

SCOTTISH BORDERS COUNCIL

PLANNING AND BUILDING STANDARDS COMMITTEE

8 DECEMBER 2014

APPLICATION FOR PLANNING PERMISSION

ITEM: 14/00763/FUL
OFFICER: Lucy Hoad
WARD: Berwickshire
PROPOSAL: Installation of anaerobic digestion sustainable energy plant
SITE: Ravelaw Farm
Whitsome
Duns
Scottish Borders
TD11 3NQ
APPLICANT: Ivor Gaston
AGENT: Bain Swan Architects

SITE DESCRIPTION

The site is located to the West of Whitsome along a minor C road which links between the B6437 and the B6460. The proposal lies to the North of Ravelaw Farm, 40m to the west of the Farm Bungalow, with the steading and the former farm worker cottages to the south. Open fields lie to the north, east and west. The farm cottages and new build housing sit approximately 100m to the south of the site.

PROPOSED DEVELOPMENT

The proposal is for an anaerobic digestion plant to generate electricity. The plant would be sited within an agricultural field to the north and east of the steading and adjacent to the existing sheds,

The plant comprises of 2 No digesters set underground (36.3m by 13.1m) with solids feeder, separator and tower, and an underground liquid digestate store (32.3m by 18.4m), The digester tanks would be constructed of concrete (outer membrane cover green) and the store would be constructed of concrete panels, and have a protective screen enclosure atop 1.5m (box profile cladding/juniper green).

The proposal also includes a process building (7.0m x 4.9m), a 250eKW combined heat and power unit,(CHP), a gas holder 8.0 x 4.0m (concrete base, outer membrane Green RAL 6026), and new storage building 73m x 18.3m (box profile cladding Juniper Green) for hay and farmyard manure.

The anaerobic digester would use agricultural waste to produce electricity and heat energy. All feedstock would come from the farm, such as pig slurry, grass silage and farm manure. Pig slurry from the herd will be pumped to the digester and farm yard manure and silage will be fed into a feed-in hopper. The end product is then spread on the land as fertiliser. Gas from the digester tanks is fed to the CHP container.

Electricity produced by the CHP unit will be used on the farm or exported to the grid; heat will also be used on the farm.

PLANNING HISTORY

There is a history of development at and adjoining Ravelaw Farm including the erection of modern sheds, and **conversions** and new houses having been granted permission previously.

01/00991/FUL	Erection of general purpose agricultural building	21.08.2001
05/00833/OUT	Erection of dwellinghouse Plot 1	21.07.2005
05/00834/OUT	Erection of dwellinghouse Plot 2	21.07.2005
05/00835/OUT	Erection of dwellinghouse Plot 3	21.07.2005
05/00836/OUT	Erection of dwellinghouse Plot 4	21.07.2005
06/01148/REM	Erection of dwellinghouse, carport, workshop	11.08.2006
06/02455/REM	Erection of dwellinghouse	08.02.2007
07/01184/REM	Erection of dwellinghouse with integral garage	08.08.2007
09/00893/FUL	Erection of dwellinghouse/detached double garage	20.11.2009
11/00453/FUL	Erection of replacement agricultural building	06.06.2011
12/00549/FUL	Erection of agricultural building	14.06.2012

Other applications

06/01979/OUT	Erection of four dwellinghouses	Refused 27.02.2007
07/00251/REM	Erection dwellinghouse/ integral garage	withdrawn 14.06.2007
14/00296/FUL	Installation of anaerobic digestion sustainable energy plant	Withdrawn 03.07.2014

REPRESENTATION SUMMARY

Nearby residents have expressed a range of concerns over the proposed development. Representations (objections) have been received from 17 Households. These are available for Members to view on the *Public Access System*. The following planning issues have been raised:

Layout and Design

- Density of the site
- Scale of buildings
- Proximity to residential properties
- Sited too close to residents dwellings
- Within 250m of properties
- Contrary to local plan/SEPA
- Poor design
- Height of structures

Landscape and visual impact

- Cumulative impact of continuous expansion
- Oppressive nature/scale of development
- Negative visual impact
- Proposal out of character with the area
- Inadequate boundary treatment/Inadequate screening
- Impact on trees/landscape

Health/safety

- Health and wellbeing
- Quality of life

Emissions
Fire safety/risk of explosion
Proximity to residents
Drying of woodchip plant/not mentioned in environmental statement

