

Item Number: 12
Application No: 22/01322/MFUL
Parish: Scampston Parish Council
Appn. Type: Full Application Major
Applicant: Mr Nigel Voaden (Gravitricity Limited)
Proposal: Retention of previously developed land and an existing vehicular access onto the B1258 Malton Road to accommodate the installation of a below ground vertical shaft, an above ground modular plant building and other development ancillary to gravitational energy storage for a temporary period of up to 25 years followed by decommissioning and restoration
Location: Third Energy UK Gas Ltd Malton Road West Knapton Malton North Yorkshire YO17 8JF
Registration Date: 1 December 2022
8/13 Wk Expiry Date: 2 March 2023
Overall Expiry Date: 8 February 2023
Case Officer: Kevin Riley **Ext:** 43269

CONSULTATIONS:

Yorkshire Water Land Use Planning	No objection
National Highways	No objection
Highways North Yorkshire	Recommend Conditions
Environmental Health	Recommend Conditions
NYCC Archaeology	No objection
NYCC Ecology	Recommend Conditions
Trees and Landscapes Officer	No objection
V of Pickering Internal Drainage Board	No objection
NYCC Rights of Way	No objection
Economic Development	No comment received
Health and Safety Executive	No objection
Building Conservation Officer	No objection
Scampston Parish Council	No comment received
Conservation Officer	No objection

Representations: None received

SITE:

The proposed development site is the former Knapton Generating Station which is in the open countryside approximately 1km north east of East Knapton and 2.2km south west of Yedingham. Knapton gas fired power station, which was installed in 1995, is no longer in operation and is being dismantled. Access to the site is gained from the B1258 to the west which connects to the A64 to the south. The site is enclosed by mature, dense tree plantations on all sides. The railway line runs parallel to the northern boundary. Bridleway number 25.81/8/1 follows a generally north-south alignment approximately 330 metres west of the site and crosses the site access road.

The nearest residential receptors are those at Ochre Farm, Difford Farm, Guild Farm, Mill Grange and Hartswood Farm with the closest being Ochre Farm to the north east at a distance of approximately 550 metres.

There are no heritage assets within 1km of the site. The Grade II listed church in East Knapton is 1.5km south west of the site and the Registered Park and Garden associated with the Grade II* listed Scampston Hall is, at its closest point, approximately 2km from the site.

Land adjacent to the north of the site benefits from an extant permission for the development and operation of a Battery Energy Storage System Standby Generation Facility, which has not yet been implemented.

The proposal site itself also benefits from an extant permission for a natural gas-powered peaker generation facility which has not yet been implemented. That development could not be implemented if the development currently proposed is granted and implemented.

Site planning constraints

Archaeologically sensitive area
Gas pipelines
Bridleway within Red Line
Outside Development Limits

PROPOSAL:

The proposal is for the retention of previously developed land and an existing vehicular access onto the B1258 Malton Road to accommodate the installation of a below ground vertical shaft, an above ground modular plant building and other development ancillary to gravitational energy storage for a temporary period of up to 25 years followed by decommissioning and restoration.

The Proposal comprises a series of consecutive phases that adopt a logical progression from enabling works, through shaft construction and operation to decommissioning and restoration.

Phase 1: Enabling Works

- Site Investigation Works.
- Set-up Construction Compound & Laydown Area.
- Install Temporary Piling Rig & Crane Platform.
- Mobilise Piling Rig, Crane & Plant.

Phase 2: Below Ground Works

- Foundation Setting for the Winch & Headworks.
- Shaft Installation - Stage 1: (Surface to 60m-bgl) & Casing.
- Shaft Installation - Stage 2: (60m to 120m-bgl).
- Demobilise Piling Rig, Cranes & Plant.
- Mobilise Lining Crane.
- Shaft Installation - Stage 3: Lining & Grouting.
- Demobilisation Lining Crane.

Phase 3: Above Ground Works

- Install Winch & Headworks Building Bases.
- Install Winch & Headworks Buildings.
- Internal Mechanical & Electronic Fit-out.
- Hard & Soft Landscaping.
- System Testing & 1st Export of Electricity.

Phase 4: Operation

- Electricity Storage & Generation.

Phase 5: Decommissioning & Restoration

- Decommission the Shaft.
- Removal of Surface Equipment.
- Site Restoration to Original Stone Hardstanding.

The Indicative Timeline of Works shown in the Planning Statement & Environmental Report estimates that the site could be constructed within 12 months and become operational by 2025.

