



**MERCIA**  
POWER RESPONSE

**Planning Statement and Design and Access Statement  
in Support of the Planning Application**

**for the**

**Proposed Back-Up Power Generation Facilities Including Generator  
Containers, Blockwork Switch Rooms, Sub-Stations, Fencing, Gates  
and Ancillary Equipment**

**on Land off Graphite Way  
Hadfield  
Glossop  
Derbyshire  
SK13 1QH**

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#### **Issue record**

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### **DRAWINGS REFERRED TO IN THE APPLICATION**

Drawing No.	Title
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16-2620-202 REVISION D	EXISTING SITE PLAN
16-2620-203 REVISION I	PROPOSED SITE PLAN
16-2620-204	PROPOSED SITE ELEVATIONS

## **1. About the Applicant, Back-Up Power Generation and Power Response in the UK**

### **1.1 About the Applicant – Mercia Power Response Ltd**

- 1.1.1 The Applicant, Mercia Power Response Ltd (Mercia Power), specialises in electrical power generation and contracts with National Grid, to provide power balancing services.

### **1.2 Power Reserve Services**

- 1.2.1 As 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.
- 1.2.2 National Grid contracts with providers such as Mercia Power Response Ltd during defined times of the day, in order to have reserves available to cater for general variations in demand and generation failures.
- 1.2.3 In addition to the day to day provision of power to assist National Grid in balancing the system, National Grid also contracts with providers such as Mercia Power Response Ltd to provide a national standing reserve to ensure the country has enough back-up capacity to provide power in emergency situations. Such situations can occur when the country does not have enough conventional generating capacity to meet the demand for electricity (e.g. if a very large power plant failed).
- 1.2.4 A typical generation side provider (like Mercia Power Response Ltd) 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 couple of hours.

### **1.3 Embedded Power Generation and its Low Carbon Benefits**

- 1.3.1 Small generation facilities of the type Mercia Power Response Ltd operate, also provide Embedded Distribution Power (EDP) generation. This is also known, simply, as embedded power generation.
- 1.3.2 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.

- 1.3.3 EDP generation of the type proposed in this application is fuelled by natural gas from the underground natural gas supply pipeline network.
- 1.3.4 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 de-carbonise our economy. Gas is regarded as the cleanest fossil fuel used for power generation, with which to replace the ageing coal fired generation capacity.
- 1.3.5 Gas fuelled power response 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.
- 1.3.6 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.
- 1.3.7 Also, the power response 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%.

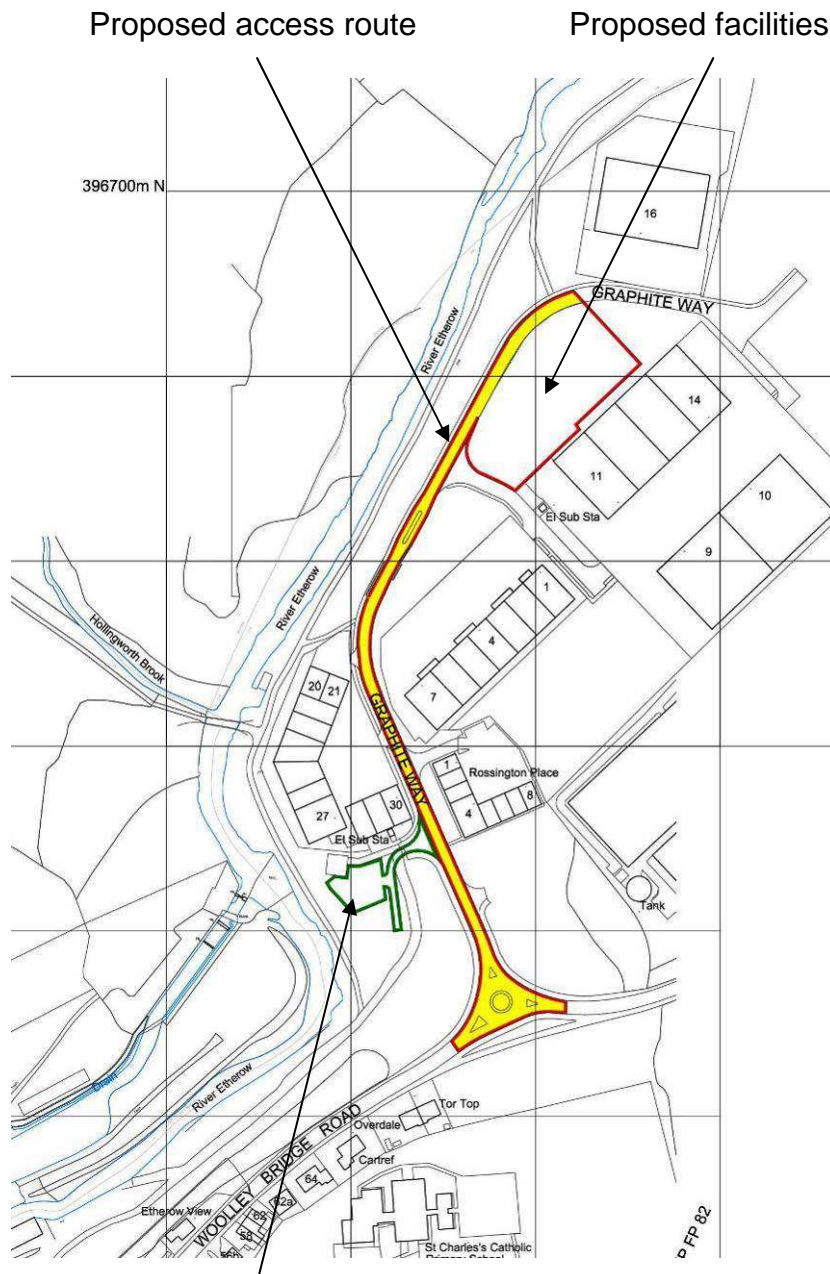
#### 1.4 For More Information on National Grid's Power Reserve Services

- 1.4.1 For more information on power reserve please visit:  
<http://www2.nationalgrid.com/uk/services/balancing-services/>

## 2. Location, Site Selection and Main Details of the Application

### 2.1 Location

- 2.1.1 The proposed 3 No. back-up power generation facilities are situated off of Graphite Way, Hadfield, to the east of the River Etherow. The proposed facilities are located adjacent to some industrial units, with units also located 83m to the north-east and 86m to the south-east of the site.



