PEAK POWER CONNECTIONS LIMITED

PLANNING APPLICATION FOR THE

CONSTRUCTION OF A 20MW FLEXIBLE

ELECTRICITY GENERATION UNIT

FOR SHORT TERM OPERATIONAL RESERVE (STOR)

CAPACITY ON LAND AT

WATERSWALLOWS QUARRY,

WATERSWALLOWS ROAD, BUXTON

February 2017

1. Executive Summary

Planning permissions HPK/2016/0509 and HPK/2016/0511 were granted on 03 November 2016 for the installation of two 20 mgw Short Term Operating Reserve (STOR) electricity generating facilities on land forming part of the former Waterswallows Quarry, near Buxton. Neither permission (hereafter referred to as 0509 and 0511) have not yet been implemented. Permission 0511 was for exclusively gas generators but permission 0509 was based on diesel generators with the potential for conversion to burn gas.

Such installations are supported by the Department for Energy and Climate Change and National Grid as a necessary part of the response to the imminent energy capacity crisis facing the UK and the inflexibility of large scale generation facilities and renewable energy sources to respond to short term variations in energy demand.

In the past 2 months, the Department for Energy and Climate Change (DECC) in conjunction with the Department for the Environment Farming and Rural Affairs (DEFRA) has announced its intention to consult on options including legislation that would set binding emission limit values on relevant air pollution limits from diesel engines, with a view to having legislation in place no later than January 2019 and possibly sooner. This will primarily affect diesel engines and will specifically directly impact STOR installations with a thermal input less than 50MW that become operational after the proposals are published. The proposal being circulated is that the sites will need to comply with the provisions of the MCPD (Medium Combustion Plant Directive). This in terms of machines means diesel will not be able to comply and only the latest lean burn gas engines (250mg/NOx) can be installed.

The applicant therefore wishes to amend the 0509 permission to permit the installation of appropriate single fuel gas generators. Whilst these are some 3 metres shorter than the permitted generators, they are substantially wider and therefore require a larger application site. Diesel storage tanks, however, are not required.

This application also includes details of 2 proposed substations to serve both the proposed revised development and the 0511 development.

The footprint of the revised application site is 0.39ha and incorporates the 0509 footprint.

2. Background

The policy acceptability of this type of development on this site has been established by virtue of the two existing permissions (0509 and 0511) and the alterations applied for, whilst “material” in planning procedural terms, are relatively minor. All the planning conditions applied to 0509 can and will be complied with.

However, this application includes all the background information and appropriately amended plans and technical reports, originally submitted in support of 0509.

Such development forms part of the UK’s essential energy generation strategy for the management of the imminent shortfall in energy generation capacity predicted to arise and persist for the foreseeable future at least until new large scale generating capacity and complementary renewable sources can be developed and brought on stream.

STOR type developments are small scale local generation facilities based on conventional fossil fuel (gas) which can be brought on stream within 2 minutes as and when called upon by the National Grid to meet short term local peak demand period deficits in generation capacity.

The proposed site has been chosen as the applicant believes it meets the location criteria required to ensure its sustainable operation. This includes its close proximity to an existing electricity substation with the required capacity.

The equipment proposed would be sited on land on the south side of Waterswallows Lane, Buxton forming part of the former Waterswallows Quarry plant site area, which was closed and de-commissioned in the late 1990s. It lies directly adjacent to and opposite long established industrial areas and has been designed to best practice in terms of scale and environmental performance. The facility as a whole is discretely sited with minimal environmental impact, both in terms of visual, traffic and amenity considerations.

Recent Government Planning Policy and Guidance emphasises the need for the planning process to acknowledge and support the need to build and sustain the national and local economy and to this end has reiterated the presumption in favour of development wherever it is sustainable and accords with Development Plan policy.

The proposals are largely compliant with the general thrust of both Government policy and that of the recently adopted Revised High Peak Local Plan. In particular, it is a vital component of the expansion of energy infrastructure required to support the Strategic Aims of the Local Plan to sustain and enhance the economic and employment base of the Borough through the its encouragement of and provision of sites for new sustainable development. The possible exception is the local policy relating to industrial development in a “rural area” although it has been accepted that the development can be considered as strategic development and therefore an “appropriate” exception.