Amenity

Detrimental to residential amenity
Too close to residential property
Noise from plant
Noise from livestock
Noise in rural area
Noise management
Loss of privacy
Storage of farmyard manure
Smells and odour management
Prevailing wind is north west contrary to Environmental Health comment
Impact on water supplies
Fly issues
Increase in vermin
Overlooking
Fundamental issues that cannot be alleviated by imposition of conditions
Conditions are weak
The authority has already rejected an application for a pigeon loft in respect of neighbour nuisance

Access and Traffic

Increase in vehicular traffic
Inadequate access
Narrow roads
Road safety

Environment

Inadequate drainage
Impact on wildlife
Loss of agricultural land
Detrimental to the environment

Economic

Loss of prime agricultural land
No economic benefit for residents
Impact on local economy
Impact on tourism/trade/local business

Other issues raised

Lack of details and information gaps
Over provision of facility in area
Livestock numbers
Applicant agreed to remove all piggery operations
Pig operations should have ceased as per condition on earlier consents
Approved shed was for cattle 11/00453/FUL
Implied expansion
Loss of view
Impact on value of property/saleability of property

APPLICANTS' SUPPORTING INFORMATION

The application is accompanied by site location and layout plans, elevations and drawings, statements to include an environmental statement, odour management plan and manufacturer's report. These are available for Members to view in full on the *Public Access System*.

The main points covered include:

Business Case

The applicants seek to reduce both their energy costs and carbon footprint by reducing their present imported energy costs and a reduction /elimination in the use of artificial fertilizers.

The installation of a small-scale Anaerobic Digester which will provide a sustainable waste to energy development. The AD process will operate on a continual 24hr/day, 365 days/year basis.

The applicant intends to employ a full time expert to manage and run the AD plant. Ten plus workers will be required to erect the AD plant with most sourced locally and most of the building materials sourced locally. This will benefit the community

Siting, scale and design

- The proposed AD plant is a small-scale modular unit
- The layout is designed to maintain a connection with the existing steading complex
- Sited to minimize the visual impact particularly from the adjacent housing group and Whitsome village
- Evergreen Gas pre-cast concrete sectional tank modular system with associated Digestate Store, Gas Holder, Solids Feeder, Separator and Tower (North West)
- 250kW Combined Heat and Power (CHP) unit to generate electricity
- The AD plant is 3.0m high from floor level to the underside of the roof units.
- The plant is a partially-buried design with 2.0m of the AD plant below ground level.
- The steel portal framed Feedstock Store building (North East) measures 73.2m x 18.3m wide with a ridge height of 9.47m, clad in profile steel cladding Juniper Green

All feed materials are sourced/grown on the farm

- Farm Yard Manure (FYM) from the existing livestock buildings -annual total in the region of 4,000T.
- The weekly muck-out of approx. 77T will be fed to the AD
- No storage is required for FYM.
- The proposal will not require any increase in livestock numbers at Ravelaw (currently 1800-2000 pigs).
- Hybrid Rye grown on the farm approx. 2,000T annually harvested and ensiled in the new portal frame building. The Hybrid Rye will be fed to the AD at a rate of approx. 40T per week.

- Surplus straw from the farm approx. 1,000T annually fed to the AD plant at a rate of approx. 20T per week.
- The AD plant will be fed once/day.

Traffic movement and supply

- The Farm Yard Manure is sourced directly from the livestock buildings
- The Rye (80 hectares) is grown on the farm
- The Rye and straw from the fields to the North and East of the steading will be harvested and transported to the plant via the existing off-road farm tracks.
- No feedstock is transported by public road.

Water supply and discharge

- Water for the AD is required to maintain the operating temperature range of 37-42degC by circulation of hot water through an internal heat exchanger, this water is re-circulated.
- The water supply will be sourced from a borehole on the farm with a daily requirement of 10m³ maximum.
- There is no discharge of water from the AD
- Any surplus water is re-circulated through the Digester

Safety

- The construction process of the plant ensures that the installation is fully watertight
- The commissioning process is air tested to ensure no leaks with a commissioning certificate being issued only when no leakage is detected.
- The operation of the AD plant is fully automated via control systems located within the on-site Process Building
- Full training is provided relating to the operation of the plant
- On-going service provided throughout its working life
- In the event of a situation where the gas generated cannot be provided to the CHP there is a requirement to “flare off” the gas.
- With the Evergreen Gas system there is no flame “flare off”.
- As an alternative this is managed by the presence of a biogas hot water boiler which is specified to take up to 100% of the delivered biogas.
- This biogas is the fuel for the boiler to generate hot water which is circulated through a fan cooled radiator system thus providing the “heat dump” until the CHP is brought back on-line.