- 2.1.2 Mercia Power has previously been granted planning permission, reference HPK/2016/0470, dated 4 November 2016, for a similar facility some 235m to the south-west of the proposed site, shown edged green on the image above.

- 2.1.3 The approximate National Grid co-ordinates of the centre of the facilities are:

401 501m E  
396 852m N

## 2.2 Site Selection

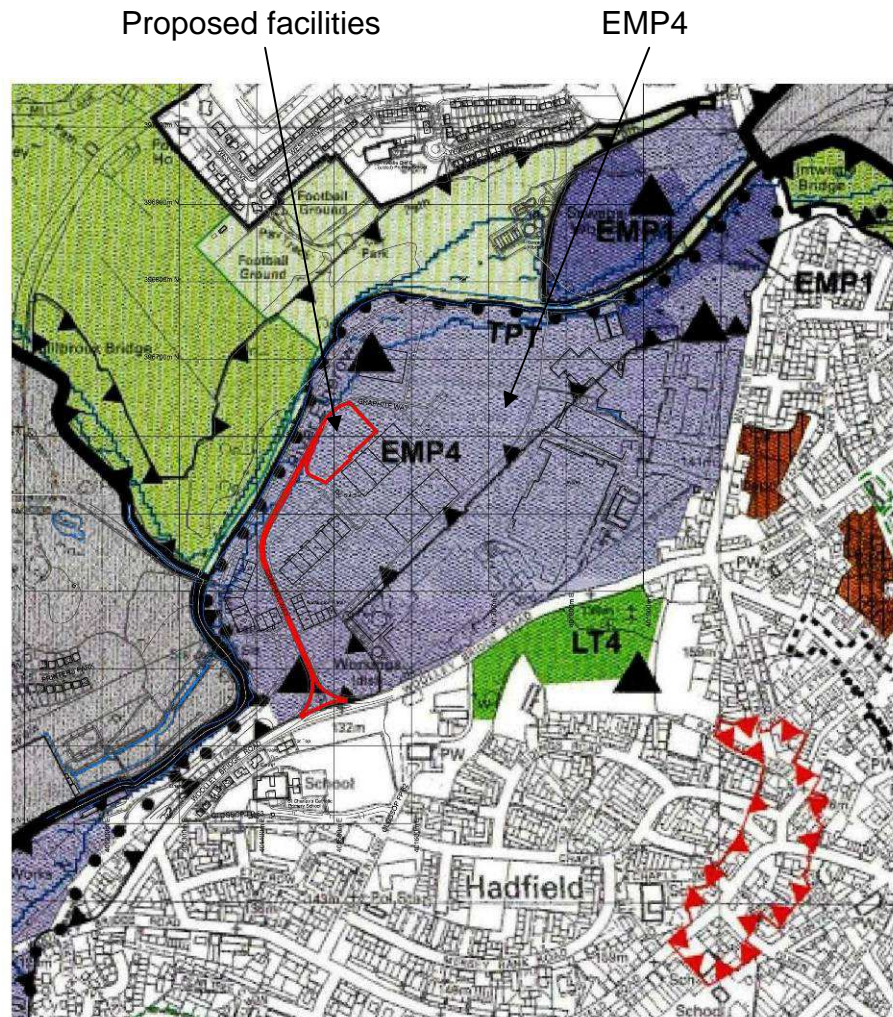
- 2.2.1 It is necessary to site this type of development close to where the power is used and where the electrical and natural gas infrastructure will support such back-up power generation facilities.
- 2.2.2 The site is currently a plot of vacant land. There are some self-set small trees and shrubs on part of the land.



- 2.2.3 The nearest residential housing to the proposed development is some 293m to the north-west of the proposed site, on West Drive in Tintwistle. There are further residential houses around the site, the closest of these are some 350m to the south on Woolley Bridge Road.



- 2.2.4 The proposed facilities are to be sited inside land designated as a Primary Employment Zone (EMP4) on High Peak Borough Council's Local Plan. While, it is accepted that the proposal will not result in any additional employment, it will help to continue to secure the employment of those employees and sub-contractors who work for Mercia Power Response Ltd.



- 2.2.5 As mentioned above, Mercia Power has previously been granted planning permission, reference HPK/2016/0470, dated 4 November 2016, for a similar facility some 235m to the south-west of the proposed site. At the time of making that application, there was no other land available to the Applicant on the Industrial Estate. Recently, however, a plot of land, which is the subject of the current application, has become available and the applicant has entered into an Option Agreement to buy that additional plot.
- 2.2.6 It is envisaged that, should planning permission for this proposal be granted, Mercia Power would not develop the original site and therefore would not activate planning permission HPK/2016/0470.

2.2.7 Bearing the above in mind, the location of these proposed facilities is preferred, to the originally approved site, because:

- the sites are less visible from the adopted highway, Woolley Bridge Road and residential properties along the highway;
- the sites are in a less prominent location;
- the sites are also located further away from the River Etherow and the adjacent track;
- the sites are further away from the nearest residential property; and,
- there is the opportunity to provide more visual screening to the chosen sites.

## 2.3 Public Rights of Way

2.3.1 There are no public rights of way in the vicinity of the proposed facilities.

2.3.2 The track that runs adjacent to the River Etherow is some 25m away from the north-western boundary of the proposed development. The proposed sites will not be visible from the track because of the presence of a steep embankment. The track will be unaffected by the proposed back-up power generation facilities.