As part of the UK’s essential energy generation strategy, and bearing in mind its potential value to the local economy in contributing to the security of energy supplies to the Buxton economy throughout the crisis period, the existing and historical industrial use of the land and the care taken by the applicant in the design and treatment of the proposals themselves, the applicant believes that it would be consistent with Government Guidance and local Development Plan policy for the application to be granted.

3. The Application

This planning application by Peak Power Connections Ltd (PPCL) is for the construction of a “Flexible Electricity Generation” unit for Short Term Operational Reserve (STOR) capacity on disused industrial land adjacent to Waterswallows Road in Buxton.

It is supported by this Statement, a Heritage Statement and Ecology and Noise Assessment reports and the following Drawings:

Dwg No PPC 1: Site Location 1:1250 (at A3)
Dwg No PPC 2: Application Area 1:1250 (at A3)

Dwg No PPC 3: General Arrangement 1: 200
Dwg No PPC 4: Site Elevations 1:100 (at A1)
Dwg No PPC 5: Switchgear Container
Dwg No PPC 6: Acoustic Fence (various)
Dwg No PPC 7: Right handed Generator
Dwg No PPC 8: Left handed Generator
Dwg No PPC 9: 33Kv Transformer
Dwg No PPC 10: Gas Cabinet
Dwg No PPC 11: Stone clad Substation
Dwg No PPC 12: Entrance detail

No pre-application meeting with planning officers of the Authority was considered necessary in view of the recent planning permissions granted. However, such meetings were held in relation to two previous applications for similar developments on land in the immediate vicinity, both of which were approved in 2013 and 2015. The feedback received in relation to those applications indicated that, at less than 0.5 ha in size, the type of development falls outside the provisions of Schedule 2 of the Town and Country Planning (Environmental Impact) Regulations 2011 and therefore does not constitute EIA development. Furthermore, advice was received in relation to the environmental and policy issues which were considered relevant for those applications and the applicant has taken the view that the same issues will be appropriate for this application.

2. Background

The UK Government has become increasingly aware over recent years of the continual falling power generating capacity in the United Kingdom. In response to this situation, the Department for Energy and Climate Change (DECC) established a new methodology of addressing this decreasing capacity. This methodology, called the 'Capacity Market', has now been operating for over 3 years. The 'Capacity Market' is in addition to other initiatives including STOR.

Both the Capacity Market and STOR are initiatives being operated by National Grid (NG) to enable it to meet its Balancing Supply and Demand (BDAS) obligations under its Transmission Licence (issued by DECC) to ensure a balance between electricity supply and demand.

At certain times of day, NG needs power in the form of either generation or demand reduction to be able to deal with actual demand being greater than forecast demand, and plant breakdowns.

The STOR scheme is a vital component in enabling such fluctuations in demand to be met promptly and efficiently (a feature which large inflexible power generating facilities and intermittent sources such as wind power cannot provide).

However, it is also part of the wider industry strategy, supported by Government via their "Capacity Market" initiative. The UK has an acknowledged electrical energy deficit for at least the next 10 years as a result of rising demand combined with the loss of over 20% of existing generating capacity. One key reason for this loss of generating capacity has been the implementation of the Large Combustion Plant Directive (LCPD, 2001/80/EC) which has resulted in the closure of a significant number of coal and oil fueled electrical generation power stations in a bid to reduce emissions of sulphur dioxide (SO2) and nitrogen oxides (NOx) and dust (particulate matter (PM)) from large combustion plants (LCPs) such as power stations, petroleum refineries etc.

A press release issued by the DECC on 23 November 2012 stated that "a Capacity Market will provide an insurance policy for Government against future supply shortages, helping to ensure that consumers continue to receive reliable electricity supplies at an affordable cost. Despite the increase in STOR capability across the UK, the UK Government has recognised that more needs to be done to provide the additional generating capacity which is now needed".

In its June 2014 'National Grid EMR[1] Electricity Capacity Report' National Grid stated:
'Due to plant closures and the need to replace and upgrade the UK's electricity infrastructure, the UK electricity sector will require significant capital investment over the next decade. The Government's EMR programme provides an ambitious package of measures to incentivise the investment needed to replace the ageing infrastructure.'

PPCL has completed an option to take a lease of the site subject to the grant of planning permission and proposes to enter the full Capacity Market tendering procedure which will be formally initiated in December 2016.