The main structural components of the proposal are a vertical shaft of approx. 2.4m diameter excavated to a depth of 120m below ground level together with above ground buildings that accommodate a winch, a head-frame gantry, the weights and ancillary electricity transmission equipment. The above ground plant will be housed in the “Headshave Gear Building” (12 metres high, 10 metres wide, 4 meters deep) and the “Winch Gear Building” (5 metres high, 13 metres wide and 4.5 metres deep)

The proposal is a prototype designed to provide gravity assisted long-duration energy storage. Weights suspended within a shaft become a store of potential energy which can then be converted to electrical energy at periods of high demand, as the weight is dropped and its cable turns a generator. The weight is not raised and lowered continually but only when the grid requires a backup surge of energy.

The facility would have an installed capacity of 1MW and it would be in a continuous state of readiness. Weight ‘drop’ is ‘on-demand’ and the system can be made operational in under 1 second (unlike other types of energy storage/generation which sometimes need ‘warming-up’, require the sun to shine or wind to blow).

The timing and number of drops per day will vary. On some days the system will be inactive; on others there could be multiple drops and if maximum power is needed, each drop could complete within 3 minutes. However, it’s likely that drops will be timed to match the predictable periods of peak electricity demand (07:00hrs-09:00hrs & 17:00hrs-19:00hrs) after which the weight would be recovered using surplus renewable energy during off peak periods to re-set the system.

The primary purpose of the technology will be to balance the grid, matching demand with supply more accurately and providing a variety of other grid balancing services which will make the grid work more efficiently. The applicant states:

“the bigger picture is that our current electricity supply is still heavily dependent on fossil fuel generation and almost all our essential grid stabilising services are provided by gas burning power plants. To fully switch to renewable sources of energy we require an array of different storage options with different characteristics to fully cater for the complex grid requirements. Gravity energy storage is very well suited to fulfil some of these requirements and is forecast to form an important part of the energy production and storage landscape of the future”.

RELEVANT PLANNING HISTORY:

14/01330/FUL - Erection of a 2.7m high security fence and 2.4m high remotely operated cantilever entrance gate. Approved 26.01.2015

20/00926/FUL - Installation and operation of a natural gas-powered (49.9MW) peaker generation facility with ancillary infrastructure. Approved 20.11.2020

21/01220/FUL - Development and operations of a Battery Energy Storage System (BESS)(~100MW) Standby Generation Facility with ancillary infrastructure. Approved 14.10.2021

22/00636/PREAPP - Retention of Knapton generating station to accommodate the installation of a below ground vertical shaft, an above ground plant building and other development ancillary to gravitational energy generation and storage. Closed 19.08.2022

22/00849/SCO - EIA Scoping request for the retention of previously developed land and it's existing vehicular access onto the B1258 Malton Road to accommodate the installation of a below ground vertical shaft, an above ground modular plant building and other development ancillary to gravitational energy generation and storage. Closed 20.09.2022

RELEVANT PLANNING POLICY

Ryedale Local Plan Strategy 2013

Under Section 38(6) of the Planning and Compulsory Purchase Act 2004 planning authorities are required to determine each planning application in accordance with the planning policies that comprise the Development Plan unless material considerations indicate otherwise. The relevant Development Plan policies for the determination of this application are:

- Local Plan Strategy - Policy SP1 General Location of Development and Settlement Hierarchy
- Local Plan Strategy - Policy SP6 Delivery and Distributing of Employment Land and Premises
- Local Plan Strategy - Policy SP9 The Land-Based and Rural Economy
- Local Plan Strategy - Policy SP12 Heritage
- Local Plan Strategy - Policy SP13 Landscapes
- Local Plan Strategy - Policy SP14 Biodiversity
- Local Plan Strategy - Policy SP16 Design
- Local Plan Strategy - Policy SP17 Managing Air Quality, Land and Water Resources
- Local Plan Strategy - Policy SP18 Renewable and Low Carbon Energy
- Local Plan Strategy - Policy SP19 Presumption in Favour of Sustainable Development
- Local Plan Strategy - Policy SP20 Generic Development Management Issues

National Planning Policy Framework

- Section 6. Building a strong, competitive economy
- Section 11. Making effective use of land
- Section 14. Meeting the challenge of climate change, flooding and coastal change
- Section 15. Conserving and enhancing the natural environment

REPRESENTATIONS:

No third party representations have been received.