## 2.4 The Type of Planning Application

2.4.1 The planning application is for sui-generis change of use from industrial land to back-up/standby electricity generation.

## 2.5 Size of the Proposed Development

2.5.1 The application area is some 0.94 Ha (2.32 acres) or thereabouts, including the proposed access route. The operational area of the three facilities, combined, will be some 0.40 Ha (0.99 acres) or thereabouts.

## 2.6 Anticipated Hours of Operation

- 2.6.1 These types of facilities are called upon a relatively small number of hours per year. Therefore, the proposed facilities will typically operate for up to 1000 operational hours per year.
- 2.6.2 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. However the sites may need to run outside these hours if National Grid instructs the sites to run in emergency situations to fulfil the sites' duties under a standing reserve contract. These types of emergencies are extremely rare, indeed no such event has occurred in the UK over the last ten years.
- 2.6.3 Even though the generator units are unlikely to run outside these hours; the noise assessment, submitted with this application, uses a conservative range of hours of operation from 07:00 to 22:00 hours as its normal operating hours and has also considered the impact of the emergency overnight running of the plants.

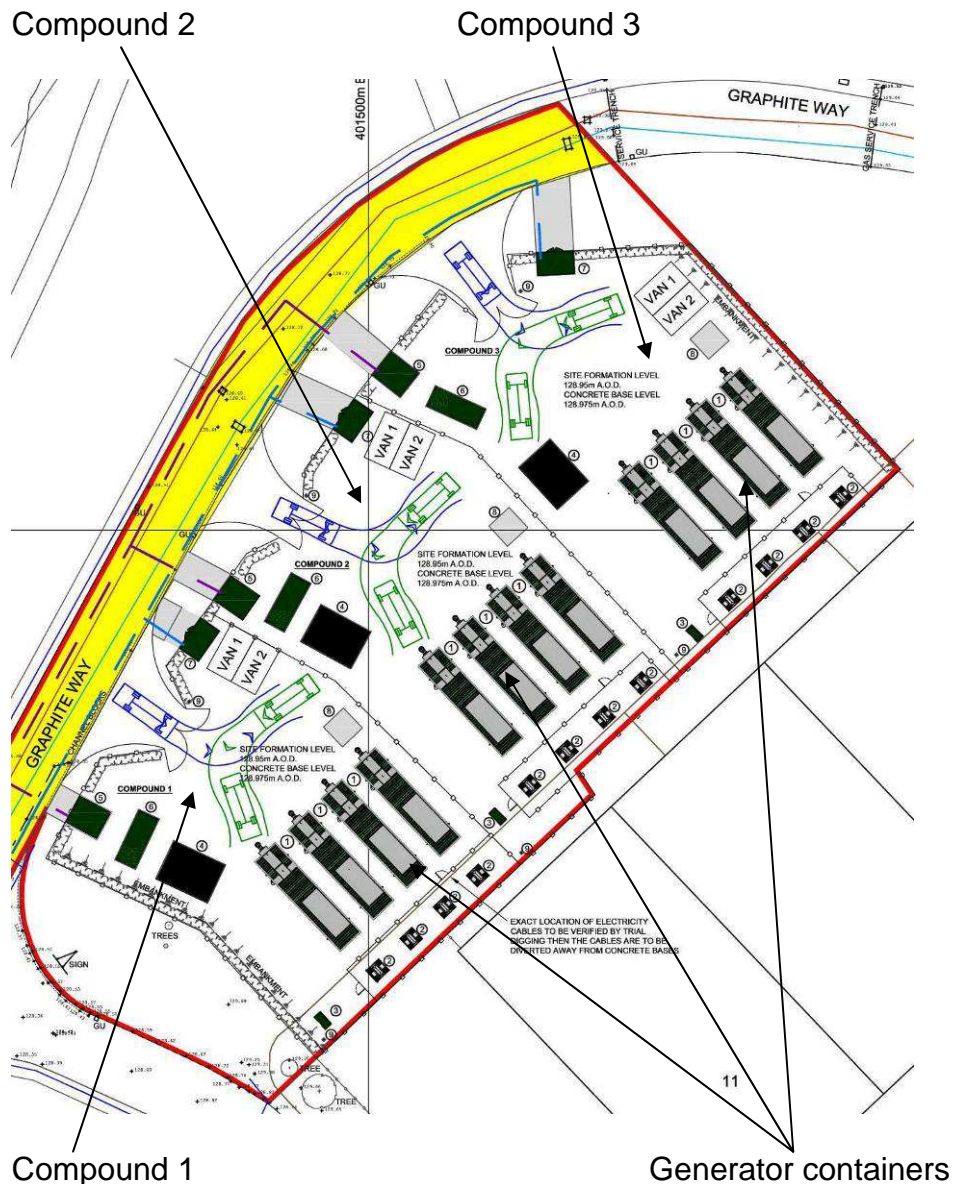
## 3. **Ownership**

- 3.1 The applicant is in negotiations to buy part of the application area (shown edged red on the location plan) from the owner, Patrick Properties (Holdings) Limited.
- 3.2 The proposed access route, coloured in yellow on the Location Plan, will mostly be along the private road, Graphite Way, which is also registered to Patrick Properties (Holdings) Limited.

#### 4. Design of and Access to the Proposed Facilities

##### 4.1 The Proposed Generating Facilities

- 4.1.1 The proposed layout of the three facilities, which are called Compound 1, Compound 2 and Compound 3, can be seen on drawing 16-2620-203, an extract of which is shown below.



- 4.1.2 It is proposed to install 12 No. 2 MW generator containers split between three separate fenced compounds, which will each house a switch room and HV sub-station. It is also proposed to install an oil storage base, gas meter cabinet and welfare cabin in each compound.
- 4.1.3 The generator containers, welfare cabins / site offices and gas meter cabinets will be painted dark olive green to BS 12C 39. The switch rooms will have a grey rendered finish. For Health and Safety reasons, any gas pipe that is above the ground will be painted yellow.