Odour

Odour Management Scheme will be in place designed to minimise potential odours.

Noise

- The Combined Heat & Power (CHP) is a 250ekW 60Hz CENERGY Agenitor Series The CHP is supplied and installed in a sound attenuated container (decibel reading of 68dB at 1.0m).
- Noise levels will be monitored as part of the system management documentation.

Construction works

- Works will be carried out in accordance with the HSE Construction (Design and Management) Regulations 2007.
- Traffic movement during construction would be 3 lorries per week for 10 – 12 weeks.
- Preferred route of construction traffic is the minor access road from the North from its junction with the B6460 road near Blackadder West.
- This route relatively straight and includes 4 No passing places

CONSULTATION RESPONSES:

Scottish Borders Council Consultees

Landscape Architect: No objection subject to condition in respect of additional planting. I am satisfied that the proposed buildings are well screened by existing buildings and are well distant from potential sensitive residential receptors. The proposals are also of a scale with existing farm buildings.

Environmental Health: No objection subject to conditions in respect of odour, air quality, noise control, inputs (waste and crops).

Odour: AD Plant will be fed at 9.00am daily and this should take 20 minutes. There is potential for odour issues when the proposed daily rate of 20 tonnes (manure, rye, straw) is loaded into the Solids Feeder. The straw and hybrid rye will be stored within a sealed enclosed building and covered with heavy plastic sheets to contain odour. Farmyard manure will be removed directly from the pig sheds on a daily basis. Mucking out will take place more frequently than at present and it is anticipated that this should reduce the build up of manure and subsequent odours. The applicant states he will refrain from mucking out if there is a north wind which is likely to disperse pig manure odours towards neighbouring residential properties. Prevailing wind is from the south west. Under these conditions potential for nuisance is negligible.

Air Quality: From the information and knowledge we have on these installations/systems it is unlikely that there will be an adverse impact on local air quality. The applicant is required to conduct a screening assessment with reference to Scottish Air Quality Objectives. The plant manufacturers have provided information which indicates that the digestate is stable, benign (with inoffensive mild odour), the sulphur produced will remain stable (without causing odour issues) and the biogas will not be released into the atmosphere.

Buffer zone: SPP recommends a 250m buffer zone may be appropriate for operations such as outdoor composting, anaerobic digestion, mixed waste processing, thermal treatment or landfill gas plant. Small scale digestion plants process in the region of 40,000 tonnes of waste products per annum. Based on the applicant's figures the development will process 7,000 tonnes per annum. Based on the information provided in the Environmental Statement July 2014, the Evergreen Gas Ltd documentation August 2014 and the report from SEPA a buffer distance of 250 meters is not considered necessary to mitigate against potential air quality and odour issues.

Regulatory advice: SEPA have provided a statement that considers the proximity of sensitive receptors to AD plants in terms of bio aerosols and refers to national advice that odour emissions should be no worse than from the pig farm itself. Should permission be granted the applicant would need to apply to SEPA for an exemption under the Waste Management Licensing (Scotland) Regulations 2011. Although the activity may be exempt from waste management licensing, it is still subject to statutory controls to prevent pollution or harm to human health and would be subject to a condition that nuisance will not be caused through noise or odours.

Noise. The CHP generator will produce a noise level of 65db(A) at 1 metre from the exhaust. Given distance to noise sensitive dwellings and barrier effect of the farm buildings there should be no adverse noise impact assuming regular plant maintenance is carried out.

Contaminated Land: No comment

Archaeologist: No objection. There are no known archaeological implications for the revised scheme.

Roads Planning: No objection. Main points raised:

There is unlikely to be a significant increase in traffic movements on the public single track road serving the site.

The farm yard manure which is to be fed into the digester is already contained within the farm steading, so it will not require to be transported to the farm.

The hybrid rye and surplus straw which is to be fed into the digester is to be transported via off-road farm tracks.

The indigestible material left over is to be used as fertiliser for the farm, which has the potential to reduce the amount of artificial fertiliser imported to the farm.

Should any vehicle movements require to use the public road –

the C99 benefits from having a number of constructed passing places between the B6460 (Blackadder West) and B6437 (Whitsome).

There are a number of informal passing places such as field entrances.