APPRAISAL:

Main issues:

- The principle of the development in the open countryside
- Impact on the character of the landscape
- Impact on the amenity of neighbouring development

Principle of the Development

Local policy SP1 sets out the Council's policy for the general location of development. The application site is located outside the development limits of the towns and villages identified in the policy as suitable for development. However the policy provides that development that is necessary to support a sustainable, vibrant and healthy rural economy and communities may be permitted subject to compliance with the other policies of the Local Plan.

Local policy SP6 provides that in the open countryside new building and expansion land for existing major employers/established businesses will be supported.

Local policy SP9 states that Ryedale's land-based economy will be sustained and diversified with support for appropriate new uses for land including flood management and energy production related research.

Local Policy SP18 provides that developments that generate renewable and/or low carbon sources of energy will be supported providing that proposals can be satisfactorily assimilated into the landscape or built environment and would not impact adversely on other matters regulated by the Local Plan.

This is a proposal for gravity assisted long-duration energy storage, providing renewable, low-carbon energy. The proposal would occupy a small footprint within the previously developed operational compound of the Knapton Energy Park. As such the principle of the proposed development at the site is considered to be in accordance with Local Policies SP1, SP6, SP9 and SP18.

Impact on the landscape

The application site is completely encompassed by a relatively deep band of mature trees. At the time of the case officer site visit, in early February, the trees were not in leaf but nevertheless still provided good screening of the site.

The tallest above ground structure proposed is the headsheave gear building which measures 12 meters high by 10 metre wide by 3.5 metres deep. Due to these relatively modest dimensions the proposal will not extend above the tree canopy to any significant degree.

The applicant has provided a landscape and visual impact appraisal of the proposal which effectively demonstrates that the proposal will have a very minimal effect on the landscape. The Council's Landscape Officer has stated no objection to the proposal, commenting;

“the proposal is expected to have minimal impact visually and it appears that no tree removals are required to facilitate development. The site is sufficiently screened and the existing perimeter security fencing will ensure the trees are sufficiently protected through the development process”.

Because the proposal is contained entirely within the existing developed area of the site compound, the existing tree belt will be affected nor any other landscaping lost as a result of the development.

Due to the isolated, rural location, a condition to control lighting at the site is considered necessary to limit the impact of the proposal on dark skies and on wildlife, from light pollution.

For the above reasons proposal is considered to be in accordance with policies SP13 and SP16 in terms of its impact on the landscape.

Impact on the amenity of neighbouring property – Noise Assessment

The nearest dwellings are those at Ochre Farm, Difford Farm, Guild Farm, Mill Grange and Hartwood Farm with the closest being Ochre Farm to the north east at a distance of approximately 550 metres. Due to the significant distance of the site from the nearest dwellings, it is only the issue of noise arising from the operation of the plant that is a significant consideration with regard to impact on amenity.

The applicant has submitted a Noise Assessment which advises that during the operating phase of the project, the plant will be either generating or storing energy, or doing neither in which case equipment will be in standby mode and will be intrinsically quiet.. The assessment concludes that:

“The cumulative assessment identifies one other relevant development in the area, and that is the adjoining Battery Energy Storage Scheme. The noise Impact from that scheme is advised to be at a level, when added to the proposed Gravitational Energy Storage Scheme, would still result in a cumulative noise impact that was low”.

The Environmental Health Officer has commented that whilst she has some concerns regarding the assumptions and assessment of noise from the operation of the plant provided in the noise assessment, she considers that *“due to its remote location and distance from nearby residents, that no material adverse effect will occur, provided the works are carried out in accordance with the noise assessment, and that the predicted levels are achieved”*. The applicant’s recommended conditions are set out in the Planning Statement & Environmental Report - Appendix 2: Noise Impact Assessment - Section 10 and will be attached to the planning permission, if granted, to accord with the recommendation of the Environmental Health Officer.

Subject to conditions to ensure noise levels do not exceed expected levels, the proposal is considered to be in accordance with policy SP20 in terms of impact on the amenity of the local area.

Highway safety

There are no local highway authority objections to the proposed development. However, the Local Highway Authority recommends that a Condition for a Construction Management Plan to be agreed by the Local Planning Authority should be attached to any permission granted.

Subject to the requested condition the proposal is considered to be in accordance with policy SP20 in terms of its impact on highway safety.

Rights of Way

A public footpath and a bridleway cross the site access road. NYCC Public Rights of Way officer states no objection but suggests an informative note on the planning permission, if granted, regarding actions to be taken prior to commencing any development that permanently or temporarily affects a Public Right of Way.