## 4.2 Access, Highways and Transport

4.2.1 The sites will be accessed via the un-adopted industrial estate road - Graphite Way. Graphite Way leads north from a roundabout off Woolley Bridge Road, which is an Adopted Highway. A new bellmouth would be formed for access into each of the compounds.

4.2.2 There will be sufficient manoeuvring room inside each of the site compounds to allow the maintenance engineers vans to enter and leave in forward gear.

The swept paths for the largest vehicle making frequent visits to the sites, i.e. a rigid bodied van up to 7.17m overall length, can be seen on the proposed site plan - drawing 16-2620-203.

Each access has been designed to accommodate visibility splays, on the assumption that the Estate Road, which is currently un-adopted, will be restricted to 30mph.

4.2.3 Under normal circumstances, members of the public will not be permitted to access any part of the generation facilities. In exceptional circumstances, members of the public or other visitors may be invited to the sites. In such circumstances, they will be accompanied by an employee of Mercia Power or another authorised person.

4.2.4 Except for the construction, installation and commissioning phases of the development, the sites will generally be unattended. 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 times a week.

4.2.5 When major plant service or repairs are being undertaken, the number of people on either of the sites may exceed the above figures for short periods. One or two HGV vehicles and a crane may also be required at that time.

4.2.6 As described in more detail in Section 4.4 of this statement, it is anticipated that some 0.9m of made ground will need to be removed from the development area before the main construction phase can commence. This will generate approximately some 7330 tonnes of material which will need to be moved.

Assuming 6 No. 20 tonne lorries are used, with a round trip to the landfill site taking 1 hour; that would generate up to 48 loads per day (up to 96 vehicle movements per day) for 7.7 days or about 8 working days.

- 4.2.7 During the 4-6 week site construction phase for each compound, 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 – 5 lorries per day, i.e. 0 – 10 vehicle movements per day.

- 4.2.8 Again, for each compound, there will be a 4 - 6 week installation and commissioning period. The number of vehicle movements for this phase 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 – 4 per day over a 2 to 3 day period, i.e. 2 to 8 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 and would only be undertaken with the prior notification of the highway authority and, if necessary, the police.

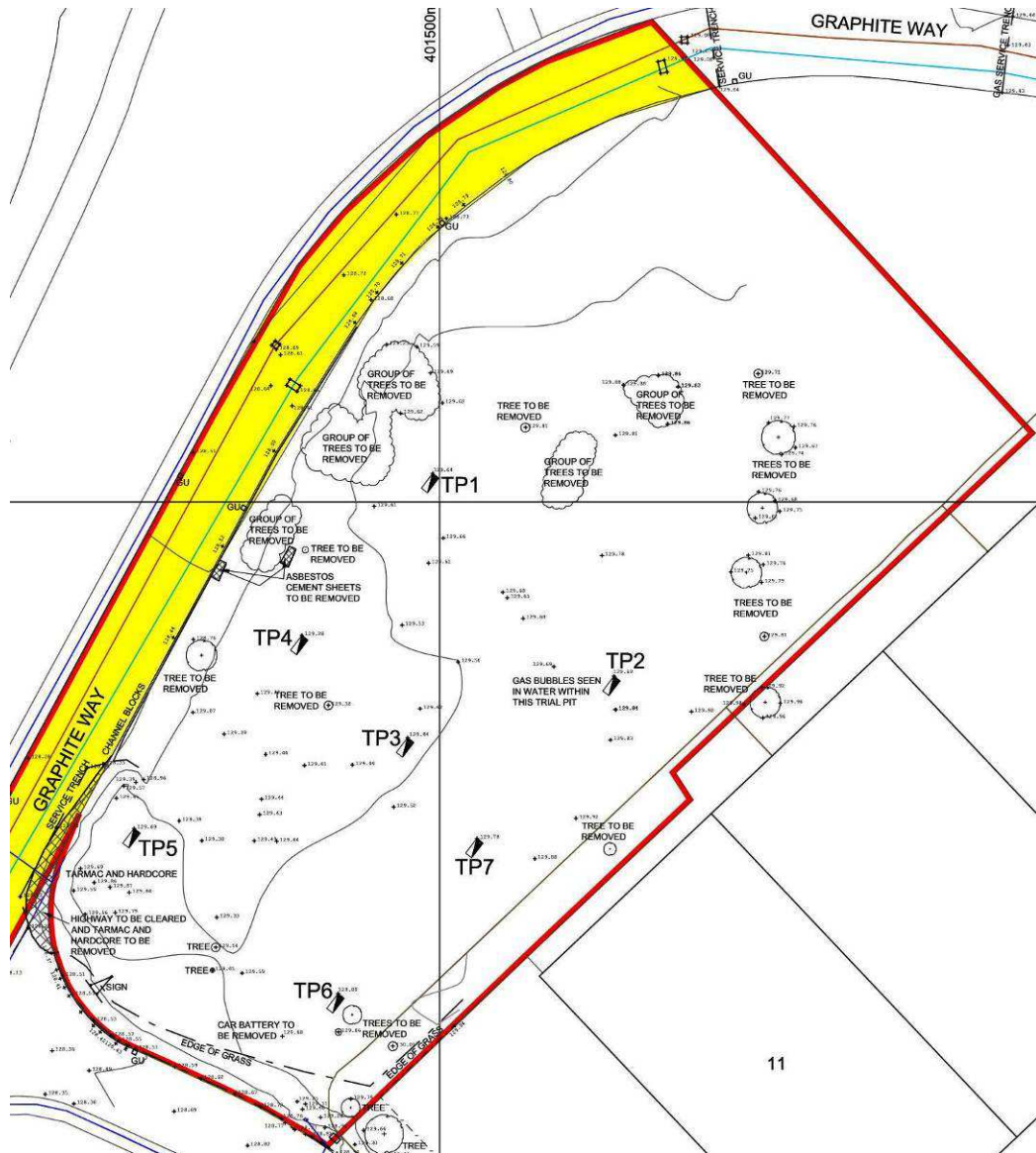
- 4.2.9 We therefore contend that the impact on the local transport infrastructure caused by the proposed development will be minimal and therefore this application should not be refused on traffic and highway grounds.

