ALKANE ENERGY CM LIMITED

PLANNING / DESIGN AND ACCESS STATEMENT
FOR AN APPLICATION TO

EXTRACT COAL MINE METHANE
AND
ERECT PLANT AND EQUIPMENT TO PROVIDE
BACK-UP ELECTRICITY GENERATION INCLUDING
ASSOCIATED TRANSFORMERS, HARDSTANDING, FENCING,
GATES AND ANCILLARY EQUIPMENT

ON LAND OFF
KID GLOVE ROAD
GOLBORNE ENTERPRISE PARK
GOLBORNE
WA3 3DR

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1. ABOUT THE APPLICANT, BACK-UP ELECTRICITY GENERATION AND POWER RESPONSE IN THE UK

1.1 About the Applicant - Alkane Energy

1.1.1 The Applicant, Alkane Energy, was formed in 1993 as a response to the need to deal with the potentially dangerous gas, methane, emitting from coal mines and turn its impact into a positive one.

1.1.2 Alkane Energy is the leading UK clean energy company specialising in the capture of methane from abandoned coal mines and converting it to electricity, for sale into the local Distribution Network. It is a local company, with its head office in Edwinstowe, Nottinghamshire and a Depot and Operational HQ at Markham Vale in Derbyshire.

1.1.3 Alkane Energy operates a number of back-up electricity generation sites within the UK.

1.1.4 Alkane Energy’s core values encompass much more than just the environment and relate to;

- Integrity – being open and transparent in all their activities;
- Social Responsibility – being mindful of the communities in which they operate;
- People – employing the best people and rewarding their success and loyalty; and
- Safety – the promotion of excellence in health and safety management.
1.2 Alkane Energy’s Operations in the UK

1.2.1 Alkane Energy operates 28 medium sized power plants, spread across the central part of the UK, with a total of 145 MW (Mega Watts) of installed electricity generation capacity.

1.2.2 A number of those Energy Parks export electricity to the grid, using coal mine methane (CMM) as a fuel, while others produce back-up power from natural gas (Power Response & STOR). STOR (Short Term Operating Reserve) is one of a number of power balancing services operated by the National Grid. Some of Alkane’s sites also operate partly on CMM and partly on natural gas.

The locations of the Energy Parks are shown on the map below.
1.3 Power Reserve Services

1.3.1 Because, in most areas, electricity cannot be ‘stored’ in useful quantities, National Grid requires a range of balancing services (including STOR, standby/back-up power generation facilities), throughout the UK, that can either generate extra electricity or consume excess electricity, in real time. These important facilities are growing to become a vital part of the UK’s power infrastructure.

1.3.2 National Grid contracts with providers such as Alkane Energy during defined times of the day, in order to have reserves available to cater for general variations in demand and generation failures. A typical generation site provider (like Alkane Energy) would, upon receipt of an electronic instruction from National Grid, be able to start back-up generation within twenty minutes, and be able to run for a few hours.

1.4 Embedded Power Generation and its Low Carbon Benefits

1.4.1 Small generation facilities of the type Alkane Energy operates also provide Embedded Distribution Power (EDP) generation. This is also known, simply, as embedded power generation.

1.4.2 EDP generation also refers to the supply of power to the local distribution network at or close to the point of use. EDP generation helps to support the network at peak times, avoiding the need for excess capacity at the large coal fired or gas power stations. Also, EDP is more efficient than conventional large scale generation, in that it uses more efficient engines, close to the source of use and avoids power loss over long transmission lines. EDP is seen as carbon efficient and an essential part of the modern Low Carbon Economy.

1.4.3 The Government announced a statement of its long term infrastructure plans in June 2013, which included measures to unlock investment in cleaner energy and new energy sources. However, this statement indicated that a key role for gas, as a fuel, is consistent with the need to decarbonise our economy. Gas is regarded as the cleanest fossil fuel used for electricity generation, with which to replace the ageing coal fired generation capacity.

1.4.4 Whilst there is a national emphasis on developing electricity generation from renewable energy, natural gas is still considered to form an important part of the UK’s energy strategy and there is strong Government support for embedded power generation development fuelled by natural gas. Natural gas is regarded as the cleanest form of fossil fuel with a ‘low’ carbon footprint compared to other fossil fuel options. Thus, the principle of this development is supported by the National Planning Policy Framework, the National Planning Practice Guidance and National Energy Policy.
1.4.5 Gas fuelled power reserve services are also seen as an important method of balancing the increasing levels of intermittent and inflexible low carbon energy currently imposed on the grid system.