Ecologist: No objection subject to conditions in respect of protected species. The development site is located on arable land approximately 130m from the Leet Water which contains grayling. There is the potential for impacts on protected species notably badger, particularly in regard to foraging and commuting across the site, and breeding birds. I recommend that a Badger Mitigation Plan be supplied by the developer and precautionary measures be implemented in regard to any potential impact on breeding birds.

Statutory Consultees

HSE No requirement for Hazardous Substance Consent

It appears from the information that the quantities to be stored will not be above the Hazardous Substance Consent threshold of 10 tonnes for Extremely Flammable Gas. However the responsibility for Hazardous Substance Consent rests with the Hazardous Substance Authority, which in most cases is the Local Authority. From a Land Use Planning perspective, as the site is not within the vicinity of a Major Hazard Site or Major Accident Hazard Pipeline, then HSE would have no further comments to make regarding the application.

SEPA: No objection subject to informative in respect of regulatory advice.

Regulatory requirements

The activity appears to be exempt from waste management licensing however, it is still subject to statutory controls to prevent environmental pollution and harm to human health. SEPA advise that the applicant contacts the Borders Operations team if any further guidance is required with respect to the waste management exemption.

Scottish Planning Policy, paragraph 191, states that planning authorities should consider the need for buffer zones between dwellings and suggests that 250m between sensitive receptors and operations such as anaerobic digestion.

Surface water drainage

Contaminated drainage from the concrete apron around the digester and digestate store will be collected in a tank and fed into the digester. The silage clamp will be SSAFO compliant. It appears that clean roof and yard water will be discharged to a surface water drain. It is assumed that no external clean surface water can enter the site. These arrangements are acceptable.'

Any water abstraction will require authorisation from SEPA under [The Water Environment \(Controlled Activities\) \(Scotland\) Regulations 2011 \(as amended\) \(CAR\)](#).

Community Council:

The CC have considered this application and all agree that if approved then any conditions applied must be clear and enforceable and reflect the methodology and safeguards outlined in the Environmental Statement and the replies of the statutory consultees. Due note has been taken of concerns expressed by residents at Ravelaw and possible adverse effects on Residential Amenity. These concerns are clearly articulated in individual comments submitted by those residents. Some community council members commented that the scale of this development seems quite large. Other members are in favour of the principles of Anaerobic Digesters and the overall environmental advantages presented and therefore do not object to this proposal, conditional upon the safeguards mentioned above.

Other Consultees

None

DEVELOPMENT PLAN POLICIES:

Consolidated Scottish Borders Local Plan 2011

G1: Quality Standards for New Development

H2: Protection of Residential Amenity

Inf7: Waste Management Facilities

D1: Business, Tourism and leisure Development in the Countryside

D4: Renewable Energy Development

OTHER PLANNING CONSIDERATIONS:

Scottish Planning Policy 2014

Supplementary Planning Guidance: Renewable Energy June 2007

KEY PLANNING ISSUES:

- Whether the proposal would harm the environment, visual amenities of the area or residential amenities of occupiers of nearby residential properties.
- Whether the proposal would affect water supplies to neighbouring properties.
- Access and the impact of the proposal on the local road network

ASSESSMENT OF APPLICATION:

Planning Policy

Scottish Planning Policy supports the principle of renewable energy and, in specific relation to anaerobic digestion, encourages Councils to enable “investment opportunities in a range of technologies and industries to maximise the value of secondary resources and waste to the economy, including composting facilities, transfer stations, materials recycling facilities, anaerobic digestion...”

Policy D4 of the Scottish Borders Consolidated Local Plan Adopted 2011 states that the Council will support large and community scale renewable energy development where it can be accommodated without unacceptable impacts on the environment. The siting and design of all renewable energy developments should take account of the social, economic and environmental context. Renewable energy developments will be approved provided that there are no unacceptable adverse impacts on the natural heritage, water environment, landscape, biodiversity, built environment, archaeology, recreation or tourism or that any adverse impacts can be satisfactorily mitigated. Waste to energy schemes involving farm waste will be assessed against policy Inf7: waste management facilities. This policy states that applications for waste management facilities including waste to energy schemes will be assessed against the principle of the development in terms of its location and the details of the application. In principle, the Council will support proposals for sustainable waste management facilities provided that certain criteria are met.

Policy D1 of the Local Plan states that business development in the countryside will be approved and rural diversification initiatives will be encouraged provided certain criteria are met; these will be addressed within this report.

