities of sensitive receptors (near neighbours), the noise exceedance is running in the region of 10 dBa above background noise levels. It is therefore desirable to seek a negotiated solution to reduce the operational noise levels to such a level that they will be within a closer tolerance to the existing background noise levels. Officers consider that there is a reasonable balance of probability that this can be achieved by further negotiations between the Council’s EHO team and the applicant’s acoustician. Upon this basis that officer’s rest that a revised solution can be sought to achieve noise levels which will accord with local plan policy DM03.

CONCLUSION

- 7.1 With the proviso highlighted above this development may be considered to have a relatively limited impact and will provide a useful emergency source of power for the National Grid. Accordingly the application is recommended for approval.

RECOMMENDATION

That Authority is delegated to officers to seek a scheme for the reduction of operational noise levels to be within closer tolerance to local background noise levels and that subject to a suitable solution being delivered that permission is then **GRANTED** subject to the following conditions, together with any further conditions required to ameliorate noise impacts:

1. The development hereby permitted shall be begun within a period of three years beginning with the date of this permission.

Reason: In accordance with Section 91 of the Town and Country Planning Act 1990 as amended.

2. The development hereby permitted shall not be brought into use until it has been completed in all respects strictly in accordance with drawing numbers ELL-EG-DWG001 version 2, ELL-EG-DWG007, ELL-EG-DWG011, ELL-EG-DWG012, 05-J7/02161 and 06-J7/01043; received 14 July 2015, and ELL-EG-DWG002, ELL-EG-DWG010 and ELL-EG-DWG003 version 2 received 17 August 2015, for which permission is hereby granted or

which are subsequently submitted to and approved in writing by the Local Planning Authority and in compliance with any conditions imposed by the Local Planning Authority.

Reason: To secure a properly planned development.

3. The use shall not commence until the area within the site shown on Drawing ELL-EG-DW003 version 2 for the purposes of loading, unloading and manoeuvring vehicles has been provided and thereafter that area shall be retained and used for no other purposes.

Reason: To ensure the provision of adequate on-site space for the parking and manoeuvring of vehicles where on-street parking and manoeuvring would be detrimental to highway safety to users of the highway.

4. Details of any external lighting (including construction and operational lighting shall be submitted to and approved in writing by the Local Planning Authority before development is commenced. Development shall be carried out in accordance with the approved details.

Reason: to ensure that any lighting does not impact on the adjacent County Wildlife Site.

BACKGROUND INFORMATION:

See application ref: DC/15/2823/FUL at
www.waveney.gov.uk/publicaccess

CONTACT

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