1.4.6 Gas fuelled spark ignition generator engines have an efficiency of up to 38% - 41%, which compares favourably to the 27% to 35% efficiency for open cycle gas turbines.

1.4.7 Also, the power reserve facilities, like the one proposed, will not involve the long transmission line losses that are associated with transferring electricity from the large power stations, which can range from 8% to 14%.

1.5 For More Information on Alkane Energy and National Grid's Power Reserve Services

1.5.1 For more information about Alkane Energy log on to its website www.alkane.co.uk

1.5.2 For more information on National Grid’s power reserve please visit http://www2.nationalgrid.com/uk/services/balancing-services/
2. SITE SELECTION, LOCATION AND MAIN DETAILS OF THE APPLICATION

2.1 Site Selection and Location

2.1.1 The proposed site has been chosen because it lies on the edge of a small industrial estate, Golborne Enterprise Park, at the end of Kid Glove Road, and is currently un-occupied, being part of a drilling platform that was used, by the applicant, to drill a coal mine methane exploration borehole, in 2010.

2.1.2 The proposed site is close to an appropriate natural gas supply and is sufficiently far from existing and proposed housing, so as not to cause a nuisance to residents.
2.2 Rights of Way

2.2.1 The site has been designed following consultation with the landowner, taking into account the footpaths over the restored colliery tip and the access requirements of the Council’s Parks Department, for the maintenance of the amenity areas – the proposed site plan shows the provision of shared access (coloured brown on the plan) and gates which will be used for this purpose.

2.2.2 During the borehole platform construction works, one of the original footways, immediately to the north, was diverted to facilitate that development. The proposed development will not interfere with the footpath network.

2.3 Planning History of the Site

2.3.1 Notification was given, by Alkane Energy, to Wigan Council to drill an exploratory borehole, under Part 22, Class B of the Town and Country Planning (General Permitted Development) Order 1995, the Council’s agreement was given on the 9th March 2010 in a letter, reference PRE/09/04408reply.

2.3.2 Planning permission, reference A/10/74760, was granted on the 13th August 2010 to retain the borehole to extract mine gas to generate electricity, together with the establishment of site compound including containers, transformers, substation, lighting column and fencing.

2.3.3 The borehole did not find a large enough quantity of coal mine methane, to allow power to be generated for 24 hours a day 7 days a week, as originally planned. So, unfortunately, the planning permission to extract and utilise the mine gas was not activated, within the 3 year time limit.

2.3.4 On the 1st December 2015, a pre-application enquiry was made to Mr Kevin Foster, Principal Planning Officer of Wigan Council Places Directorate, regarding the proposal to carry out back-up power generation, at the site using, 2 natural gas fuelled spark ignition generator engines.

On 10th December 2015, Mr Foster responded with his non-prejudice view, as follows:

“In principle it is considered that the proposed use is acceptable. I note the site has had previous planning permission for a very similar use in 2010 and the policy basis, although changed, is not significantly different from that time to the extent permission would be refused.

As part of any application I would expect a noise report and ecology report as outlined in the planning statement. I would also expect additional landscaping around the side in order to reduce the visual impact of the apparatus on the site.”
2.4 **Current Use and Ownership**

2.4.1 The application area is currently vacant land, occupied by the borehole platform formed when Alkane Energy drilled its exploratory borehole, in 2010. The site lies on the fringe of the reclaimed Golborne Colliery tip, which is public amenity space.

Existing site - photograph taken in October 2014

The exploratory borehole drilled in 2010

Stone platform

2.4.2 The application area is owned by Wigan Council. Alkane Energy is in separate discussions with the Council, as Landowner, with a view to leasing the site.

2.5 **The Type of Planning Application**

2.5.1 The planning application would be for sui-gen eris change of use to coal mine methane extraction and back-up/standby electricity generation.

2.5.2 Since the pre-application enquiry was made, in December 2015, Alkane Energy has decided that there is sufficient methane held within the mine to run a single generator, but only on a part time basis. Therefore, the proposed site layout has been revised to include a single CMM fuelled generator, in addition to the 2 generators, which would be fuelled by natural gas. All 3 engines would be used to provide standby or back-up power generation.
3 DESIGN OF THE PROPOSED FACILITY

3.1 Amount

3.1.1 The application area is some 0.159 Ha (0.394 acres) or thereabouts, including the right of way.

3.1.2 The maximum projected output of electricity which would be exported from the site, at any one time, is to be up to 6 MW (Mega Watts).

3.2 Access, Highways and Transport

3.2.1 Access to and from the proposed development will be via Kid Glove Road, which serves the industrial estate and is understood to be an adopted highway.