#### 4.3 Output from the Proposed Facilities

- 4.3.1 The maximum projected output of electricity which would be exported from any of the generation facilities, at any one time, is to be up to 8 MW (Mega Watts), up to 24 MW if all three of the sites were running at full capacity.

#### 4.4 Site Investigation, Site Preparation, Construction and Installation Works

- 4.4.1 The proposed development area may well lie within a former landfill site.
- 4.4.2 On 7 June 2017, a preliminary site investigation was carried out in the form of a series of trial pits. 7 No. trial holes were dug – the location of the trial holes can be seen on drawing 16-2620-202 existing site plan, an extract of which is reproduced below.



4.4.3 The results of the trial pits are shown in the Initial Site Investigation Report, found in Appendix D of this Statement. The main findings are:

1. the proposed development area appears to lie over the site of a former tip / landfill site, which looks to have been capped by a consolidated hardcore and clay;
2. the average surface level at the trial pits is 129.63m A.O.D. We calculate that the average thickness of unconsolidated made ground which needs to be removed to facilitate the development is some 0.90m. In addition some localised soft spots will need to be excavated and be filled with suitable hardcore. Therefore, the proposed excavation level is 128.73m A.O.D (129.63m – 0.90m);
3. assuming a minimum of 150mm DOT type 1 stone will be placed over the sites plus an additional 75mm of stone chippings, this gives a finished site level of 128.95m A.O.D, with the concrete bases sitting a further 25mm above that;
4. gas bubbles were noted within water seeping into Trial Pit 2. Whilst no gas samples were taken during the investigation, it appeared that the gas bubbles could well be either Carbon Dioxide or possibly Methane associated with the former tip which is believed to be present under the site;

Should the development be granted planning permission, a full Desk Top Study and a more detailed site investigation, including gas spike tests, would be carried out to verify the type and extent of any gas emissions. The development would need to be designed to incorporate appropriate mitigation measures to ensure it can take place in a safe and proper manner with regard to the ground condition.

4.4.4 Samples were taken from the trial holes and 3 No. of these samples, along with a piece of asbestos cement tile found on the site, were sent to a UKAS accredited laboratory to confirm whether or not the material would be suitable to be removed from the site and be taken to landfill.

4.4.5 Once the main excavation has been carried out and the sites have been capped with DOT type 1 stone, a small amount of additional ground works will be required to prepare the sites to receive the proposed plant and equipment.

4.4.6 The plant and equipment will sit on reinforced concrete slab foundations.

4.4.7 No deep excavations will be required, only relatively shallow cable and pipework trenches.

4.4.8 During those works, the normal working hours would be restricted to between 7:30am and 6:00pm, Monday to Friday and there would be no requirement to work at weekends or on Statutory Holidays.



#### 4.5 Services

- 4.5.1 Each of the proposed facilities will require a natural gas supply to be installed. The indicative route of this supply, to each of the sites, is shown dashed blue on the proposed site plan, drawing 16-2620-203.
- 4.5.2 A new dedicated electricity grid connection will be installed to support the output from the compounds, should planning permission be granted. The indicative route of the electricity cable to each site is shown dashed purple on the proposed site plan.
- 4.5.3 A telecom and water connection will also be required.
- 4.5.4 The main electricity cables and gas supplies to the sites will be buried below ground. However, it is likely that as much of the cabling and pipework as possible will be sited above ground, as part of the mitigation measures mentioned in Section 4.4.3 of this statement.

#### 4.6 Fencing and Gates

- 4.6.1 The boundaries of the proposed development are to be enclosed by 2.4m high welded wire mesh fencing and gates with rectangular box section posts, painted black (or such other colour as may be agreed with the Local Planning Authority [the LPA]). The type and style of the fencing is to be similar to that which has been used on nearby properties on Graphite Way.

#### 4.7 Site Security, Lighting, Safety and Amenity

- 4.7.1 Each site will be fitted with at least 2 No. 4 meter high CCTV masts with low light cameras.
- 4.7.2 In addition to the CCTV cameras, a single public address loudspeaker and various motion detectors will be installed on the sites. The CCTV, loud speaker and motion detectors will be routed to a control desk that will be manned 24 hours a day 7 days a week. This system will be able to detect unauthorised access to any of the sites and allow the control desk to challenge such unauthorised access through the loudspeaker.

- 4.7.3 For safety and security reasons there will be a requirement to provide lighting to the sites. Low-level lighting will be fitted over the main doors to each of the containers housing the generator engines. Most of the time the lights will remain off. The impact of the lights will be further reduced by providing infra-red or movement sensors with time delay switches (so the lighting only comes on when needed) and by pointing all lights inward or downward facing to avoid glare. The plants will normally be unattended so the lights will generally be off at night.
- 4.7.4 Generally, no one will work at the facilities. They will run automatically, when required. Maintenance personnel will, however, visit the sites, from time to time.

## **5. ENVIRONMENTAL IMPACT**

### **5.1 Landscape and Visual Amenity**

- 5.1.1 The proposed generation facilities are to be constructed on land which is currently vacant with some planting and shrubs.
- 5.1.2 A hedge will be planted around the northern and western boundaries of Compound 1, and the southern and western boundaries of Compound 2 to help screen the development.
- 5.1.3 It is considered that the compact nature of the proposed generation facilities, using low rise containers painted dark green and the screen hedge, will not adversely affect the vicinity of the site.

