

PLANNING CONSENT P2014/0729

ENERGYBUILD Ltd. (Or the Operating Company) ABERPERGWM COLLIERY SCHEME FOR THE MITIGATION OF LIGHT POLLUTION AT THE MINE SURFACE AREA JUNE 2019

CONDITION 40

Within 6 months of the re-commencement of underground operations at the mine as notified in accordance with Condition 3 above, a scheme for the mitigation of light pollution at the Mine Surface Area shall be submitted to and approved in writing by the Local Planning Authority. The scheme shall include details of the nature of the management and control of lighting proposed for the site, including the level of lighting and the timing mechanisms proposed on any working day. The scheme shall be fully implemented on the completion of the construction works at the site or before the beneficial use of the coal preparation plant building, whichever is the sooner and shall be maintained as such for the duration of the development.

Reason

To minimise the disturbance to neighbours, the surrounding area and in the interests of highway safety

General

Light intrusion occurs when the light 'spills' beyond the boundary of the area being lit. For example, light spill can impair sleeping, cause annoyance to people, compromise an existing dark landscape and/or affect natural systems (e.g. plants, animals, insects, aquatic life). It can be completely avoided with careful lamp design selection and positioning:

Lighting near or above the horizontal will be avoided to reduce glare and sky glow. Good design, correct installation and on-going maintenance is essential to the effectiveness of the lighting installation.

Lighting only when the light is required can have a number of benefits, including minimising light pollution, reducing harm to wildlife and improving people's ability to enjoy the night-sky

Energybuild recognises the annoyance and adverse effect on amenity that intrusive lighting may cause to local residents.

To mitigate any impacts on the locality all non-essential processing orientated lighting will be switched off. Lighting will be switched off between 7pm and 7am. All essential lighting

required for safety and security will in general be of low power and will be set at lower elevations.

Impact on sensitive wildlife receptors throughout the year, or at particular times will be mitigated by the design of the lighting and by the volume of lighting used at the site. Refer to "*The Myotis Bat Light Mitigation Scheme*" appended

Glare will be avoided, particularly for safety reasons. This is the uncomfortable brightness of a light source due to the excessive contrast between bright and dark areas in the field of view. Consequently, the company operates a policy to replace all halogen and high pressure sodium lights to more acceptable low power LED lighting. The advent of modern LED technology, has allowed more flexibility for controlling light spill, choice of wider colour temperature options and implementation of more flexible lighting schemes unlike previous restrictions with sodium and halogen technology.

The needs of particular individuals or groups within the community will be considered (e.g. the safety of pedestrians and cyclists for example). Complaints from members of the public or other stakeholders will be investigated and the appropriate actions taken to rectify the circumstances.

SCHEME FOR THE MITIGATION OF LIGHT POLLUTION AT THE MINE SURFACE AREA

The current lighting arrangements utilised at the Aberpergwm Colliery Site are identified on the attached plan Ref. AC/P20014/0792/C40/19

No lighting or floodlighting whether fixed or portable will be used on the Mine Waste Repository Site, Peat Mitigation Area or Haul Road.

Operational Lighting within the Mine Surface Area, lighting other than lighting ancillary to underground operations, water pumping, servicing, environmental monitoring, maintenance repair testing of plant, low level security lighting and lighting required for the maintenance of safety will be switched off on the site except between the following times:

0700 to 1900 hours Mondays to Fridays.
0700 to 1600 hours Saturdays

Lighting will be directed to where it is needed and light spillage will be avoided. This will be achieved by the design of the luminaire and by using hoods and shields to direct the light to the intended area only.

All lights will be directed back in towards the preparation plant and to the interior of the site in general to avoid light spillage. The lighting will be reduced during the night as not all areas (Operational Lighting) of the site will be at work. Security/safety lights will remain on but will not be greater than 150W as the use of a higher power is not as effective for the intended function. Where possible security lights will be fitted with movement sensors (PIR) which will reduce the amount of time a light is on each night. The use of infra-red lighting and cameras

will also be utilised for security purposes thus cutting down on the quantity of security lighting required.

The company operates a policy to replace all halogen and high pressure sodium lights with low power LED lights.

No further lighting will be installed on site, other than that shown on the appended plan Reference AC/P20014/0792/C40/19. The bat flight corridors identified on plan ref. CA10289/PA03B, "*The Myotis Bat Light Mitigation Scheme*", Appendix 1 will be devoid of all direct lighting.

Security and safety orientated lighting will be automatically controlled by means of photocells and will be set to illuminate at dusk until dawn.

Operational lighting will be timed via electronic timers to illuminate and shut down at the beginning and end of stated working periods. They will not be energised during periods of adequate natural light i.e. daylight hours.

Signed
T W Davies
Manager

Date

APPENDIX 1

Scheme of Work For The Mitigation of Light for Myotis Bats

A scheme has been drawn up to limit light entering the northern wooded area behind Cae Capel which may adversely affect bat activity.

Lamps

Lighting will be supplied by Thorn. The Civic 2 range will be used with the impact on bats being minimized by the use of high pressure sodium lamps instead of mercury or metal halide lamps. High pressure sodium lamps are pinkish-yellow lamps commonly used as road lighting. Light is emitted over a moderate band of long wavelengths including a small UV component. The lamp is of medium size and the light can be more easily directed than low pressure sodium lamps.