The PPCL infrastructure is small-scale generation and of necessity is local in nature. The operating principle is that NG can call upon the capacity at short notice (2 minutes) to feed power into the grid for such, generally limited, period as it is required. To facilitate this efficiently and viably, this requires the installation to be close to a main substation in order to access the grid which restricts the number of locations where it can economically be located. Such a substation is located within c 600m of the proposed site at Waterswallows Quarry.

STOR installations are flexible units, smaller, much quicker to build (6 months as opposed to 5-10 years) and more economic than conventional large fossil fuel or nuclear power stations. Being distributed throughout the country, small scale and close to the point of use, they are unobtrusive and require minimum additional infrastructure such as pylons and sub-stations. This is a particular advantage in the sensitive areas such as the Derbyshire High Peak.

To minimise the intrusion of flexible generation plants, it is necessary to avoid the need to build or reinforce pylons, transformers or other new infrastructure and equipment. They therefore need to be located close to existing substations with capacity for the import of electricity as well as its distribution from the upstream grid. There are relatively few such locations in the country.

PPCL's owners have researched the existence of such locations in the High Peak area, and found that, with the exception of the one at Waterswallows, none have sufficient capability of this nature combined with the availability of proximate or practical development land.

In terms of the scale of generation, the owners also consider that the time taken to secure approvals from all the necessary authorities, including the Infrastructure Planning Commission (IPC) for STOR facilities larger than those proposed for PPCL would be too long[2]. By the time such plants could be approved and built, the capacity crisis would be upon us. The owners therefore believe that the scale of the proposed development is the optimum

[1] Electricity Market Reform
[2] Installations with an input capacity of more than 50mw (equating to 20mw output) require additional permitting procedures to be completed

one designed to meet the urgency of the situation and that the site at Waterswallows Quarry is particularly suitable in the High Peak area.

Mains natural gas, whilst a fossil fuel, burns much cleaner than diesel and as such the emissions involved are reduced. The amounts of fuel used are also relatively small in incremental terms, and, by being so flexible in their response time, their existence improves the case for large but intermittent generators such as offshore wind. In doing so, they provide an indirect contribution to the UK's carbon reduction plan.

The facility proposed by PPCL at the Waterswallows Quarry site therefore would form part of the UK's overall power transmission network. As such it is deemed Essential Infrastructure and the applicant believes it should be considered as such in planning terms.

However, as well as supporting the national electricity supply system, in conjunction with the other two STOR sites in the vicinity, PPCL would also provide additional security of electricity supply to the domestic and industrial consumers in the Buxton and High Peaks area. In particular, the point of connection to the National Grid infrastructure provides the potential for the power generated to be sent direct to one of the largest electricity consumers in the High Peak, CRH's (Tarmac) premises at Tunstead Quarry, thus directly relieving the pressure on the grid to supply the town of Buxton and surrounding communities. There is therefore a local aspect to the need for the facility.

3. Site location and history

Dwg No PPC1 identifies the Site which is located approximately 2 km east of the centre of the town of Buxton in an established industrial area known as Waterswallows. It also shows that the application area is both part of and lies immediately adjacent to the manifestly brown-field site of the now exhausted and unrestored Waterswallows quarry. The site is currently disused.

Immediately opposite the site is the Waterswallows Industrial Estate (formally also part of the quarry), adjacent to which Nestle has recently relocated its Buxton Water bottling plant from its site within the Buxton urban area.

Dwg No PPC2 shows that the application site area and the above industrial estate are linked directly to the A6 via Waterswallows Lane, which has been upgraded to carry the extensive HGV traffic visiting the Tunstead Quarry complex lying c 1.0km to the east.

The proposed site is set back from Waterswallows Lane to and from which it will gain access. It is c 0.39 hectares, broadly rectangular in shape and is bounded on the west by similar unrestored quarry land. To the north is Waterswallows Lane and to the east and south lies the main body of the disused Waterswallows Quarry.

The land is not visible from the public highway being screened by an intervening landscaped mound. It is well screened from the east and west by existing topography and from the south, it is a small and distant element in the despoiled landscape of the disused quarry.

Virtually the entire footprint is hardsurfaced in heavy duty concrete.

5. Planning History

The site falls into the category of having been previously developed. It forms part of an area occupied by large scale quarry stone processing plant for over 40 years prior to its removal in c 1998 following closure of the quarry as a result of exhaustion of the mineral reserve. The permissions relating to the quarry and its ancillary operations lapsed following their omission from the registration and review procedure under the Environment Act 1995. No restoration or rehabilitation of the site has taken place and no beneficial use has been made of it since the closure of the quarry.