3.2.2 During the 6 – 8 week site construction phase, the number of vehicle movements is expected to be as follows:

Vans or cars 1 - 8 per day. i.e. 2 to 16 vehicle movements per day;

Lorries delivering construction materials, including hardcore and concrete 0 - 3 lorries per day, i.e. 0 - 6 vehicle movements per day.

3.2.3 During the 6 – 8 week installation and commissioning period, the number of vehicle movements is expected to be as follows:

Vans or cars 1 - 10 per day. i.e. 2 to 20 vehicle movements per day;

Low loaders and cranes delivering and placing generator containers and other plant 1 - 2 per day over a 2 to 3 day period i.e. 2 to 4 abnormal load movements per day, over a 2 to 3 day period;

Abnormal load movements would also follow agreed traffic routes to and from the main road network which runs close to High Street and Kid Glove Road and would only be undertaken with the prior notification of the highway authority and, if necessary, the police.

3.2.5 Except for the construction, installation and commissioning phases of the development, the site will generally be unattended. The plant and equipment will be operated and controlled remotely, from Alkane Energy’s depot and control room, at Markham Vale, Near Chesterfield, in Derbyshire.

Therefore, vehicle movements during the operational phase are expected to be minimal, 2 – 6 per week, i.e. a visit by one or two maintenance people by car or light van, 1 to 3 three times a week.
When major plant service or repairs are being undertaken, the number of people on site may exceed the above figures for short periods. One or two HGV vehicles and a crane may also be required, on site, at that time.

3.2.6 There will be sufficient manoeuvring room inside the site compound to allow the maintenance engineers vans to enter and leave in forward gear.

3.2.7 Under normal circumstances, members of the public will not be permitted to access any part of the generation facility. In exceptional circumstances, members of the public or other visitors may be invited to the site. In such circumstances, they will be accompanied by an employee of Alkane Energy or another authorised person.

3.2.8 A self-contained amenity container and portable toilet will be provided on the site.

3.3 The Proposed Generating Facility

3.3.1 The proposal is for power to be generated at the site, using both Coal Mine Methane (CMM) and natural gas, as a fuel. The CMM would be extracted from the existing borehole, on the site, whilst the natural gas would be imported from the local natural gas supply network.
3.3.2  The proposed embedded back-up electricity generation facility would principally consist of:
- 3 pre-fabricated containers each housing a spark ignition gas fuelled generator engine;
- together with an amenity cabin, transformers, fencing and other ancillary plant and equipment.

3.3.3  The proposed facility would be designed so that it can respond automatically and rapidly so that it can provide back-up electricity on instructions from National Grid.

3.3.4  The proposed facility will operate only when called upon by the Grid. For the most part the facility will not be in use but the engines would be maintained ‘warm’ ready to be used when required.

3.3.5  The CMM generator unit is about 12.20m long by 3.20m wide and 3.50m high (excluding the exhaust and ancillary equipment). The cooling fans and radiators, situated on top of the generator unit, will be about 4.93m long x 2.89m wide x 2.92m high.

The natural gas fuelled generator units are about 12.00m long by 3.20m wide and 3.50m high (excluding the exhaust and ancillary equipment). The cooling fans for the natural gas fuelled generator units, situated at low level, will be about 9.0m long x 2.18m wide x 1.70m high.

Drawings showing the indicative arrangement of the proposed generators are reproduced, below.

CMM Generator Unit and Cooling Fans
3.3.6 The containers will be painted olive green (to BS 12 C 39), or any other colour which may be required by the LPA.

3.3.7 The proposed gas pipework will be coloured yellow as is standard practice for safety reasons.

3.3.8 The transformers and cooling fans and radiators will be painted grey.

3.3.9 The development has been constrained so it will not affect the existing drainage ditch which runs, in an east to west direction, along the toe of the former colliery tip – which has now been restored to a public amenity area.
3.3.10 The plant containers, equipment and transformers will be mounted on lightly reinforced concrete slabs and strips, set into the existing hard-standing. A small amount of groundworks are required to prepare the site and to form those foundations and to excavate the pipe and cable trenches.

3.3.11 The finished level of the proposed development will only be some 150-200mm higher than the level of the existing hardcore which forms the borehole platform.

3.3.12 The completed site will be finished with a layer of clean natural locally quarried stone chippings, some 75mm thick, providing a porous surface, which will be free-draining.

3.3.13 A new electrical connection of at least 11kV will be required to connect the proposed Energy Park to the District Network Operator’s Electricity grid. An indicative route for this connection can be found, dashed purple, on the proposed site plan.

