BUXTON POWER LIMITED

PLANNING APPLICATION FOR THE

CONSTRUCTION OF A 16MW

FLEXIBLE ELECTRICITY GENERATION UNIT

FOR SHORT TERM

OPERATIONAL RESERVE (STOR) CAPACITY AT

WATERSWALLOWS ROAD, BUXTON

NOVEMBER 2013

1. Executive Summary

This application is for the development on 0.25 hectares of established brownfield industrial land at Waterswallows near Buxton of a 16mw Flexible Electricity Generation unit for Short Term Operational Reserve capacity (STOR).

Such development forms part of the UK's essential energy generation strategy for the management of the shortfall in energy generation capacity predicted to arise within the next 2 years 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 (diesel) 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.

They 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.

The proposed site has been chosen as the applicants believe it uniquely (in the High Peak area) 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 involved is sited within an established industrial area 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 such policy. The possible exception is the local policy relating to industrial development in the "open countryside", although it can be argued that the development could be considered 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.

2. The Application

This planning application by Buxton Power Ltd (Buxton Power) 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 and the following Drawings:
Dwg No BP1: Location (Aerial) NTS
Dwg No BP2: Application Area 1:500
Dwg No BP3: General Arrangement 1: 500
Dwg No BP4: Section A-A' 1:100
Dwg No BP5: Viewpoint A 1:100 (@A2)
Dwg No BP6: Viewpoint B 1:200 (@A2)
Dwg No BP7: Switchgear Container elevation NTS
Dwg No BP8: Generator detail NTS
Dwg No BP9: Transformer container NTS
Dwg No BP10: Metering Substation 1:100 (@A3)

Dwg No BP11: Palisade fencing and gate detail NTS

Drg No BP12: Acoustic fence and gate detail NTS

Dwg No BP13: Fuel Tank detail NTS

A pre-application meeting was held with the Principal Planning Officer on 16 January 2013. In response to a Screening Request made on 05 February 2013 under Para 5 of the Environmental Impact Regulations 2011, a Screening Opinion was issued on 09 April 2013 confirming that the development does not require an Environmental Impact Assessment or Statement to be carried out.

3. Background

In recent months, much publicity has been given to the impending electricity supply crisis, with possible power cuts being forecast by the end of 2014. This is due to the decline in the amount of capacity "headroom" available to the National Grid to meet peak demand as a result of the enforced de-commissioning of coal-fired power stations. This crisis sits alongside the longer term structural problem associated with devising a wider strategy for meeting the energy demands of the UK over the next 30 years as a result of the above decommissioning and the closure of much of the UK's existing nuclear generating capacity.

STOR is one of a number of initiatives aimed at enabling the industry to meet both the immediate and longer term threats described above.

Specifically, it is authorised by the Department for Energy and Climate Control (DECC) and operated by National Grid (NGT) 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, NGT needs to be able to call for "instant" power[1] in the form of generation to be able to deal with actual demand being greater than forecast demand at

[1] NGT can call upon their capacity at short notice (2 minutes) to feed power into the grid for such, generally limited, period as it is required.

critical times of day (generally the peak morning and evening periods), and plant breakdowns.

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

However, it is also part of the wider and longer term industry strategy, supported by Government via their "Capacity Market" initiative, to be set up under the Government's Market Reform Act due to be enacted in 2014. This initiative is designed to make good the acknowledged energy deficit that is forecast to arise within the next 2 years and persist for at least the next 10 years as a result of both rising demand, the 20% loss of existing capacity as a result of the decommissioning of coal-fired and nuclear stations over that period and the long lead time involved in their replacement.

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. There is an increased risk to security of energy supplies towards the end of the decade as a fifth of our capacity is set to close and more intermittent (wind) and inflexible (nuclear) generation will be built up over time to replace it. OFFGEN and National Grid will forecast where there could be shortages in supply, and if needed, auction for capacity in supply in advance to ensure that we have enough energy backup to meet consumer demand".

It is anticipated that owners with either existing or potential STOR facilities (the latter being with, inter alia, the requisite planning permission) will be eligible to enter this auction process, which is expected to take place in September 2014. It is expected that successful bidders will be awarded a 15 year contract by NGT.