5.1.4 Existing site viewed from Graphite Way, opposite the site



Proposed site viewed from Graphite Way, opposite the site





## 5.2 Noise

- 5.2.1 The nearest residential housing to the proposed development is some 293m to the north-west of the proposed site and there are further residential houses around the site, the closest of these are some 350m to the south on Woolley Bridge Road.
- 5.2.2 The proposed generation facilities will only run a limited number of hours a year and will only run at night on very rare occasions when the Grid demands the power in exceptional circumstances.
- 5.2.3 Mercia Power Response Ltd has appointed specialist Noise Consultant, Mr Peter Tallantyre of Arcadis Consulting (UK) Ltd, to review the predicted noise impact of the proposed development on the neighbourhood. The Noise Impact Assessment, dated 11<sup>th</sup> July 2017, Ref: 002- UA008888-UE31-07-C can be found in Appendix B of this statement.
- 5.2.4 Baseline noise levels have been quantified at a couple of locations around the site in order to represent the existing noise climate of the surrounding area. The data used was quantified at the site in June 2016 and also in June 2017. The locations can be seen on the images below.

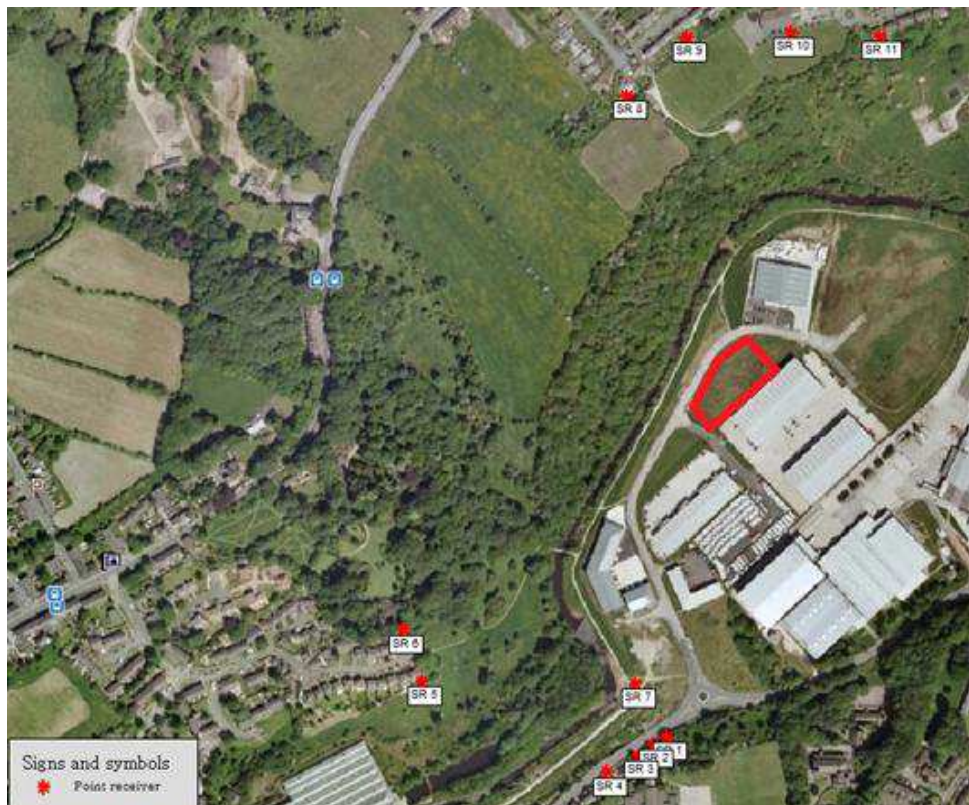
June 2016



June 2017



- 5.2.5 The noise levels generated by the site have been predicted and assessed. This concluded that *“noise associated with the contractual daytime period (between 07:00 and 22:00) would be at a level where the BS4142 Standard considers the assessment to have an ‘Indication of the specific sound source having a low impact’.”* The noise has been assessed at several locations – the location of these points can be seen on the image below.



- 5.2.6 In relation to the Capacity Mechanism contract (the 1 in 10 year emergency scenario operations) the study concluded that *“noise would be generally at a level where the BS4142 Standard would consider the assessment to be between an ‘Indication of the specific sound source having a low impact’ and a situation where there is ‘likely to be an indication of an adverse impact, depending upon context’.”*
- 5.2.7 As stated above, at some of the assessment locations, the BS4142 Standard concluded that the predicted facilities noise to be a potential indication of significant adverse impact depending on the context. The context in this situation is to be:
- the overnight operation of the facilities is not normal operational requirements which would typical be restricted to between 07:00-22:00 hours;
  - the 1 in 10 year emergency lights out scenario operation of the STOR program has never been invoked during the history of the Capacity Mechanism; and,
  - the alternative to some limited noise disturbance would be loss of power to the area and the adverse implications that this brings to modern life.
- 5.2.8 The general conclusion of the noise impact assessment is that *“overall it is concluded, and demonstrated, that based upon the information contained within this report, there are no significant issues relating to normal operational noise associated with the proposed Mercia Power Response STOR facilities at the north eastern end of Graphite Way that would be sufficient to deny the approval of planning permission on the grounds of noise.”*
- 5.2.9 As mentioned in Section 2.2.6 of this Statement, it is envisaged that, should planning permission for this proposal be granted, Mercia Power would not develop the original site, therefore no cumulative impacts have been assessed as part of the noise impact assessment.
- 5.2.10 Therefore the applicant believes that there are no significant issues relating to operational noise associated with the proposed development.

### 5.3 Dust and Airborne Emissions

- 5.3.1 Apart from a small amount of dust which must be expected during the construction of the sites, there will be no significant dust produced during the life of the plants.
- 5.3.2 The proposal is to use up to eight spark ignition internal combustion gas engines, split equally between the three sites, to each drive an alternator, which will generate electricity.