3.3.14 A natural gas connection to the site will be needed. An indicative route for this connection can be found, dashed green, on the proposed site plan.

3.4 Site Security

3.4.1 24 hour CCTV monitoring of the site will be provided 7 days a week. An infra-red security alarm system, covering the whole of the site perimeter, will be installed inside the security fence. During the operational phase of the development there will generally be nobody working on the site and the gates to the site will be locked, and the security system will be armed.

3.4.2 From time to time, engineers will visit the site to carry out periodic maintenance. Occasionally official visitors will be given accompanied access to the site. The generation facility will not be open to members of the public.

3.4.3 People visiting the site or carrying out maintenance will arrive by motor car or light van. Those people will have to notify the Control Centre at Markham Vale, Chesterfield, Derbyshire before entering the site.

3.4.4 All sensitive plant will be securely locked inside the containers and cables will be buried. No equipment that is readily portable or of value will be on display, so there is little reason for anyone to wish to enter the site.

3.4.5 The security and CCTV systems will be linked to Alkane Energy’s Central Control Centre. The site security is proven technology which is employed at the applicant’s other sites. The above systems, together with the security fencing, will deter entry into the site by young persons and vandals.
3.4.6 In the unlikely event of a security breach on the site the CCTV system and infra-red alarms will be activated and personnel will be dispatched to deal with the incident and the appropriate services can be notified from the Central Control Centre. An audible warning will be issued though the site’s P.A. system.

3.4.7 If the site were to be breached, despite the security measures employed, and if the generating plant or ancillary apparatus were affected, there are numerous safety devices which would shut down all the plant to ensure complete site safety. The plant can also be shut down and be re-started from the Central Control Centre and Depot in Markham Vale, Chesterfield and by the maintenance engineers, via their laptops and Smart Phones.

3.5 Site Lighting

3.5.1 The lighting design will comply with the requirements of Table 2 of the 'Guidance Notes for the Reduction of Intrusive Light GN01:2011' published by the Institution of Lighting Professionals. Light fittings will be selected and located to minimize external light impact, whilst providing a safe and secure environment for persons working on the site.

3.5.2 A small lighting column, up to 5.5m high, (with one outward facing and one inward facing lamp) is to be positioned near the access gates. This lighting is required for safety and security reasons. The lamps will normally be turned off but they will be fitted with a PIR control device, so that if anyone approaches the gates, in the hours of darkness, the lamps will come on. The PIR device will be set to avoid the lamps being activated by small animals.

3.5.3 The lamps at the gate will be 250 watt high pressure sodium (SON-T) downward facing floodlights.

3.5.4 A number of 250 watt high pressure sodium (SON-T) downward and inward facing floodlights will also be mounted on selected containers.
3.5.5 When no-one is working on the site, the lighting will normally be turned off. PIR or movement sensors with time delay switches will be fitted so the lights will come on at night, only when needed. The lights will also come on if the security system is activated.

3.5.6 However, maintenance will, for the most part, be programmed in to take place during the normal working day, to avoid the need to attend the site at night.

3.5.7 So, to summarise, normally, during the hours of darkness, the lamps will be off, except when essential maintenance is being carried out on site or when the alarm system has detected an intrusion. In the interest of safety, the site has to be lit whilst people are working there.

3.5.8 If required, a suitable lighting scheme can be agreed with the Planning Authority.

3.6 Site Safety and Amenity

3.6.1 Should planning permission be granted, Alkane Energy will operate this site to the same high standards to which it has adhered since building and operating its first ‘gas to power plant’ in the late 1990s.

3.6.2 Alkane has prepared and maintains an Emergency Procedures Manual, which covers the company’s responsibilities and procedures for dealing with incidents that could occur, e.g. from a gas leak to a spillage. However, this is not to imply that the proposed natural gas fuelled generation operation will not be safe. It will be, provided that the appropriate risks are considered and addressed and that the above procedures are implemented, should an incident occur.

3.6.3 Alkane Energy is proud of the excellent safety record at its Energy Parks and is confident that the proposed operations will have an equally impressive track record.

3.6.4 Generally, no-one will be working at the facility. It will run automatically, when required. Maintenance Personnel will, however, visit the site, from time to time. The designated maintenance personnel can monitor each generator remotely using their laptops and even their smart phones. The same situation exists at other Alkane Energy Parks, which operate in a safe and efficient manner.

