

18 June 2020

## Information relating to a planning application for a digestate storage lagoon - planning application ref. PA/2020/572

<https://apps.northlincs.gov.uk/application/pa-2020-572>

We have recently submitted a planning application for a liquid digestate storage lagoon close to the existing Merlin Renewables site and we would like to outline our proposal and offer answers to some of the questions that may arise, in the Q&A section below.

Since 2015, the plant has taken biomass break crops grown on local farms which are stored on site to produce both low carbon energy and a valuable organic fertiliser and soil improver. The gas we produce through Anaerobic Digestion (A.D.) is injected into the gas network via existing underground gas pipes. Residents of both Redbourne and Hibaldstow, who are on the gas network, will thus be directly using green gas made at our plant.

The digestate, which is a by-product of the A.D. process, can be used to replace inorganic fertilisers creating a closed loop nutrient cycle back to land. Digestate is typically more available for plant uptake than traditional inorganic mineral fertilisers. This is beneficial to farmers by helping to provide the appropriate range of nutrients for crop requirements compared to inorganic fertilisers. This in turn reduces the risk of leaching and run off and so can prevent diffuse water pollution. By replacing inorganic mineral fertiliser - the production of which requires significant energy input – A.D. is also able to provide additional benefits in terms of reducing greenhouse gas emissions; A.D. is in a position to provide CO<sub>2</sub> sequestration and additional carbon capture that already occurs when the organic matter within the digestate is applied to the soils.

The digestate storage lagoon will be fitted with an anchored cover and the area around the lagoon will be bound by fencing and a security gate. The facility will allow the transfer of liquid digestate, using recently upgraded underground pipe work, to an off-take tank near Mill Road with easy access to the A15. The proposed lagoon will also allow the transfer of liquid digestate via existing underground pipework to other surrounding agricultural land. This will greatly reduce the need for vehicles to travel to and from the AD facility to remove the liquid and allow the reduction of traffic passing through both Redbourne and Hibaldstow and some of the outlying residences.

We have engaged independent experts to assess and report upon any potential impacts within the surrounding area, including odour, air quality, ecology, and visual impact and these are available via the planning portal. An Unexploded Ordnance risk assessment was also carried out because the proposed development site resides within a former airfield.



One of our core values is to be a positive factor in the communities within which we operate by helping a variety of local projects. We are delighted that we have been able to contribute over £23,000 locally since 2015. Specific highlights include a contribution towards vital funds for the Redbourne Fire Engine Conservation project in 2016; last year, we sponsored Holme Valley Primary School, Hibaldstow Village Hall and Playing fields improvements, Hibaldstow Village Voice magazine, Redbourne children's play area regeneration and the Rotary Club of Brigg Christmas hamper appeal. We hope that our involvement within the community continues with such a positive impact during 2020.

Renewable energy from biogas is a valuable part of the UK's energy future and helps to reduce our use of foreign fossil fuel imports. It also contributes towards meeting the UK's legally binding target to reduce greenhouse gas emissions (GHG) by over 30% by 2020 and at zero by 2050. The development will continue to be fully sustainable and regulated under new Government guidelines and will support local economic growth as well as assisting farmers develop and diversify their agricultural businesses.

If you require any further information or have any questions, please contact [gill.mcmurray@futurebiogas.com](mailto:gill.mcmurray@futurebiogas.com) .

### Site location plan for the proposed new Lagoon



## Questions and Answers

***Q: Who will be responsible for the lagoon?***

A: Future Biogas Ltd. (FBL) operate and manage the site of behalf of Merlin Renewables Ltd. FBL operate a further 12 Anaerobic Digestion plants and associated digestate lagoons in the U.K., largely around Norfolk and Lincolnshire. The FBL Farming team have responsibility for the management of feedstocks and digestate at the Merlin Renewables site and have successfully installed and managed digestate lagoons at several other sites.

***Q: Will the lagoon be a health risk for local residents?***

A: No – there is no risk either in terms of gases produced nor flammability. The gas produced by the AD plant is injected directly into the National Gas Grid. Only the liquid digestate by-product would be stored in the lagoon.

The Merlin plant processes crops only (no waste such a pig or chicken manure) and digestate, the by-product of the gas-making process, comes in both solid and liquid form. During ‘spreading’ season which occurs for 6 months of each year, the liquid digestate is spread directly to the farms and fields around the site as an organic fertiliser.