Policy D1 requires that the development must respect the amenity and character of the surrounding area. The development should be appropriate to the rural character of the area and require a particular rural location and cannot be reasonably accommodated within the development boundary of a settlement. Policy G1 requires all development to be of high quality in accordance with sustainability principles, designed to fit in with Borders townscapes and to integrate with its landscape surroundings. Policy Inf7 requires that the impact of the proposal on the environment, biodiversity, the landscape and archaeology are considered, minimised and managed.

The Council's Supplementary Planning Guidance: Renewable Energy June 2007 states that combined heat and power (CHP) systems are not strictly speaking a form of renewable energy as they generally run on gas or diesel fuel. However, where the fuel source is renewable such as wood chip or anaerobic digestion, then it is considered to be a form of renewable energy. The main advantage of a CHP system

is that it is a more efficient way to generate heat and power. The cost-effectiveness of CHP schemes comes from the reuse of heat generated in the production of electricity.

Siting, Design and Visual Impact

Concerns have been raised by the community in relation to the nature and scale of the proposed development to include concerns over visual impact, landscape impact, and the size of the structures in relation to the existing complex and proximity to residential properties. However, these concerns must be considered in the context of existing site circumstances, acknowledging the farm operations that already exist and also that this is a relatively small scale proposal which is directly connected to those farm operations.

Given the nature of the development, the source of the feedstock (the material used to operate the digester), it is reasonable that the proposal requires a rural location adjacent to a farm steading. The development would be well related to the existing farm buildings at the steading, sited in the adjacent fields with the tanks and gas holder situated to the north and storage building positioned east of the existing store.

Consideration has been given to scale, mass and form, as well as design, materials and finishes. The buildings and plant to be installed would be of a size appropriate to agricultural uses. The layout relates well to the existing farm complex ensuring that the buildings are a logical extension of the steading. The proposal involves the partial underground installation of the digester plant to reduce visual impact. The store building is of a similar scale and height to the existing agricultural buildings. The buildings would be coloured green to ensure that their appearance would blend in with the rural environment.

Consideration has been given to topography and natural screening and landscaping capabilities. In long views into the site (1km) the farm is visible at a distance from properties to the north and north east, and from Whitsome Village to the south (1km). There is limited visibility from residential properties on the south side of the steading, largely as a result of the intervening farm buildings: The existing sheds provide an element of screening from these properties and additional landscape planting is proposed, south of the storage sheds, which will provide additional screening from this viewpoint, thus reducing the visual impact of the proposal. It is considered that the proposal would not be unduly prominent in the landscape and would not harm the visual amenities of the area or views into or out of the area.

The Landscape Architect has been consulted on the application and has raised no objections to the proposals subject to a condition in respect of proposed landscape planting. The Officer is content that the proposed buildings are well screened by existing buildings and well distant from potential sensitive residential receptors.

It is considered that the proposal would not be unduly prominent in the landscape and would not harm the visual amenities of the area or views into or out of the area.

Residential Amenities

Concerns have been raised by residents with regard to the potential impact on their amenity from noise nuisance, odours, vermin and flies. Residents consider the development to be oppressive in nature given the proximity to residential houses.

Policy D1 of the Local Plan requires that development has no significant adverse impact on nearby uses, particularly housing. Policy H2 states that development that is judged to have an adverse impact on the amenity of residential areas will not be permitted. Policy Inf7 states that it must be satisfactorily demonstrated that the impacts of the proposal are within acceptable levels and can be properly managed including the impact on local communities in terms of noise, odours and traffic generation.

Consideration has been given to the potential impact of the development on residential amenities to include noise disturbance, odours, loss of outlook or light. Again, this has to be considered in the context of an existing farm steading, and the buildings and operations that already exist there.

The proposed gas holder, anaerobic digester and digestate store would be sited furthest away from the existing houses to the south, beyond the existing storage and livestock buildings, with the nearest element being the proposed straw store.

Outlook and access to light

The nearest residential properties are the Farm Bungalow (40m west) and the traditional farm cottages and new build properties, approximately 100m or so to the south. The development will be partially screened from the bungalow by mature trees but whilst the occupant (who is a partner in the farm) will look out onto the proposed plant, the nearest elements of the proposals are mainly buried underground. The development would be mainly screened from residential properties to the south by the existing agricultural buildings. The proposal would therefore not affect the light or outlook of the occupants of these properties.