Environmental Impacts

The proposal site is previously developed land.

The applicant has provided an Ecological Impact Assessment (EcIA) of the proposal. The NYCC ecology team has commented:

“We have reviewed the Ecological Impact Assessment (EcIA) which forms part of the Planning Statement and Environmental Report; other environmental matters such as hydrogeology are outside our professional remit and we are unable to comment on these. The EcIA is comprehensive and well-evidenced, and concludes that only minor ecological impacts are anticipated.

Minor ecological risks associated with light, dust and water pollution are identified and appropriate mitigation measures are set out in section 7 of the EcIA. We recommend a Condition to adhere to these.”

Subject to the requested condition the proposal is considered to be in accordance with policy SP14.

It is noted that the applicant submitted an EIA Screening & Scoping request (22/00849/SCO) for the proposal. The Council determined, with regard to Schedule 2 of the EIA Regulations 2017, that the Council is of the opinion that the proposed development falls within the description provided within Schedule 2 paragraph 3(a) 'Industrial installations for the production of electricity, steam and hot water' of the above Regulations. Having taken into account the criteria in Schedule 3 of the EIA Regulations, the characteristics of the proposed development, the environmental sensitivity of the location and the types and characteristics of the potential impact have been assessed and based on the nature, size and location of the development it is considered that the proposed development would not have significant impacts upon the environment. The Council confirmed to the applicant that it is of the opinion that the proposed development is not an EIA development and need not be accompanied by an Environmental Statement.

Impact on Heritage Assets

There are no heritage assets within 1km of the site. The Grade II listed church in East Knapton is 1.5km south west of the site and the Registered Park and Garden associated with the Grade II* listed Scampston Hall is, at its closest point, approximately 2km from the site. Due to these long distances from the site it is considered that the proposal will not have a significant impact on heritage assets and is acceptable in terms of Policy Sp12 (Heritage). The Building Conservation Officer has no objection to the proposal.

Conclusion

The proposed development is considered to comply with national and local planning policy and is recommended for approval, subject to the conditions set out below.

RECOMMENDATION: Approval

- 1 The development hereby permitted shall be begun on or before .

Reason: To ensure compliance with Section 51 of the Planning and Compulsory Purchase Act 2004

- 2 The development hereby permitted shall be carried out in accordance with the following:
 - a. Planning Statement & Environmental Report by Zetland Group dated 30 November 2022, Chapter 3: The Proposed Development, sections comprising:

Phase 1: Enabling Works
Phase 2: Below Ground Works
Phase 3: Above Ground Works
Phase 4: Operation

- b. the approved plans:

Drawing No ZG-GRAV-KEP-WD-PA-01 LOCATION PLAN
Drawing No ZG-GRAV-KEP-WD-PA-02 LOCATION PLAN (SITE OF APPLICATION)
Drawing No ZG-GRAV-KEP-WD-PA-18 GENERATING FACILITY SECTION VIEW
PLAN received 10.02.23
Drawing No ZG-GRAV-KEP-WD-PA-17 GENERATING FACILITY LAYOUT PLAN
received 10.02.23

Reason: For the avoidance of doubt and in the interests of proper planning.

- 3 The permission hereby granted is valid until [25 years from date of permission]; and the development hereby approved shall cease to be used and all above-ground facilities shall be removed and the site restored to agricultural use and/or woodland by:
- i. the [25 years from date of permission]; or
 - ii. the expiration of 18 months from the date of the cessation of electricity generation, whichever is the sooner.

Such restoration work shall be undertaken in accordance with a detailed scheme submitted to and approved in writing by the Local Planning Authority.

Reason: To ensure satisfactory return of the site to its former use after the cessation of electricity generation and to satisfy Policy SP20.

- 4 No development for any phase of the development shall take place until a Construction Method Statement for that phase has been submitted to, and approved in writing by, the Local Planning Authority in consultation with the Local Highway Authority. The approved Statement shall be adhered to throughout the construction period for the phase. The statement shall provide for the following in respect of the phase:
- a. the parking of vehicles of site operatives and visitors
 - b. loading and unloading of plant and materials
 - c. storage of plant and materials used in constructing the development
 - d. wheel washing facilities
 - e. measures to control the emission of dust and dirt during construction
 - f. scheme for recycling/disposing of waste resulting from demolition and construction works

Reason: In accordance with policy SP20 and to provide for appropriate on-site vehicle parking and storage facilities, in the interests of highway safety and the general amenity of the area.