3.6.5 A self-contained amenity container and portable toilet will be provided on the site. The amenity container and toilet will be regularly maintained with any effluent being taken away, to an approved disposal point by a licensed operator. This system has been proved to work well at the other Alkane Energy Parks.
3.7 Landscaping, Fencing and Boundary Treatments

3.7.1 Security fencing will be provided to the site perimeter. The fencing will comprise of welded wire mesh 2.4m high panels (Dulok Double Wire Panel fencing system or similar).

3.7.2 The main gates will be formed from rectangular hollow section steel framework with a welded wire mesh screen.

3.7.3 All security fencing and gates will be painted dark green or any other colour agreed with the Planning Authority.

3.7.4 The low rise containerised nature of the development will, together with the proposed material colours (dark green for the containers and grey for the transformers) give a low level of visual impact.

3.7.5 The proposed development will not look out of place when situated close to the existing industrial buildings that make up the Golborne Enterprise Park.

3.7.6 As recommended by Mr Foster in his pre-application consultation, the site design incorporates some planting around the site, to reduce the visual impact of the generation facility. Below is an extract of drawing 08-2126-204 Indicative Landscape scheme.
3.8 Anticipated Hours of Operation

3.8.1 The proposed facility, would usually only be called upon a relatively small number of hours per year. The applicant anticipates that, in normal circumstances, the proposed facility would not operate for more than 1,000 hours per year.

3.8.2 The operational hours of the generators will be dictated by the demands of the Grid. Other than in extreme power demand conditions, which are very rare, the operational hours are expected to be between 07:30 and 20:30 hours, any day of the year.

3.8.3 However, the facility could be called upon to operate between 07:00 and 22:00 daily, during periods of peak demand. In such cases, the anticipated hours of operation are:
   Morning Operation: between 07:00hrs and 14:00hrs; and,
   Evening Operation: between 16:30hrs and 22:00hrs.

3.8.4 However, under a standing reserve contract, the site may need to run outside the above hours if the Grid instructs the site to operate, in the event of very rare extreme power demand conditions, say once in every 10 years.

3.8.5 When they are not producing power, the generator engines will be maintained ‘warm’ using electric heaters and/or batteries and so will be ‘ready to go’ when needed. However, this process will not generate any significant noise emissions.
4. EMISSIONS

4.1 Noise

4.1.1 The Applicant has appointed Acoustic Associates, Leicestershire to carry out a background noise survey and model the predicted noise emissions from the proposed facility. The report may be found in Appendix C, of this statement.

4.1.2 Extracts from the report by Acoustic Associates are as follows.

It is proposed to install up to 3 generators, 2 running off mains gas and one running off mine gas. The site is an industrial site with the nearest houses over 100m away. The nearest noise sensitive receptors are houses to the west and southwest on Beech Road, Willow Grove and surrounding houses and also houses to the east with an Inter City Railway between these properties and the site. For many of these houses there are industrial buildings screening the site from the receptors. Background noise levels were monitored in the vicinity of the nearest houses. Noise from the generators has been estimated and the impact assessed.

The type of facility proposed would usually only be called upon a relatively small number of hours per year. The applicant anticipates that the proposed facility (all 3 generators) will follow the STOR regime i.e. up to 1000 Operational hours per year. The generator units are unlikely to run outside 07:30 to 20:30 hours, but the facility could operate between 07:00 and 22:00 daily, during periods of peak demand Morning Operation: between 07:00 and 14:00 approx.; and, Evening Operation: between 16:30 and 22:00 approx.

In addition, as part of the Capacity Mechanism contract the Grid may require the engines to run for 24 hours a day, in an emergency power shortage situation, say 1 in every 10 years but as this is so rare this assessment primarily considers normal operational hours.

The period of most interest is in the evening when daytime background levels are likely to be lowest and the units are most likely to operate (up to 20:30). Even though the generator units are unlikely to run outside of 07:30 to 20:30 hours, this noise assessment has used a conservative normal operating range up to 22:00 hours, but also discusses the impact of unlikely but possible overnight running, of the plant.

When they are not producing power, the generator engines will be maintained ‘warm’ using electric heaters and/or batteries and so will be ‘ready to go’ when needed. However, this process will not generate any significant noise emissions.

The site is on the edge of an industrial site and plant is only expected to run during the daytime except in extreme circumstances so in this context the impact is considered to be low.
In the rare / unlikely case of the generators running at night plant levels would be up to $39_{\text{L}_{\text{Aeq}}}$ so with internal noise levels with windows open being 15dBA less than external noise levels, internal noise would be $24_{\text{L}_{\text{Aeq}}}$ and so not likely to disturb sleep, being well below the criteria for night time noise given in BS8233. In the context of it being an unlikely event which would only happen in an extreme power demand which is extremely rare, in this context the impact is considered to remain low.