On 13 February 2014 (and again on 18 February 2016), and on 24 October 2014, permissions were granted for the development of two similar STOR facilities on 0.25 and 0.15ha of land some 100 and 200 metres west of the application area (HPK/2013/0627, HPK /2015/0617 and HPK/2014/0440). These involved respectively 16 and 14 megawatt (MW) capacity installations of 8 and 7 generators of the same type, delivering electricity to the same substation. These permissions have been implemented and the both facilities have now been commissioned.

In November 2016, two further permissions HPK/2016/0509 and 0511 for similar developments were granted. The proposed development will supercede the former.

6. Development description

Dwg No PPC3 contains details of the general arrangement of the development. This will comprise the placing of 11 x 2MW single fuel (gas) powered generators (each within its own acoustic container mounted on individual concrete rafts), 6 x 4MVA 33/11kV transformers (TX1-6), 1 high voltage electrical switchgear container and a GRP gas cabinet, all located within the installation compound.

Dwg No PPC11 illustrates the detail of the two substation buildings housing the Network Distribution Company's meter equipment which will be located outside the compound adjacent to the road. Both the substations will be constructed in block faced with Stanton Moor Sandstone (Dale View Quarry Buff) with a Welsh slate roof.

Some minor re-grading of part of the site will be required, notably to to construct the access road and to accommodate the substations, but all arisings will be retained within the application area.

The operational generator compound site will be enclosed within a 4.5m high acoustic fence and gated.

Electrical cabling to the grid connection point will be laid underground from the on-site metering substation. Likewise, a gas incomer pipe in Waterswallows Lane will be run into the site underground.

Access to the site will be via the original quarry entrance gate direct from Waterswallows Road which will be set back 10m from the public highway carriageway and a 2.4x50m visibility splay will be maintained in both directions – see Dwg No PPC12 The access road will follow the route of the existing quarry access through the screening mound such that direct visibility into the site and the quarry will not be available.

A temporary wheel cleaning facility will be provided during the construction period or until the internal access road is completed.

Other than traffic associated with its construction, vehicle movements will be confined to routine maintenance visits.

The facility is likely to be operational intermittently throughout the day during the winter months and periodically during the remainder of the year between 0700-2300, and at night, 2300-0700, in times of emergency.

The site will not be manned. It will be managed/supervised by the landlord from his premises in Waterswallows Industrial Estates immediately opposite.
The site is already hard surface and as such, the development will not generate any increased level of run-off to the public highway.

Dwg Nos PPC5-10 provide elevational and technical details of the various plant elements within the site – the proposed Switchgear Container, Generator units, Transformer container and Acoustic fence.

7. Environmental Impact

7.1 Visual and Landscape:
The area around Waterswallows is described in the Derbyshire Landscape Character Assessment as Plateau Pastures. The proposed site itself, being ex-quarry land and industrial in character, displays no features associated with this designation, nor will its proposed use have any impact, visually, functionally or in biodiversity terms, on the integrity of the landscape character of this part of the County.

Dwg No PPC4 shows site elevations viewed from the north and the west. Visibility of the installation itself from the north (the public highway) is substantially reduced by the intervening topography, and in any event is only of the acoustic fence. The view of the substations is likewise substantially reduced by the intervening topography.

Overall, visibility of the site is minimal from every direction. In any event, it lies within a degraded landscape of disused quarry workings and against a backdrop of intensely used haulage and other industrial activities and will not therefore be prominent or out of keeping with the immediate area.

The substations will be constructed with Stanton Moor sandstone facings (Dale View Quarry buff) and roofed in Welsh slate and will thus complement similar structures in the vicinity and blend with their background.

The acoustic fence will enclose the generating installation completely.

7.2 Emissions:
The proposed development will use the latest gas engine technology. The engines will be certified to be compliant with the US EPA Tier 3/4 requirements the most stringent in the world.
The MTU engines are therefore the latest development in the application of high-tech control in the field of exhaust emissions.
In addition each engine will come with a full Emission Control Warranty from the manufacturer as per the US EPA emissions requirements.