Noise and odour

The proposed Combined Heat and Power (CHP) generator equipment has been considered in relation a potential to generate noise nuisance. The Combined Heat & Power (CHP) plant (which generates power from burning the gases produced by the Digester) would be a 250ekW 60Hz CENERGY Agenitor Series, supplied and installed in a sound attenuated container. The applicant advises that noise levels are to be monitored as part of the system management documentation.

Environmental Health has reviewed the details submitted by the applicant.

The CHP generator will produce a noise level of 65db(A) at 1 metre from the exhaust. Given the drop off in distance to the nearest noise sensitive dwellings, and the barrier effect of the farm buildings between the proposed generator location and nearest receptors, the Officer considers that there should be no adverse noise impact, assuming regular plant maintenance is carried out.

Given the officer's assessment of low risk with respect to noise nuisance, and the use of a condition to control noise and it is considered that noise disturbance would not be an issue significant enough to warrant refusal of the application.

The applicant's supporting statement advises that the resulting digestate from the anaerobic digestion process would be less odorous than raw slurry as the more odorous compounds in the slurry are broken down during the process within a contained unit. It concludes that negative impacts due to odours associated with animal slurries will therefore be reduced by the proposal. An odour management plan has been submitted as part of the application and reviewed by Environmental Health.

Slurry would be used from the existing livestock already present from the farm, with the applicant confirming that no further slurry would be imported. Any odour arising would therefore be no greater than at present but, as noted by Environmental Health, it is possible that, because clearance and collection would take place more frequently, it is possible that odour nuisance may actually reduce, as manure would not build up at the site.

Digestate (relatively benign and odour free) will be spread as fertiliser on arable land by a tanker designed for this operation from March to September.

Environmental Health has advised that the plant be operated in accordance with the Environmental Statement dated of July 2014 received by the department in August, and all plant must be rigorously maintained in accordance with manufacturers instructions. The applicant's submitted odour management plan must be adhered to at all times to ensure there are no unacceptable impacts upon residential amenity. Given the mitigation proposed and the Officers assessment of low risk with respect to odour nuisance it is considered that odour would not be an issue significant enough to warrant refusal of the application.

It should be noted that should permission be granted, the applicant would need to apply to SEPA for an exemption under the Waste Management Licensing (Scotland) Regulations 2011. Although the activity may be exempt from waste management licensing, it is still subject to statutory controls to prevent pollution or harm to human health and would be subject to a condition that nuisance will not be caused through noise or odours.

Buffer zone

The community have raised the issue of the plant being sited a minimum distance of 250m from sensitive properties. Scottish Planning Policy suggests, *as a guide*, a 250m buffer may be appropriate for operations such as outdoor composting, anaerobic digestion, mixed waste processing, thermal treatment or landfill gas plant. It does not explain, however, how that distance has been derived or whether it applies to all scales of development, or merely those of commercial scale. Investigation of the matter has failed to produce any conclusive justification for the stated distance. It is not, however, an embargo on development within this distance. The view has therefore been taken that, within this distance, more robust examination of a proposal is required to ensure that such proposals do not give rise to unacceptable risks or impacts to these particular sensitive receptors: It would not be reasonable to refuse permission simply because the proposal falls within 250m, without being able to identify any demonstrable and unacceptable harm in planning terms. Environmental Health has reviewed the details provided by the applicant to include the Environmental Statement, The Evergreen Gas Ltd documentation and the report from SEPA, and advises that a buffer distance of 250 metres is not considered necessary to mitigate against potential air quality and odour issues.

The Environmental Health Officer recommends that an assessment of the impact of the development on local air quality shall be required, prior to development. The assessment should quantify the levels of pollutants likely to arise from the development with reference to Scottish Air Quality Objectives. Thereafter, the development should take place in accordance with the recommendations and findings of the report.

Traffic and Access

Nearby residents have raised road safety concerns with regard to access to the site and an increase in traffic movement on the narrow single road. Policy D1 requires that accessibility is taken into account in assessment of the proposals.

The development would utilise the existing access to the farm from the public road. The supporting statement advises that all feedstocks would be sourced from the farm and the digestate will be spread back to the farm land. The agent advises that the proposed feed stock is based on the current slurry production on the farm and it is proposed to supply all feedstock from within the farm. Based on this information the Roads Planning Service has no objections to the proposed development. It is recommended that it should be a condition of any planning permission for this development that no feedstocks are to be imported into the farm as this would have implications for the local road network that would have to be assessed.

Given the absence of any adverse comments from Roads Planning it is considered that road safety would not be an issue significant enough to warrant refusal of the application.