STOR installations are flexible units (they can be brought on line within 2 minutes), 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 sufficient capacity for the export of electricity. There are relatively few such locations in the country.
Buxton Power's owners have examined a number of such locations in the High Peak area, none of which had sufficient power export capability.
In terms of the scale of generation, the owners also consider that the time taken to get approvals from all the necessary authorities, including the Infrastructure Planning Commission (IPC) for STOR generators larger than those proposed for Buxton Power 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 one designed to meet the urgency of the situation and that the site at Waterswallows is the only one suitable in the High Peak area.

Whilst the units use fossil fuels, the amounts are relative small, 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.
As well as supporting the national electricity supply system, Buxton Power would also provide additional security of electricity supply to the domestic and industrial consumers in the Buxton and High Peaks area.

The facility proposed by Buxton Power Limited at the Waterswallows Road 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.

4. Site location and history:

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

Dwg No BP1 shows the Site 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 manifestly a brown-field site forming part of the now exhausted and unrestored Waterswallows quarry. It is currently disused, having until recently been used as an informal open repository for recovered and recycled masonry stone.

Immediately opposite the site is the Waterswallows Industrial Estate (formally 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 BP2 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 and slightly below the level of the junction between Waterswallows Lane and Waterswallows Road to and from which it will gain access. It is c 0.25 hectares, broadly rectangular in shape and is bounded on the west by Daisymere Lane, a minor largely unsurfaced "green lane" serving as a secondary access to Daisymere Farm and Lock Iron Cottages. To the north is Waterswallows Lane/Road and to the east and south lies the now disused Waterswallows Quarry.

The land is well screened from the west by a low bund and a mixture of mature ornamental evergreen and indigenous broadleaf trees and from the south and east by the higher ground of the ex-quarry landform.

5. Development description

Dwg No BP3 contains details of the general arrangement of the development. This will comprise the levelling, compacting and landscaping of the site to accommodate 8 x 2MegaWatt (MW) diesel powered generators (each within its own acoustic container and mounted on individual concrete rafts), 4 x 4,000 KVA transformers (in steel pens), 3 x 40,000litre fully bunded fuel tanks, 1 high voltage electrical switchgear container and a pitched roof metering substation constructed in brick and textured GRP.

Electrical cabling to the grid connection point immediately outside the site (in Waterswallows Lane) will be laid underground from the on-site metering substation.

A small amount of excavation and redistribution (within the site) of quarry waste material will be required to provide a level site.

A 4m wide internal sealed surface access road will be constructed along the western side of the installation, with a stone filled drainage channel to direct surface water to the proposed discharge point.

The site as a whole will be secured and gated by a 2.4m steel palisade perimeter fence. The generator compound will be set towards the southern end of the site and enclosed on its western and northern sides by a 4m high acoustic fence.

The gap in the western boundary bund outside the perimeter fence will be closed with on-site arisings, soiled and planted and the existing tree and shrub screening along the western boundary reviewed and strengthened as may be agreed via an appropriate planning condition.

Other than traffic associated with its construction, vehicle movements will be confined to periodic fuel deliveries (the number would depend on the usage of the facility by National Grid but will be unlikely to exceed 50 movements per annum) and routine maintenance visits.

Current estimates are that the facility will be utilised for c 150 hours per year, of 1-2 hour duration generally during periods of morning and/or evening peak demand.

The site will not be manned. It will be managed/supervised by the landlord from his premises in Waterswallows Industrial Estates immediately opposite and adjacent.

The size of the site is such that run-off drainage will be minor. Subject to agreement with the Environment Agency, run-off will be directed, if appropriate via an oil interceptor, to a point in the north western corner of the site from where it will be discharged to the existing storm water drainage system via the existing infrastructure.

Dwg Nos BP7-13 provide elevational and technical details of the various plant elements within the site – the proposed Switchgear Container, Generator unit, Transformer container, Metering Substation, Palisade fencing and gate, Acoustic fence and gate and Fuel Tanks.

6. Environmental Impact:

6.1 Visual: Dwg Nos BP3, 4, 5 and 6 illustrate the likely appearance of the installation from various points outside the site. From the west, the closing of the gap in the bund and the proposal to provide enhanced planting will ensure that the already substantial level of screening of the site will be improved. None of the operational plant or equipment will be visible by virtue of the acoustic fence.