7.3 Noise:
Great care has been taken to establish the potential of the proposed development to impact adversely on existing sensitive receptors. Three such receptors have been identified as the residential property of Breezemount Farm c.400metres to the northwest, Lock Iron Cottages some 530 metres to the southwest and Hardybarn Farm, also some 530m to the east.

A detailed noise report has been commissioned to assess the impact of the proposed development on these properties. This Report is attached to the application. It concludes that, with the 4.5m high acoustic fence in place enclosing the whole site, and with appropriate attenuation of the generators at source, the predicted noise levels within amenity spaces linked to the residential properties will fall significantly below the threshold values offered in the WHO guidance and will be controlled to meet a maximum value of 38dBA at the nearest noise sensitive receptor.

7.4 Traffic:
The access to and from the site onto the Waterswallows Lane was used by HGVs and light vehicles for many years during the life of the quarry without incident.

The entrance to the Waterswallows Industrial Estate lies almost immediately opposite and is heavily used by HGVs and other vehicles. This situation, however, prevailed for many years during the life of the quarry, which occupied both sides of the road.

Other than short term traffic associated with its construction, operational vehicle movements in and out of the application site will be confined to periodic maintenance visits. This represents a negligible incremental addition to the existing level of HGV traffic on Waterswallows Lane associated with the Tunstead Quarry complex and the Waterswallows Industrial Estate.

Drawing No PPC12 shows the gate set back by 10m from the public highway carriageway and the 2.4x50m visibility corridor in each direction required by the conditions applied to permission 0509 metres from the public highway.

All vehicles visiting the site, both during construction and over its operational life, will exit the highway completely and manoeuvre within the application site, before exiting the site in forward gear.

A temporary wheelwash facility will be provided during the construction period.

7.5 Flooding and drainage:
The site area is below the threshold identified in the National Planning Policy Framework Technical Guidance Note for the preparation of a Flood Risk Assessment. The site is already hard surfaced and as such the volume of run-off from the site following development will not alter.

7.6 Ecology:
The site is predominantly hard surfaced in heavy duty concrete and was regularly trafficked for many years. However, a Phase 1 ecological desk study and walk over survey of the site and the land surrounding it within a radius of 250 metres has been carried out.
It has concluded that there are not considered to be any ecological constraints to development of the site other than potentially the presence on the site of great crested newt hibernacula, for which a mitigation and management protocol has been proposed.

The Report is submitted as an Appendix to this application, together with two letters containing supplementary information in response to issues raised by Derbyshire Wildlife Trust.

7.7 Lighting:
The site will not be lit during the hours of darkness other than in automated response to unauthorised intrusion or to carry out emergency repairs when additional ad hoc lighting may be brought on site.

7.8 Heritage:
A Heritage Statement has been prepared and is submitted as an Appendix to this application. It concludes that the long term industrial use of the site and the associated surface disturbance and compaction is such that the potential archaeological interest of the site either in itself or in association with either of the two Monuments identified in the vicinity is extremely remote and does not justify any further action.

7.9 Geodiversity:
A geological SSSI within part of Waterswallows Quarry lies in excess of 50 metres from the site. This distance is judged to be sufficient to ensure that there will be no risk of adverse impact on this feature, which is solely designated for the nature of its geological exposure.

8. Planning Policy context

The principal policy guidance and context is provided via the National Planning Policy Framework (NPPF) document issued by the Government in March 2012 and the 2016 High Peak Local Plan adopted in April.

8.1 The NPPF:
8.1.1 This reaffirms the established principle of the presumption in favour of development unless material considerations suggest otherwise[3]. In the context of such development being sustainable, it goes on the stress the importance of the planning system providing support through Development Plans for developments which contribute to the growth and sustainability of a strong economy by providing land in the right place for various types of development, including the provision of infrastructure[4]. It requires Local Planning Authorities to support development which meets the needs of business and the economy[5] and encourages the use of brown in preference to green field land[6].

8.1.2 In terms of energy related development, the emphasis is on providing positive support for alternative and renewable sources rather than the use of hydrocarbons. HoPPCver, it is acknowledged within the National Policy Statement for Energy Infrastructure (NPSfEI) that the future provision of energy to the UK will continue to be based in large part on hydrocarbons (and nuclear) for the foreseeable future. It is clear from DECC initiatives, of which STOR is one, that the importance of providing flexible generation capacity is accepted. STOR facilities are a small but vital element of an integrated matrix of generation capacity types, particularly in relation to bridging the predicted capacity shortfall gap.