- 5 The development hereby approved shall proceed in accordance with the biodiversity mitigation measures detailed in the Planning Statement & Environmental Report by Zetland Group dated 30 November 2022 - Appendix 5 Ecological Impact Assessment - Section 7 Mitigation Measures. The development shall not be first brought into use unless and until these measures have been completed in full, unless otherwise first agreed in writing by the local planning authority. Thereafter the mitigation measures shall be permanently maintained and retained unless otherwise first agreed in writing by the local planning authority.

Reason: In the interests of nature conservation and to meet the requirements of paragraph 174 of the National Planning Policy Framework 2021 and Ryedale Local Plan Strategy - Policy SP14.

- 6 During the construction phase, the LAeq,16hr, daytime should not exceed 55 dB, and for those activities that have to be undertaken on a 24-hour basis, the night-time LAeq,8hr, should not exceed 42 dBA at the nearest residential receptor. Prior to the commencement of night-time construction activity, a scheme of noise mitigation to address specifically night-time activity, shall be submitted to and approved in writing by the Local Planning Authority. The approved mitigation shall be put in place prior to any night-time operations taking place and shall be retained and maintained for the duration of significant night-time works.

Reason: To ensure the development does not cause significant harm to the amenity of neighbouring land and to meet the requirement of The Ryedale Local Plan Strategy Policy

SP20.

- 7 The noise during normal operations of the development shall not exceed a rating level L_A,_{Tr} of 35dB at the nearest residential property during the night (23:00 - 07:00), when measured and assessed in accordance with BS 4142:2014.

Reason: To ensure the development does not cause significant harm to the amenity of neighbouring land and to meet the requirement of The Ryedale Local Plan Strategy Policy SP20.

- 8 Prior to the installation of any additional external lighting at the site, including lighting for site security purposes, full details shall be submitted to and approved in writing by the Local Planning Authority. The details shall include the position, height, angle of lighting, illuminance level and hours of operation. All lighting shall be installed and maintained in accordance with the approved details.

Reason: In the interests of the reduction of light pollution and to protect the open countryside in compliance with The Ryedale Local Plan Strategy Policies SP16 and SP20.

- 9 The materials and finish to be used on the exterior of the proposed buildings shall be in accordance with the details listed in the application form for the development. No variation of the approved materials shall be undertaken without the express consent in writing of the Local Planning Authority.

Reason: To ensure a satisfactory external appearance and to accord with Policy SP20.

10. Existing landscaping on the site perimeter shall be maintained and protected for the duration of the development. Any trees which require removal in accordance with prudent arboricultural management shall be replaced within the next planting season by trees of suitable species and in appropriate numbers in mitigation of any losses.

Reason: In the interest of landscape and visual amenity in compliance with Policies SP16 and SP20.

INFORMATIVE

1 Rights of Way

i). There is a Public Right of Way or a 'claimed' Public Right of Way within or adjoining the application site boundary.

ii). If the proposed development will physically affect the Public Right of Way permanently in any way an application to the Local Planning Authority for a Public Path Order/Diversion Order will need to be made under S.257 of the Town and Country Planning Act 1990 as soon as possible. Please contact the Local Planning Authority for a Public Path Order application form.

iii). If the proposed development will physically affect a Public Right of Way temporarily during the period of development works only, an application to the Highway Authority (North Yorkshire County Council) for a Temporary Closure Order is required. Please contact the County Council or visit their website for an application form.

iv). The existing Public Right(s) of Way on the site must be protected and kept clear of any obstruction until such time as an alternative route has been provided by either a temporary or permanent Order.

- v). It is an offence to obstruct a Public Right of Way and enforcement action can be taken by the Highway Authority to remove any obstruction.
- vi). If there is a "claimed" Public Right of Way within or adjoining the application site boundary, the route is the subject of a formal application and should be regarded in the same way as a Public Right of Way until such time as the application is resolved.
- vii). Where public access is to be retained during the development period, it shall be kept free from obstruction and all persons working on the development site must be made aware that a Public Right of Way exists, and must have regard for the safety of Public Rights of Way users at all times.
- viii). Applicants should contact the County Council's Countryside Access Service at County Hall, Northallerton via CATO@northyorks.gov.uk to obtain up-to-date information regarding the exact route of the way and to discuss any initial proposals for altering the route.