From the south and east, visibility of the site is minimal.

From the north, the proposals represent a substantial improvement on the existing situation. Being set back from and slightly below the road, with the generation equipment hidden behind the acoustic fence, they will also be discrete.

6.2 Noise: Great care has been taken to establish the potential of the proposed development to impact adversely on existing sensitive receptors. These have been identified as the residential properties of Breezemount Farm c 50 to the north and Nos 1 and 2 Lock Iron Cottages c 150 m to the south. A detailed noise report has been commissioned and is attached to the application as Appendix 1

It concludes that, provided a 4 m high acoustic fence is in place in the position shown on Dwg No 3, the proposed site layout and the specification and design[3] of the generator sets is such that noise levels experienced by these two closest noise sensitive receptors will not exceed existing background levels during either the day or the night.

6.3 Traffic

The access to and from the site onto the Waterswallows Lane/Road junction has been used by HGVs and light vehicles for many years without incident. Visibility in all three directions is good and traffic speeds are low as vehicles approach the bend and the junction.

Other than traffic associated with its construction, vehicle movements will be confined to periodic fuel deliveries (the number will depend on the usage by National Grid of the facility

[3] The generator set design has been modified to reduce the noise output level to a value well below the output of conventionally designed units. The principal change has been to increase the size of the exhaust silencer box and mount it on the ground: see Plan No 9

but will be unlikely to exceed 50 movements per annum) and routine 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.

6.4 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 heavily compacted and the volume of run-off from the site following development will not increase significantly. The formalisation of run-off management by connection to the existing surface water drainage system represents an improvement on the existing unregulated situation.

6.5 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. 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 2005 High Peak Local Plan (Saved Policies). The latter is in the course of review via the Draft Local Plan for which the Options (for the Buxton Area) Consultation process has recently closed.

7.1 The NPPF:

This reaffirms the established principle of the presumption in favour of development unless material considerations suggest otherwise[4]. In the context of such development being

[4] Paras 11 and 14

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[5]. It requires Local Planning Authorities to support development which meets the needs of business and the economy[6] and encourages the use of brown in preference to green field land[7].

In terms of energy related development, the emphasis is on providing positive support for alternative and renewable sources rather than the use of hydrocarbons. However, 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.

Local Planning Authorities are also encouraged to identify strategic priorities which, inter alia, deliver the provision of infrastructure for energy[8].

7.2 The High Peak Local Plan 2005 (Saved Policies):

The saved policies are broadly consistent with the NPPF guidance, in particular seeking to guide development towards underused or derelict "brownfield" land[9]. General Policies (GD 4-6) deal with minimisation of impact on the local area by the use of careful design and the avoidance of impact on general amenity. The proposals have been designed with these policies in mind.

The apparent designation of the site as "Open Countryside", for which the policy context set out in Chapter 3 is relatively restrictive, is anomalous with its character and the long established industrial nature of both its own and that of the adjacent and surrounding land

[5] Para 7

[6] Paras 19, 20 and 21

[7] Paras 17 and 111

[8] Para 156

[9] Para 2.28

uses. However, development in the "open countryside" which is considered "appropriate" will attract a presumption in favour of approval, and reference is made to such types of development including those "which can only take place where the resource is available"[10]. The close proximity of a substation referred to in Para 3 hereof is a key factor in this context.

In addition, the applicant believes that the development is compliant with the provisions of Paras 3.4, 3.5 and 3.7 which encourage the re-use of derelict, despoiled or disused land (Para 3.4), is sympathetically integrated into the landscape (Para 3.5) and, as the site does not fall within either the Green Belt or the Special Landscape Area, the probability that the site should be classed as "white land" (Para 3.7)[11].

The development is also compliant with Policy 9/OC 1 in that it is not at variance with the criteria set out therein: viz not detracting from the open character of the countryside, not generating significant traffic or people movements and not adversely impacting on the character or distinctiveness of the countryside.

The site is not "conspicuous from the Peak District National Park" and therefore is not at variance with Policy 13/OC5

Policy 15/OC8 requires that the SSSI within Waterswallows Quarry should be protected from any development which may be harmful to it. Discussions with Natural England have already confirmed that the proposed development will have no impact on this feature, which is solely designated for the nature of its geological exposure.