The uncertainty in the calculations is considered to be not significant to the assessment as worst case conditions have been considered and the assessment level is well below 5 dB.

4.1.3 A copy of the noise modelling output is reproduced, below.

Appendix 4. Noise contours

![Noise contours](image-url)
4.1.4 The noise assessment concludes that:
Background noise levels were considered to be $43_{LA90}, 1\text{hr}$ in the daytime;
Noise at the nearest dwellings from all 3 generators was calculated to be $39_{LAeq}$ or less;
Assessed to BS4142 the impact was low and below the LOAEL; and,
Planning permission should not be refused on noise grounds.

4.2 Dust and Airborne Emissions

4.2.1 Apart from a small amount of dust which must be expected during the construction period there will be no significant dust produced during the life of the plant.

4.2.2 The proposal is to use spark ignition internal combustion gas engines, on the site, to each drive an alternator, which will generate electricity.

4.2.3 Emissions from such gas engines will be virtually colourless and include limited quantities of gaseous nitrogen and carbon dioxide. Emissions of nitrogen and sulphurous oxides are significantly less than those from comparable fossil fuel generating stations. Flue gas is discharged from the plant via a chimney. Under certain conditions (particularly in cold weather) a steam plume may emanate from the chimney. This is non-polluting, the only consideration being the visual effect.

4.2.4 The spark ignition generator engines that are proposed for this site will generate electricity from natural gas.

The engines are designed to run within the following emission limits:

Nitrous oxides ($NO_x$) < 500 mg/m³;  
Carbon monoxide (CO) < 1400 mg/m³.

Nitrogen dioxide ($NO_2$) is the most relevant of the $NO_x$ compounds in this case.

4.3 Vibration

4.3.1 The generating engine will employ state of the art counterbalanced cranks and incorporate anti-vibration mountings and springs to prevent low frequency vibration being transmitted into the ground. As with noise, the technology to minimise vibration is well proven throughout the UK.

4.3.2 Alkane Energy will strive to ensure that the plant is designed and operated to eliminate vibration nuisance at neighbouring properties.
5. OTHER ENVIRONMENTAL MATTERS

5.1 Town & Country Planning Environmental Impact Assessment Regulations 2011

5.1.1 The application area is some 0.159 Ha (0.394 acres) or thereabouts, including the right of way.

5.1.2 Being a facility to generate electricity, the proposed development, falls within a description of the development listed under Schedule 2, Table 3(a) of the EIA Regulations 2011 but does not exceed the indicative threshold of 0.5 Ha in column 2. Therefore, there is no requirement for an Environmental Impact Assessment (or Environmental Statement) to be provided for this development.

5.1.3 Following a pre-application enquiry made to Mr Kevin Foster, Principal Planning Officer of Wigan Council Places Directorate, on 1st December 2015, he commented that “I have considered the Screening request and am of the opinion that the proposals do not represent EIA development.”

5.1.4 Therefore, this application is not accompanied by an Environmental Impact Assessment or Environmental Statement. This planning statement does, however, provide information on the environmental matters which have been considered, as part of the design process for this project.

5.2 Agriculture

5.2.1 No agricultural land will be affected by the proposed development.

5.3 Ecology

5.3.1 As the proposal is within 5m of a drainage ditch at the toe of the restored former colliery tip, a Preliminary Ecological Appraisal has been undertaken for the proposal by Messrs Peak Ecology Limited of Arden House, Deepdale Business Park, Bakewell, Derbyshire DE45 1GT.

5.3.2 Extracts from the Executive Summary of the report, which can be found in Appendix B, are as follows:

Designated sites
Several statutory and non-statutory sites were present within 2km of the survey site boundary, non-of which will be affected by the works. The site also fell within SSSI risk zones but was not included in any of the risk categories. No designated sites will be affected by the works.
Habitats
The site comprised an area of ephemeral/short perennial with herbaceous and grass species likely to be common in the local area. No locally or nationally important botanical species were recorded and the habitat would not qualify for inclusion under the UK Post-2010 Biodiversity Framework. The loss of this habitat was not thought to be ecologically significant.

Protected and/or Notable Species
The site was considered suboptimal for protected and/or notable species including amphibians, reptiles, birds, bats and mammals. As a matter of good practice, the following guidelines should be adhered to:

- General good practice guidelines should be adhered to with respect to the nearby ditch e.g. any potentially harmful chemicals, solutions or machinery associated with the works should not be stored within 5m of the watercourse.
- Any open trenches or pits must be covered over at night or left with a sloping end, to prevent mammals, such as hedgehogs Erinaceus europaeus, from falling in and becoming trapped. Similarly, any pipes over 200mm will need to be capped off at night to prevent mammals from using them for shelter.
- Any new lighting associated with the development should avoid illuminating the adjacent parkland as this has the potential to support bats.