Illumination

Lighting will be directed to where it is needed and light spillage will be avoided. This will be achieved by the design of the luminaire and by using hoods and shields to direct the light to the intended area only. Manmade features that are required within the build, such as the 19 metres high stores building have been positioned during the planning stage so as to form a barrier. The soil storage area as well as the tree line periphery and as far back as the village will be protected against light spillage. A bat feeding corridor will therefore be provided in this area and allow the northern and southern boundaries of the field to be linked.

All lights will be directed back in towards the preparation plant to avoid light falling on flight corridors within the wooded area surrounding the washery. The lighting will be reduced during the night as not all divisions of the plant will be at work. Security lights will remain on but will not be greater than 150W as the use of a higher power is not as effective for the intended function and will be disturbing for bats. Where possible security lights will be fitted with movement sensors which will reduce the amount of time a light is on each night. The use of infra-red lighting and camera will also be used as means of security thus cutting down on the quantity of security lighting.

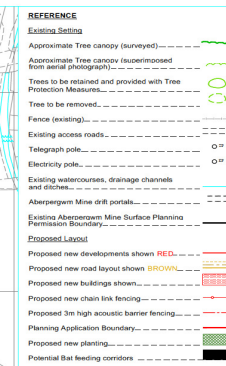
Around the washery boundary lighting columns are needed to illuminate the road. These taller columns will direct light downwards at a more acute angle thereby reducing horizontal spill. The light will be aimed to illuminate only the immediate area required by using as sharp a downward angle as possible. A shield or hood will be used to control or restrict the area to be lit.

Feeding Corridors

Potential Bat feeding corridors are indicated on the attached Drawing No. CA10289/PA03B.

In order to thicken the wooded screen between the eastern periphery and the B4242 a narrow strip has

been set aside where small trees and shrubs are to be planted. This will act as a barrier thus cutting down light and offering the opportunity for the corridor to be used as an area in which bats may travel and feed. Pryce Consultant Ecologist, Barry Stewart suggests Energybuild plants either trees between the northern wooded periphery and then fence line or constructs a barrier board of up to 1m in height along the length of the fence creating an area of darkness running perpendicular to the plants northern boundary.



NOTE :
Refer to separate drawing for details of proposed finished levels.

B Planning Application boundary amended in respect of minor road widening of B4242.

A Removal of sized sandstone product bins, addition of coal storage building and acoustic fencing adjacent access road. Planning boundary amended. Attenuation pond size increased.

ENERGYBUILD Ltd.				
PROJECT		MINE SURFACE DEVELOPMENTS AT ABERPPOWELL MINE		
DRAWING TITLE				
Potential Bat Feeding Corridors				
Scale	Drawn by	Checked by	1:1000	Date
Scale	CA10269/P0A038	Checked by		APRIL 2010
Revisions	Revised by		Revised by	Approved by
1	Initial on client	TEL 01491 7777	1	Approved
2	Revised on client	TEL 01491 7777	2	Approved
3	Revised on client	TEL 01491 7777	3	Approved
4	Revised on client	TEL 01491 7777	4	Approved
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66	Revised on client	TEL 01491 7777	66	

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**SCHEME FOR THE MITIGATION OF LIGHT POLLUTION AT THE
ABERPERGWYM MINE SURFACE AREA**

KEY

FLOOD LIGHT
ALL FLOOD LIGHTS ARE POINTED DOWN
AND FACE INTO THE SITE WHEREVER
POSSIBLE

28 W FLUORESCENT BULKHEAD FITTING
PHOTO CELL CONTROLLED
ILLUMINATED DURING HOURS OF DARKNESS -
SAFETY AND SECURITY.
GENERALLY INSTALLED AT ELEVATIONS BELOW
3.5 METRES

LIGHTING POLE WITH FLOOD LIGHTS
NATURALLY ILLUMINATED DURING HOURS OF
DARKNESS
PHOTOCELL CONTROLLED
(ANGULARLY TO UNDERGROUND MINING
OPERATIONS)

18 W 8.8MM FLUORESCENT TUBE LAMP
ILLUMINATED DURING NORMAL CONCENTED
OPERATIONAL HOURS ONLY

GENERAL

1. IT IS NOT PROPOSED TO INSTALL ANY FURTHER LIGHTING OTHER THAN THAT SHOWN ON THIS PLAN.
2. LOW LEVEL INSTALLATIONS REFERS TO LIGHTING FITTINGS INSTALLED BELOW 3.5 METERS ABOVE GROUND LEVEL.
3. THE LIGHTING INSTALLED DOES NOT IMPAIR ON THE BAT FLIGHT CORRIDORS. REFER TO APPENDIX 'E' SCHEME OF WORK FOR THE MITIGATION OF LIGHT FOR ANYOTS BAIT?
4. THE COMPANY OPERATES A POLICY TO REPLACE ALL HALOGEN AND HIGH PRESSURE SODIUM LIGHTS WITH LOW POWER LED.
5. ALL LIGHTING AGREED WITH THE COAK PROCESSING OFFICE WILL BE SWITCHED OFF OUTSIDE HOURS OF OPERATIONAL TIME (I.E. 0530 TO 1600 MONDAY TO FRIDAY. 0700 TO 1600 SATURDAY)
6. NO LIGHTING OR FLOODLIGHTING WHEN FENCED OR PORTABLE WILL BE USED ON THE WING MAINTS REPOSITORY SITE, PEAT MITIGATION AREA OR RAIL ROAD.

DATE 02 APRIL 2019

PLAN REFERENCE AC/P20140728/C40/19