- 5.3.3 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 plants via a chimney. Under certain conditions (particularly in cold weather) a steam plume may emanate from the chimneys. This is non-polluting, the only consideration being the visual effect.
- 5.3.4 The spark ignition generator engines that are proposed for these sites will generate electricity from natural gas.

#### 5.4 Vibration

- 5.4.1 The generating engines 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.
- 5.4.2 Mercia Power Response Ltd strive to ensure that the plants are designed and operated to eliminate vibration nuisance at neighbouring properties.

#### 5.5 Agriculture

- 5.5.1 No agricultural land is present within the application area.

#### 5.6 Ecology

- 5.6.1 A Preliminary Ecological Appraisal, which can be found in Appendix C, was undertaken for the proposal by Messrs Peak Ecology Limited of Arden House, Deepdale Business Park, Bakewell, Derbyshire DE45 1GT, dated 23/05/2017, Ref: BAKBA19.
- 5.6.2 The Executive Summary of the Preliminary Ecological Appraisal covered the following main points:
- A single statutory designated site (Dark Peak Site of Special Scientific Interest) was present within 2km of the site and the site does fall within the associated SSSI risk zone. However, no impacts on the SSSI are envisaged.
- A number of non-statutory sites were also present with Hollingworth Reservoir and Swallowswood Nature Reserve being the closest. Again, no impacts are envisaged.



No rare or notable floral species were found and the habitats found were not included in the UK Post-2010 Biodiversity Framework. No ecological impacts are envisaged.

The site provided suitable habitat for foraging badgers, birds and foraging bats. The river was suitable for foraging and commuting otters.

5.6.3 The Appraisal recommends the following:

Lighting associated with the development (during construction and the operational phase) should be low level to minimise disturbance to foraging bats – in particular illumination of the nearby river must be avoided.

Trenches and pipework should be capped / covered overnight to prevent mammals from becoming trapped.

Construction work should only take place during daylight hours as there is the potential for otters to use the river during dusk and/or dawn.

5.7 Archaeology and Cultural Heritage

- 5.7.1 The Applicant is not aware of the presence of any site of Archaeological Interest, Conservation Area, Listed Building or Ancient monument which would be affected by the proposed development.

5.8 Socio Economics

- 5.8.1 During the site establishment and construction phases of the development, the number of workpeople on the sites will vary between 5 and 15.
- 5.8.2 Mercia Power Response Ltd operates a policy of purchasing all construction materials from local suppliers as well as contracting with local civil engineering companies to undertake the construction of the sites.
- 5.8.3 It is accepted that the proposals will not result in any additional employment, but it will help secure the employment of those employees and sub-contractors who work for Mercia Power Response Ltd.
- 5.8.4 The local economy will benefit from the Business Rates payable on the new hereditament.

## 5.9 Prevention of Pollution of the Water Courses or the Ground

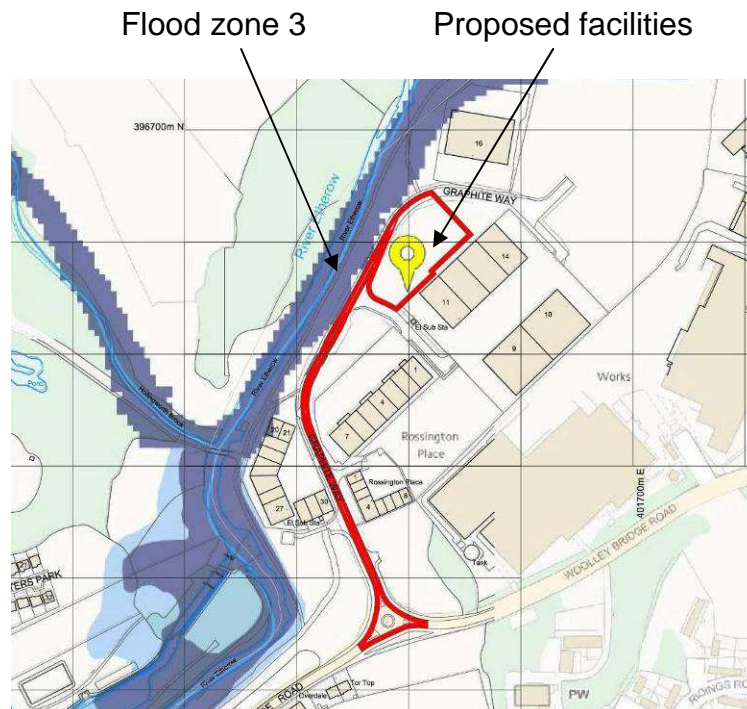
- 5.9.1 During the construction and operational phases, diesel oil will be stored on the sites in approved bunded tanks. In addition, throughout the operational phase, it will be necessary from time to time to store a small amount of oil and engine coolant on the sites. This will be kept in proprietary bunded containers with suitable covers.

The bunded containment is to be designed to retain 110% of the maximum volume of stored materials and is to comply with the Control of Pollution (Oil Storage) (England) Regulations 2001.

- 5.9.2 Therefore, none of the proposals will cause pollution of the ground or groundwater.

## 5.10 Drainage and Flood Risk

- 5.10.1 The proposed construction is a hardcore platform which will be porous and largely self-draining. These areas will not cause any change in the run-off characteristics of the site.
- 5.10.2 The flood map, taken from the Government's website, shows the sites are within Flood Zone 1, so therefore have a low probability of flooding. Low probability means the sites have a less than 1 in 1,000 annual probability of river or sea flooding; therefore flooding of the proposed sites is very unlikely to occur within the lifespan of the development.



- 5.10.3 Therefore, it is concluded that there would be no increase in flood risk arising from the proposed development.