5.3.3 The report concludes that no further surveys are recommended and that general good practice guidelines should be adhered to. It also states that National planning policy recommends that all developments incorporate ecological enhancement where possible, therefore consideration should be given to the installation of bird boxes and/or bat boxes onto the proposed security fencing which will border the site post-construction.

5.3.4 The recommendations of the Ecological Report have been taken on-board in the site design process and therefore we contend that the application should not be refused on ecological grounds.

5.4 Archaeology and Cultural Heritage

5.4.1 The application area includes 2 abandoned mine shafts of the former Golborne colliery. The mineshafts, themselves will be unaffected by the proposed development. The underground workings of the former mine have been accessed by a borehole, through which methane, trapped within the coal, left underground, can be extracted, so the old coal mining legacy can be turned into some beneficial use.

5.4.2 The Applicant is not aware of the presence of any site of any other archaeological interest in or adjacent to the proposed development area.
5.5 Socio Economics

5.5.1 Alkane Energy is a UK based company which has its head office in Edwinstowe, Nottinghamshire.

5.5.2 The group employs over 30 people. In addition, the Alkane Group has a policy of employing locally based consultants to advise and assist in its operations.

5.5.3 A significant number of jobs within those consultancy firms and those employed by the UK based suppliers that the Alkane Group uses are dependent upon the success of Alkane’s business for their livelihoods.

5.5.4 Alkane Energy operates a policy of purchasing hardcore, fencing and construction materials from local suppliers. Additionally, local hire companies and construction companies will be encouraged to tender for the construction and landscaping works.

5.5.5 It is accepted that employment opportunities on the completed site itself will be limited to perhaps one person involved in maintenance, due to the largely automated nature of the plant. However, it should be remembered that Alkane Energy is a local company employing people and providing work to local contractors, sub-contractors and professionals, all of whom depend on Alkane Energy. This project, along with other similar schemes Alkane Energy intends to roll out over the next few years, will help ensure that those jobs are kept secure.

5.5.6 The economy will benefit from the Rates which will be payable for the generating station and from the taxes paid by the company itself.

5.6 Prevention of Pollution of the Groundwater, Water Courses or of the Ground

5.6.1 There is an existing drainage ditch crossing the site from west to east, and is shown on the existing and proposed site layout drawings. The drainage ditch will not be affected by the works.

5.6.2 There will be no need to provide a foul sewer connection to the site. Instead, a self-contained amenity container and portable toilet are proposed. The amenity container and toilet are regularly maintained with any effluent being taken away, to an approved disposal point by a licensed operator. This system has been proven to work well at the other Alkane Energy Parks.

5.6.3 A small amount of engine coolant will be kept at the site, but this will be stored in drums within an approved, covered, bunded container designed to retain 110% of the maximum volume of stored materials.
5.6.4 Therefore, we contend that, provided the site is operated in a proper manner, the proposed development will not result in the pollution of groundwater or of the ground, itself.

5.7 Drainage and Flood Risk

5.7.1 The proposed hardcore platform will be porous and self-draining so there will be no increase in surface water run-off associated with the development.

5.7.2 A search on the Environment Agency’s website shows that the site is within Flood Zone 1. Flood Zone 1 is land assessed as having a less than 1 in 1,000 annual probability of river or sea flooding (<0.1%).

5.7.3 Therefore it is concluded that there would be no increase in flood risk arising from the proposed development and that the proposal is in accordance with the relevant parts of PPS25.
6. PLANNING POLICY AND SUSTAINABILITY

6.1 National Planning Policy Framework

The National Planning Policy Framework, published in 2012, has replaced much of the previous planning policy regime. It includes some relevant statements about sustainable development, which we and the Applicant consider are relevant to the proposed back-up electricity generation development.

At the heart of the National Planning Policy Framework is a presumption in favour of sustainable development, which should be seen as a golden thread running through both plan-making and decision-taking.

Embedded power generation is intrinsically more efficient than generating electricity at conventional large power stations. The individual generators are themselves, more efficient. Also, as the electricity produced is embedded into the local distribution network, there is much less transmission losses compared with power which is transferred long distances from the large stations by overhead power lines. Therefore, this proposal will assist in reducing carbon emissions, by producing efficient power when the Grid has a high load imposed upon it (i.e. ‘on demand’). The power is produced only when it is needed and that power is then used locally.