[3] Paras 11 and 14
[4] Para 7
[5] Paras 19, 20 and 21
[6] Paras 17 and 111

8.1.3 Local Planning Authorities are also encouraged to identify strategic priorities which, inter alia, deliver the provision of infrastructure for energy[7].

8.5 The High Peak Local Plan 2016:

8.5.1 The new High Peak Local Plan was adopted by the Council on 14 April 2016. The main thrust of the Local Plan Strategic Objectives, Spatial Strategy and associated policies is the promoting of sustainable development designed to deliver a level of growth that both underpins and enhances the quality of the economic base within the Borough whilst being sensitive to the high quality landscape of the area, the broader environment including climate change, and the welfare of the wider community. As such, the Plan focusses principally on directing where and how built development, whether residential, industrial, commercial or leisure orientated, should be delivered and to what standard. No specific attention is given to "sui generis" landuses of the type applied for here which have specific locational requirements (proximity to mains grid substation.)

8.2.2 It does however, acknowledge the importance of "*supporting proposals that help to deliver the areas of economic focus and strategic priorities of the Local Enterprise Partnership"* (Policy S4), and supporting the needs of local businesses and employers and in particular "*providing for the strategic enhancement of the energy and utility networks…necessary to serve the development needs of the Plan Area*" (Policy CF3).
Such development must naturally comply as far as possible with relevant planning policies, notably in the subject case policies EQ2 and EQ3.

8.2.3 The emphasis applicable to the proposed development in terms of the delivery of the Local Plan Strategy and in particular, Policy S4, is that in complying with Policy CF3, it will enhance the energy infrastructure network and thereby support the development which "*contributes towards the creation and retention of a wide range of jobs"* (Policy E1) and "*supports the sustainable growth and diversification of the local economy".* This is particularly the case given its proximity to the allocation of additional employment land at Waterswallows Industrial Estate, where it can be expected that new development would place additional strain on the grid.

8.2.4 In more general terms, the proposed development is vitally important to the health and security of existing businesses in the Borough, which generate the wealth and employment upon which the local economy is based, that they enjoy security of energy supply and that the acknowledged risk of supply interruption is reduced as far as reasonably possible. For instance, if Nestle or Tunstead Quarry were to suffer power outage, it would cause serious and costly interruption to their businesses.

8.2.5 The site falls outside any defined settlement boundary or sites allocated for development and thus, although it cannot reasonably be claimed to be rural in character, it technically falls within the ambit of Policies E1 and EQ3. Policy E1 acknowledges the need for development within the "countryside" to be supported *where a rural location can be justified and subject to wider Local Plan policies to maintain an appropriate balance between the Local Plan objectives to both support the local economy and protect the environment.* The proposed development fulfils this need in the terms set out, given its strategic value to

[7] Para 156

the delivery of the Local Plan Aims and Objectives and the locational constraint of needing to be in close proximity to a National Grid substation with capacity to accept a connection.

8.2.6 It is also considered to be compliant with Policy EQ3 insofar as it is a previously developed (brownfield) site and does not have an adverse impact on the character or appearance of the area, and in particular does not impact on the quality or setting of the Peak District National Park.

8.2.7 It is also compliant with Policy EQ2 which requires that development should be sympathetic to the landscape character of the area, defined in this location by the Derbyshire Landscape Character Assessment as Plateau Pastures. The proposed site itself, being ex-quarry land and industrial in character, displays no features associated with this designation, nor will its proposed use have any impact, visually, functionally or in biodiversity terms, on the integrity of the landscape character of this part of the County.

8.2.8 The site falls within the Buxton Sub Area (Policy S7) the prime strategic aim of which is to support local businesses and employers and the concomitant benefits that sustainable economic activities can deliver to the Buxton economy. As referred to above, this development would provide vital energy infrastructure support to such businesses and thereby contribute to the successful delivery of the Buxton Sub Area strategy.

8.2.9 Environmental impact is covered by Policy EQ6, which requires development to achieve a satisfactory relationship with neighbouring properties in terms of noise, visual and other forms of environmental impact. The proposals have been assessed in detail in this context, and it can be safely concluded that that any such impact is almost entirely absent.

8.2.10 In terms of Policy CF6 relating to Highways, there is likewise no issue with highway network capacity or safety given the very low level of vehicle journeys generated by the proposed use.