Storage of hazardous substances

General Issues

Concerns have been raised by the community in respect of safety to residential properties in the event of operational failure of the plant.

Policy G3 of the Scottish Borders Consolidated Local Plan Adopted 2011 states that proposals for hazardous developments as defined under the relevant legislation will be subject to strict controls on siting to maintain appropriate separation from residential areas and areas frequented by the public, major transport routes, and areas of national heritage importance.

Developments will be refused, if guided by the advice of the Health and Safety Executive (HSE) and other consultees as appropriate:

1. the proposal would cause unacceptable levels of pollution or public nuisance or result in an unacceptable hazard to the public, or the environment, or
2. the proposal is located in close proximity to existing facilities or infrastructure that would result in the development causing unacceptable levels of pollution or nuisance or result in an unacceptable hazard to the public or the environment.

Health and Safety

The applicant has provided documentation that states that *the operation of the AD plant is fully automated via control systems located within the on-site Process Building located as shown on the Layout Plan 5219 / 100. The installed AD plant and controls are specifically designed and tailored by the manufacturer to the requirements of each AD installation relative to the feedstocks to be used in running the AD. Full training is provided relating to the operation of the plant along with an on-going service provided throughout its working life to ensure safe and efficient operation.*

In the event of a situation where the gas generated cannot be provided to the CHP there is a requirement to "flare off" the gas. With the Evergreen Gas system there is

no flame “flare off”. As an alternative this is managed by the presence of a biogas hot water boiler which is specified to take up to 100% of the delivered biogas. This biogas is the fuel for the boiler to generate hot water which is circulated through a fan cooled radiator system thus providing the “heat dump” until the CHP is brought back on-line.

The Planning (Hazardous Substances) (Scotland) Act 1997 states that a planning authority is a Hazardous Substances Authority when quantities of hazardous substances are held. The Act states in Section 3 that Ministers shall designate what substances are Hazardous Substances and in what Quantities they may be held. Biogas which is 55 - 65 % methane is a hazardous substance. The controlled quantity is 10 tonnes, meaning that Hazardous Substance Consent would be required where that threshold is exceeded.

The agent has stated that his calculations indicated the tonnage was around 4 tonnes.

The HSE were consulted on the application and advised that from the information supplied by the agent the quantity appeared to be under the 10 tonnes and thus Hazardous Substance Consent would not be required, meaning that there is no further requirement for consent (or formal assessment) under this legislation.

SEPA have confirmed that statutory controls to prevent environmental pollution are in place to govern this nature of development and harm to human health would need to be assessed by them as part of their remit. Any other licences and statutory operating requirements for the plant would be required to be met, regardless of the grant of planning permission.

The Environmental Health Officer was consulted and did not raise any adverse comments in relation to the issue of safety. The applicant has confirmed that the plant will be operated in line with the manufacturers instructions. In carrying out activities related to gas production, holding, transfer and use it the applicant will have to abide by all required legal and statutory requirements.

Waste

The Environmental Statement advises that the proposed development includes all associated new concrete aprons and hardstandings required by the development along with collection and storage of silage effluent and surface run-off with the contents of both storage facilities being used as Feedstock for the Anaerobic Digester. Underground tanks are designed to provide a minimum of six months storage.

SEPA has no objection to the application subject to an informative in respect of regulatory advice.

Regulatory requirements

The activity appears to be exempt from waste management licensing however, it is still subject to statutory controls to prevent environmental pollution and harm to human health. SEPA advise that the applicant contacts the Borders Operations team if any further guidance is required with respect to the waste management exemption.

Any water abstraction will require authorisation from SEPA under [The Water Environment \(Controlled Activities\) \(Scotland\) Regulations 2011 \(as amended\) \(CAR\)](#).

Water supply

Environmental Health have confirmed that Ravelaw resident's properties are supplied by a mains water supply. The proposed AD plant is a dry system not requiring significant water usage. The applicant is installing a private borehole.

Prime Agricultural Land

This is a farm scale development. Given the footprint proposed it is not considered that there would be a significant impact on the resource.

Biodiversity

The development site is located on arable land approximately 130m from the Leet Water which contains grayling. The council's ecologist has advised that there is the potential for impacts on protected species notably badger, particularly in regard to foraging and commuting across the site, and breeding birds. A Badger Mitigation Plan should be supplied by the developer and precautionary measures be implemented in regard to any potential impact on breeding birds. It is recommended that conditions be applied in respect of protected species.