Whilst ever the present electrical generation regime, operated by the National Grid, continues in the UK, the requirement to provide back-up electricity generation facilities will be required.

The site is completely suitable for such a use in that:

it is adequately serviced by an existing road system, although the actual amount of traffic which will be generated by the proposal will be minimal;

a suitable electricity grid connection is available to Alkane Energy. The electricity exported from the proposed development will be via a cable connected to the proposed sub-station;

a suitable natural gas supply is available and this can easily be connected to the proposed generators.

Generating back-up electricity using containerised gas fuelled spark ignition engines has been tried and tested over a number of years by Alkane Energy, its sister company Regent Park Energy and other operators and has proved to be very successful.

Therefore we, on behalf of the Applicant, contend that the proposal is entirely sustainable.
6.2 National Policy Statement for Energy (EN-1)

**Paragraph 3.3.11 states** ‘...the more renewable energy generating capacity we have the more generation capacity we will require overall, to provide back-up at times when the availability of intermittent renewable sources is low. If fossil fuel plant remains the most cost-effective means of providing such back-up, particularly at short notice, it is possible that even when the UK’s electricity supply is almost entirely decarbonised we may still need fossil fuel power stations for short periods when renewable output is too low to meet demand...’

The proposed development would provide a reliable back-up supply of energy for when the Grid’s demand is greater than predicted. This will allow the switching between back-up supplies and renewable energy as and when required.

6.3 National Policy Statement for Electricity Networks Infrastructure (EN-5)

**Background** - The new electricity generating infrastructure that the UK needs to move to a low carbon economy while maintaining security of supply will be heavily dependent on the availability of a fit for purpose and robust electricity network. That network will need to be able to support a more complex system of supply and demand than currently and cope with generation occurring in more diverse locations.

Back-up electricity generation facilities, like the one proposed for Kid Glove Road, Golborne, are an integral part of the arrangements to ensure a robust electricity distribution network system is provided across the Country.

6.4 Extracts from Wigan Council’s Core Strategy (Adopted 2013)

6.4.1 The site is located on land used for drilling an exploratory borehole in 2010 and has been vacant since. The land is designated for Parks and Gardens in Wigan Council’s Core Strategy that was adopted in September 2013. The proposal is for an industrial use.

6.4.2 Policy CP2 – Open Space, Sport and Recreation

The proposed site lies on the edge of an industrial estate within land designated for open space ‘Golborne Park’ on the map which accompanies the Core Strategy.

However, the site is very small in relation to the whole park area and the site has had planning permission for a very similar use, granted in 2010. Therefore, even though the policy use has changed it is not significantly different from that time, such that permission for the proposed use should be refused.
7. **SUMMARY**

7.1 The Applicant, Alkane Energy, is an expert in the field of 'gas to power' electricity generation, on a commercial basis. Alkane successfully operates 28 energy parks within the UK, a number of which are fuelled by coal mine methane, with the remainder being used for back-up electricity generation, fuelled by natural gas.

7.2 The proposal is to provide back-up power generation which is an essential part of the strategy of the National Grid, to ensure a sustainable energy supply for the region and country.

7.3 Back-up electricity generation is required because electricity cannot be stored (in useful quantities). National Grid requires a range of balancing services that can either generate extra electricity or consume excess electricity, in real time. The important role these small power stations fulfil means they are a vital part of the UK's power infrastructure.

7.4 The operational hours of the generators will be dictated by the demands of the Grid, but are expected to be between 07:30 and 20:30 hours, any day of the year. However, under a standing reserve contract, the site may need to run outside these hours if the Grid instructs the site to operate, in extreme power demand conditions, which are very rare, say 1 in every 10 years.

7.5 The low rise containerised nature of the development will, together with the proposed material colours (dark green for the containers and grey for the transformers), along with the proposed planting, give a low level of visual impact. The proposed development will not look out of place when situated close to the existing industrial buildings that make up the Golborne Enterprise Park.

7.6 The nearest existing residential housing to the proposed back-up electricity installation site is situated some 100m to the west and south west. There is further residential housing some 120m to the east, with an Inter City Railway between these and the site. Immediately to the south and east of the site are industrial units forming part of the Golborne Enterprise Park.

7.7 The impact on the local transport infrastructure caused by the proposed development will be minimal.

7.8 Bearing in mind all of the above, the Applicant, Alkane Energy, and we, as its Agents, respectfully conclude that planning permission should be granted for the installation of a back-up electricity generation facility fuelled by natural gas and coal mine methane, at Kid Glove Road, Golborne.