8.2.11 Overall, the circumstances associated with the application area are such that the applicant believes that the proposal can be accommodated within the constraints of the Development Plan policies.

The role of STOR generation, notwithstanding its use of natural gas fuel, in the Government's and National Grid's campaigns to ensure the impending forecast shortfall in electricity generating capacity in the UK is made good, places the application firmly in the category of strategically important development which planning authorities are required to support in both the public and the national and local interest provided there are no overriding environmental concerns.

The approval of the application would be a positive step towards meeting this challenge.

APPENDIX 1 – TECHNICAL REVIEW

1. The Facility
   The generation facility comprises the following equipment packages:

   - 11 Containerised gas generator sets rated at 2MW each;
   - 6 electrical power transformers;
   - 1 Containerised Switchgear and control facility;
   - 2 Distribution Network Owner Interface buildings (Metering Substations).

- 1 gas cabinet

The proposed development will use the latest gas engine technology. The engines will be certified to be compliant with the US EPA Tier 3/4 requirements the most stringent in the world.

In order to comply with increasingly tough emissions standards worldwide, the engine manufacturer is required not only to substantially reduce emissions of particulate matter (PM), but also emissions of nitrogen-oxides. The MTU engines are the latest development in the application of high-tech control in the field of exhaust emissions.

In addition each engine will come with a full Emission Control Warranty from the manufacturer as per the US EPA emissions requirements

The technology proposed is the Best Available Technology (BAT) for the purpose of rapid start standby generation and being connected to the network at the point of use offers demonstrable efficiency improvements of 20% to 33% over non distributed current standby generation.

As described above the generators are in their individual soundproof containers designed by the generator manufacturer's acoustic engineers. Within the generation site compound the generators themselves are mounted on anti-vibration skids that ensure that there is no sound transmission through the ground. The units' silencers and exhaust outlets will be mounted on the ground to reduce the propagation of noise.

As with other installations of the type proposed by PPCL, the site will be unmanned and operated remotely by National Grid from their offices at Warwick via the PPCL head office.

As an unmanned site there is no need for permanent lighting. The only time that lighting is operated is when an engineer is on site in low light conditions and this will be subject to activation by the engineer as he enters the site. The only other lighting on the site is the security lighting and this is only activated on intruder alarm conditions. The lighting is provided to allow the contracted security company to undertake visual inspections under low light conditions. The lighting systems and methodology proposed by PPCL avoids unnecessary light pollution to the immediate and adjacent areas within which the proposed generation facility compound sits.

2. Electrical connection

The proposed generation facility is within c600 m of an existing electrical sub-station on Waterswallows Road and it is proposed that the an electrical connection is made to an existing underground power line that runs in the verge on the south side of Waterswallows Lane c 25m from the proposed Metering Substations on site.

The location of the proposed electrical connection and the associated connection activities will not require any road closures of other interference with traffic along Waterswallows Lane.

3. Safety

As PPCL is supporting the National Grid, the site at Waterswallows will be generating electricity at high voltage and public safety and security is of the highest priority.

The proposed development at will be sited behind 4.5m high timber acoustic fence with the appropriate signage to adhere to the strict current UK Safety Legislation where the Health and Safety Executive is the custodian of the regulations.

A security company will be appointed to ensure that no unauthorised person enters the site and to ensure community safety is maintained. The security company will monitor the site twenty-four hours a day, seven days a week basis. The security company engaged by PPCL to provide security services will have a level of expertise that will meet the requirements of National Grid plc

4. Operations:

The only operational activities at the site will be periodic visits by mobile engineers and Distribution Network Owner personnel.

The existing access and proposed internal access road will facilitate assess and egress to the site such that no vehicle will be required to stand or manoeuvre on the public highway. Additionally, parking for the mobile engineer will be provided within the application site.

The site at Waterswallows will operate autonomously.

5. Construction Activities

The ground works element of the construction phase will take approximately 4 weeks with the electrical installation taking a further 6-10 weeks. The total construction period will be c. 14 weeks.

The installation of the generating and ancillary equipment will be undertaken by approved and experienced contractors utilising the necessary construction and installation plant and equipment. A mobile crane will be required to offload the electrical equipment onto pre prepared foundation slabs. It is expected that the equipment offloading process will only take a maximum period of two weeks. This crane will not be required to stand on the highway.