An ammonia assessment was independently produced to ensure that there would be no detrimental affect upon nearby ecology and the resultant impact was classified as not significant.

There are no toxic gases resulting from digestate and it is non-flammable.

***Q: Will the lagoon smell?***

A: We take very seriously the amenity of our neighboring businesses and residents. An independent odour assessment was produced to review any plant items currently on site (potential odour sources) together with the proposed digestate lagoon.

The assessment was based upon the size and nature of the proposed lagoon, the design (including a permanent cover), development location, dispersion patterns and positioning of sensitive receptors\*. Meteorological files were used to consider wind speed and direction at the location.

The odour concentrations were assessed as being below the benchmark and ‘not significant’ at all locations in the vicinity of the site.

An Odour Management Plan has been independently produced in accordance with Environment Agency guidance to ensure that monitoring and contingency plans are in place at all times to minimise any potential odour pollution and to prevent unacceptable odour pollution at all times. We operate under these conditions at all the sites that we manage and these are part of the standard operating procedures.

\* sensitive receptors are areas where the occupants are more susceptible to the adverse effects of exposure e.g. odour

***Q: Why can't the lagoon be built in a more remote location?***

A: Currently, liquid digestate is removed from site via HGV tankers. The lagoon, which would be sited approximatley 1km from the villages of Hibaldstow and Redbourne, will enable the liquid digestate to be

pumped from site directly to the lagoon for a period of storage; the digestate will be pumped back to an onsite storage tank before being pumped via sealed, underground pipework to an offtake point near Mill Road.

Merlin Renewables, in conjunction with local landowners, have upgraded existing underground pipework in order to facilitate this - the intention and result of which will be a net decrease in the amount of traffic to/from the AD plant and, therefore, a reduction in site traffic travelling via local routes.

***Q: Will the lagoon be visible from Carr Lane/the local villages?***

A: A Landscape and Visual Impact assessment was independently produced in order to model and measure any impact upon the local landscape.

The views from publicly-accessible areas are heavily influenced by the screening of hedgerows and woodland. From Carr Lane, the lagoon would be potentially visible from certain viewpoints. The low banks, approximately 2m high with gentle landscape are considered to be a very minor element in visual terms.

***Q: What measures would be in place to keep the lagoon safe and secure?***

The lagoon will have a very strong, permanent cover which will be secured to the ground; the integrity of the cover will be regularly checked by site operators as part of their operational procedures.

The lagoon will be fitted with rope ladders both as a precautionary measure and to provide assurance to members of the parachute club that safety measures will permanently be in place.

The lagoon site will be secured with a 1.8m high fence and with a security gate. Skydive Hibaldstow will be offered a key in order to allow them permanent access to this site.

***Q: Why was an Unexploded Ordnance risk assessment and survey carried out?***

A: The site is part of the former RAF Hibaldstow which operated under fighter command and as a satellite station for RAF Kirton-in-Lindsey. It has been used as agricultural land since the early 1960's and latterly for Sunday markets and the local parachute club.

The detailed assessment was carried out in order to assess any risk of Allied ordnance contamination of site. No active risk mitigation measures are required. During the construction phase, awareness briefings and a management plan would be provided to ensure the safety of all workers and staff.

***Q: Why are the reports attached to the planning application so long and complicated?***

A: The reports accompanying the application are required to properly and independently assess the impact of the proposal. These reports are read and considered by the local planning officer and statutory consultees such as the Environment Agency, Environmental Health Officer, Drainage Board, Highways etc. If there are any queries relating to the information provided or further information is required before a planning decision can be made, we try to provide this as quickly and thoroughly as possible.

The Design and Access/Planning Statement provides a helpful summary of the findings within these reports.

***Q: When was the planning application submitted?***

A: Preparation for the application began during 2019 and was initially submitted on April 1<sup>st</sup> 2020. Due to the current circumstances, it was validated by North Lincs. CC and available for public view from 7<sup>th</sup> May.



***Q: What does this mean for the future plans of Merlin Renewables?***

A: The digestate lagoon is not part of an expansion plan but proposed in order to streamline operations and reduce traffic within the local area. There will be no increase in the amount of digestate produced as a result of this development and it does not require any expansion of the A.D. plant itself.

***Q: How can we find out more about it?***

A: If you have any questions or queries relating to this planning application or our operations at Merlin Renewables, please feel free to contact us at the following address: [gill.mcmurray@futurebiogas.com](mailto:gill.mcmurray@futurebiogas.com)