CONCLUSION

The principle of the development is consistent with national and local aspirations for renewable energy development and reduction in waste, as well as rural diversification. Appropriate conditions will protect the environment, public health and safety.

It is considered that the proposal complies with policies G1, H2, Inf7, D1 and D4 of the Scottish Borders Consolidated Local Plan Adopted 2011. Potential environmental effects can be controlled to an acceptable level by planning conditions so that the proposal does not harm visual amenities of the area or residential amenities of occupiers of adjacent properties and contributes to the production of renewable energy.

RECOMMENDATION BY SERVICE DIRECTOR (REGULATORY SERVICES):

I recommend the application be approved subject to the following conditions and an informative:

1 The development hereby permitted shall be begun before the expiration of three years from the date of this permission.

Reason: To comply with Section 58 of the Town and Country Planning (Scotland) Act 1997, as amended by the Planning etc. (Scotland) Act 2006.

2 No development shall commence until an assessment of the impact of the development on local air quality has been submitted to and approved in writing by the Local Planning Authority and thereafter no development shall take place except in

strict accordance with the recommendations/findings of the report. The assessment should quantify the levels of pollutants likely to arise from the development with reference to Scottish Air Quality Objectives.

3 Only animal waste and crops produced on Ravelaw Farm can be used to feed the anaerobic digester plant. All feedstock to be sourced from existing farm production and no feedstocks to be imported to the farm from elsewhere unless otherwise agreed by the Planning Authority.

Reason: In the interests of road safety and to protect residential amenity.

4 The anaerobic digestion plant shall be operated in accordance with the Environmental Statement Bain Swan dated July 2014 (received August 2014) and all plant must be rigorously maintained in accordance with manufacturer's instructions. The applicant's submitted odour management plan must be adhered to at all times.

Reason: to ensure that there are no unacceptable impacts upon the amenity of the neighbouring residential properties by appropriate management and control of potential odour nuisance.

5 Any noise emitted by plant and machinery used on the premises will not exceed Noise Rating Curve NR20 between the hours of 23.00 to 07.00 and NR30 at all other times when measured within the nearest noise sensitive dwelling (windows open for ventilation). The noise emanating from any plant and machinery used on the premises should not contain any discernable tonal component. Tonality shall be determined with reference to BS 7445-2.

Reason: to protect the residential amenity of nearby properties.

6 A Badger Protection Plan is required to protect badger foraging and commuting across the site (including covering trenches and open pipes overnight/ providing a means of escape, safe storage of chemicals and oils, sensitive security lighting, timing of works, badger-proof fencing around settlement ponds). Prior to the commencement of works such a scheme will be submitted, in writing, to the Planning Authority for approval. Any works shall thereafter be carried out in accordance with the approved scheme.

7 If signs of breeding birds are found development works should be halted or the commencement of development avoided and no further works to commence during the breeding bird season (March-September) without the express written permission of the Planning Authority. A breeding bird checking survey will be required and subsequent mitigation may be required.

8 No development shall take place except in strict accordance with a scheme of soft landscaping works, which shall first have been submitted to and approved in writing by the Local Planning Authority, and shall include (as appropriate):

- i. indication of existing trees, shrubs and hedges to be removed, those to be retained and, in the case of damage, proposals for their restoration
- ii. location of new trees, shrubs, extended hedges grassed areas and ponds
- iii. schedule of plants to comprise species, plant sizes and proposed numbers/density
- iv. programme for completion and subsequent maintenance.

Reason: To enable the proper form and layout of the development and the effective assimilation of the development into its wider surroundings.

Informative

1 SEPA advise that the applicant contacts the Borders Operations team if any further guidance is required with respect to the waste management exemption. Contact SEPA on 01896 754797.

Any water abstraction will require authorisation from SEPA under [The Water Environment \(Controlled Activities\) \(Scotland\) Regulations 2011 \(as amended\) \(CAR\)](#).

Details of regulatory requirements and good practice advice for the applicant can be found on the website at www.sepa.org.uk/planning.aspx

DRAWING NUMBERS

Site Location Plan	10 July 2014
Site Layout Plan	09 September 2014
Elevations	09 September 2014

Approved by

Name	Designation	Signature
Brian Frater	Service Director (Regulatory Services)	

The original version of this report has been signed by the Service Director (Regulatory Services) and the signed copy has been retained by the Council.

Author(s)

Name	Designation
Lucy Hoad	Planning Officer