Chapter 7 dealing with Employment and Business is prefaced by an implicit acknowledgment that the plethora of recent and ongoing major developments in Buxton will create further pressure for the provision or extension of energy infrastructure and security. This theme is picked up again in the Draft Local Plan Options document.

Policies 56/EMP 4 and 57/EMP5 seek to restrict such development to Primary Employment Zones (PEZ) or to established industrial sites. The proposed site lies within 50m of the Waterswallows PEZ and forms part of what is still an established industrial site. It also complies with the qualifying wording of Policy 57/EMP5 which requires that it should "not

[10] Para 3.3/Policy OC1

[11] This designation carries a presumption that the land will remain in its existing use.

materially impact its neighbours" and that it should be "substantially screened in a sympathetic manner".

The proposed development also complies with Policy 59/EMP 7 (which deals with applications for open storage and processing outside PEZs) which requires buildings associated with employment development in the countryside to be both "essential and appropriately sited and designed" and "have adequate site access and not increase traffic significantly".

7.3 The Draft Local Plan:

Whilst of relatively little weight due to its early stage of formulation, the Options Consultation document identified one of the key challenges facing the Borough as being the provision of infrastructure to support its growth targets and aspirations for business, employment and housing. It also acknowledged the limited supply of brownfield sites in the Borough.

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

Whilst it also postulated that there is more land identified in the Borough for business and industry than appears to be necessary over the Plan period, it also emphasised the need to ensure that provision is made for adequate infrastructure capacity to be developed.

APPENDIX 1 – TECHNICAL REVIEW

1. The Facility

The generation facility comprises the following equipment packages:

- 8 Containerised diesel generator sets rated at 2MW each;
- 3 double skinned bunded oil storage tanks;
- 4 electrical power transformers;
- 1 Containerised Switchgear and control facility;
- 1 Distribution Network Owner Interface kiosk (Metering Substation).

The proposal is for a series of small generators, each in its own soundproof container. These generators will operate on diesel fuel, as mains natural gas is not available in the area.

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.

The proposed fuel will be stored in double bunded tanks that are located as shown on the site plan. In addition there will be smaller double-skinned day tanks within the container of each generator.

The fuel is held within the bulk tanks and the individual integral generator base tanks. Bulk storage comprises 3x40,000 litre steel bunded fuel tanks feeding into a 50mm steel screwed manifold pipe running in a duct around that area of the site occupied by the generators. The bulk fuel tank is Environment Agency approved, of steel construction with integral bund and come with lockable fuel fill cabinet with standard 2" fuel filling connection suitable for fuel delivery by bulk fuel road tanker. The fill point comes with a tank contents gauge and overfill alarm to prevent inadvertent overfill by a delivery driver.

Individual generator fuel tanks are fully bunded steel construction to Environment Agency approved design.

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 Buxton Power Limited, the site will be unmanned and operated remotely by National Grid from their offices at Warwick via the Buxton Power 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 Buxton Power Limited 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 500 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 100m from the proposed Metering Substation 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 Buxton Power Limited 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 2.4m high metal security fencing 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 Buxton

Power Limited to provide security services will have a level of expertise that will meet the requirements of National Grid plc

4. Operations:

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

The existing site access will facilitate assess and egress to the site and additionally accommodating parking for the delivery of fuel which is transported in tankers. Parking for the mobile engineers will also be provided within the site.

Fuel deliveries will not involve any obstruction of the public highway.

The tanker will pull off the road and park at the front of the compound for easy access to the tanks on the site – fuel lines to each storage tank will utilise a purpose designed fuel manifold arrangement to allow filling of the individual units. The manifold will be of an all welded construction to avoid potential leaks. This design will ensure that the fuel tanker will not have to physically enter or leave the generation site but will in a forward gear to avoid turning and blocking the existing access.

The tanker delivery arrangements will enable other car users to enter the site and follow current arrangements.

The site at Waterswallows will operate autonomously. Delivery of fuel will take place as required (anticipated to be less than once per week) but never out of normal business house. Business hours are taken as 9am to 6pm Monday to Friday.

5 Construction Activities

The ground works element of the construction phase will take approximately 12 weeks with the electrical installation taking a further 6 weeks. The total construction period will be 18 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.