5.11 Town & Country Planning Environmental Impact Assessment Regulations 2011 (As Amended)

- 5.11.1 The application area is some 0.94 Ha (2.32 acres) or thereabouts, including the proposed access route. The operational area of the three facilities, combined, will be some 0.40 Ha (0.99 acres) or thereabouts.
- 5.11.2 The project falls within a description of the development listed under Schedule 2, Column 3(a) of the EIA Regulations 2011 but as the operational area does not exceed the indicative threshold of 0.5 Ha in Column 2, we believe there is no requirement for an Environmental Impact Assessment (or Environmental Statement) to be provided for this development. However, this statement in support of the application does, however, provide certain information on environmental matters which have been considered, as part of the design process for this project.

**6. PLANNING POLICY AND SUSTAINABILITY**

6.1 National Planning Policy Framework

- 6.1.1 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 standby generation development.
- 6.1.2 *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.*
- 6.1.3 Embedded standby 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 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.

We contend that the site is completely suitable for such a use.

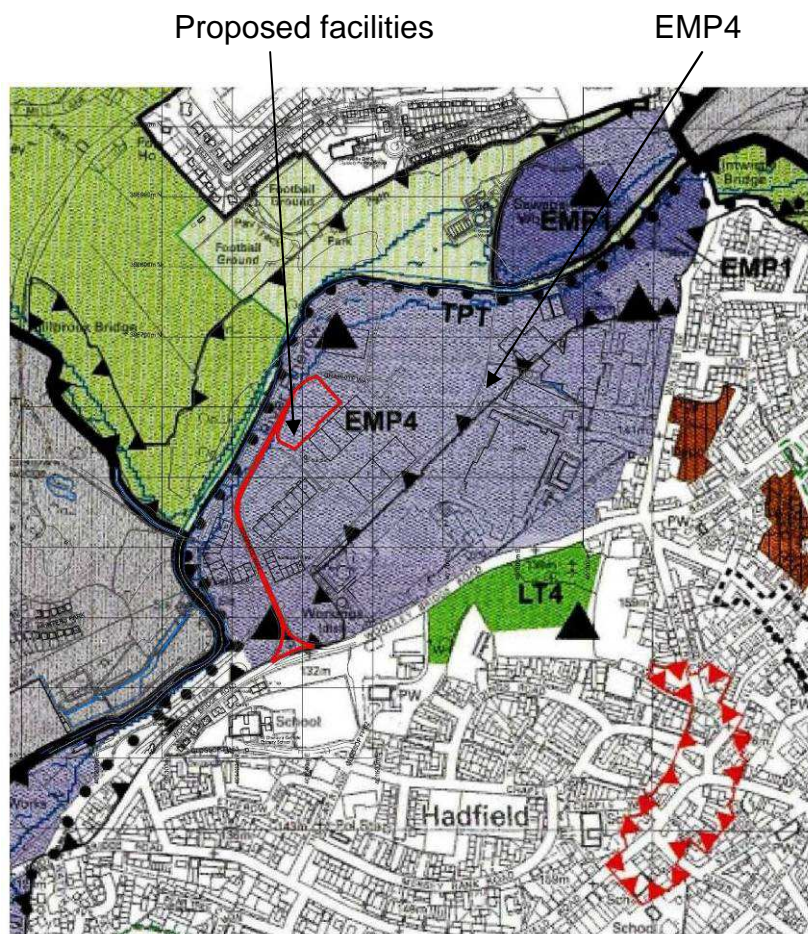
## 6.2 National Policy Statement for Electricity Networks Infrastructure (EN-5)

6.2.1 **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.*

6.2.2 Standby electricity generation facilities, like the ones proposed for Graphite Way, Hadfield, are an integral part of the arrangements to ensure a robust electricity distribution network system is provided across the Country. In addition, the proposal will assist in reducing carbon emissions, by producing efficient power when the Grid has a high load imposed upon it.

## 6.3 Extracts from the High Peak Borough Council Local Plan

6.3.1 The proposed facilities are to be sited on land which is designated as a Primary Employment Zone (EMP4) in High Peak Borough Council's Local Plan.



**6.3.2 Policy E4 (Change of use of existing business land and premises)**

- 6.3.2.1 While, it is accepted that the proposal will not result in any additional employment, it will help to continue to secure the employment of those employees and sub-contractors who work for Mercia Power Response Ltd.
- 6.3.2.2 If granted permission, the proposal will benefit the local economy by the Business Rates which will be payable on the new hereditaments.
- 6.3.2.3 Taking into account the above factors, it is considered that the principle of the proposed development should be acceptable.

**7. SUMMARY**

- 7.1 The Applicant is an expert in the field of back-up electricity generation.
- 7.2 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.
- 7.3 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. However the sites may need to run outside these hours if National Grid instructs the sites to run in emergency situations to fulfil the sites' duties under a standing reserve contract. These types of emergencies are extremely rare, indeed no such event has occurred in the UK over the last ten years.
- 7.4 Predicted noise and other emissions from the proposed development are considered to be entirely acceptable; subject to the mitigation measures described earlier in this statement, and would not result in any loss of amenity in the area.
- 7.5 The impact on the local transport infrastructure caused by the proposed development will be minimal and therefore this application should not be refused on traffic and highway grounds.
- 7.6 Mercia Power has been granted planning permission, reference HPK/2016/0470, dated 4 November 2016, for a similar facility some 235m to the south-west of the proposed site. It is envisaged that, should planning permission for this proposal be granted, Mercia Power would not develop the site, therefore not activating the existing planning permission.

7.7 Bearing the above in mind, the location of these proposed facilities is preferred, to the originally approved site, because:

- the sites are less visible from the adopted highway, Woolley Bridge Road and residential properties along the highway;
- the sites are in a less prominent location;
- the sites are also located further away from the River Etherow and the adjacent track;
- the sites are further away from the nearest residential property; and,
- there is the opportunity to provide more visual screening to the chosen sites.

7.8 Therefore, taking the above factors into consideration, the Applicant, Mercia Power Response Ltd, and we, as its Agents, respectfully conclude that planning permission for the proposed back-up power generation facilities on Graphite Way, Hadfield should not be refused because it is considered that the benefits of the proposed development will far outweigh any harm.