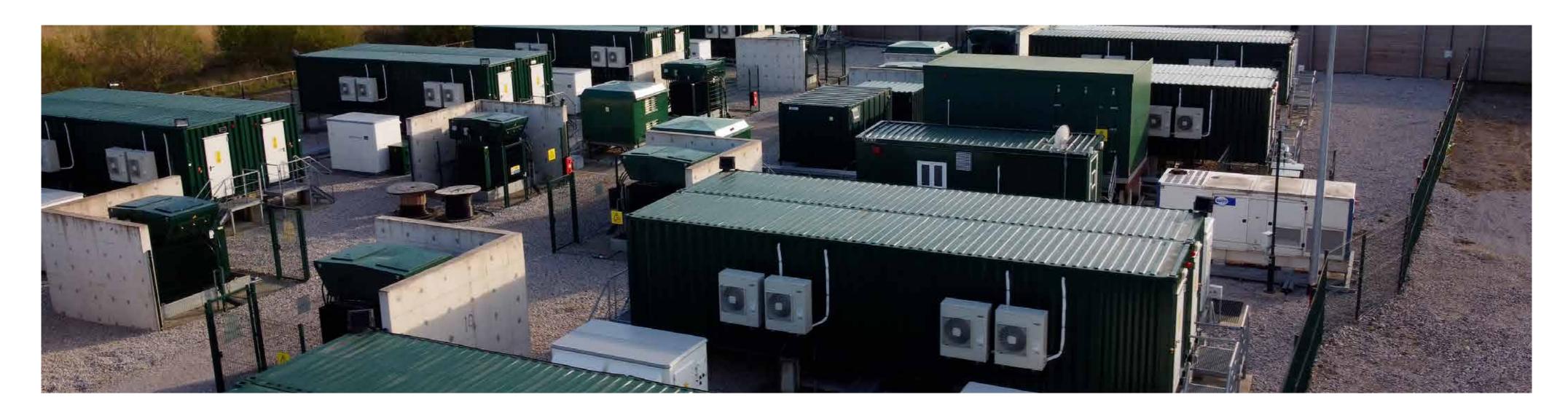
Welcome to our exhibition



Thank you for showing interest in coming to our second consultation about Braxbess Storage's proposed battery energy storage facility, held in conjunction with our planning consultant Pegasus Group.

We hope you find the information interesting and informative.

We are asking people who live and/or work in the area to help us shape the proposals for this site. An initial consultation exhibition was held on 10th October 2023 prior to this second consultation exhibition. Subsequent to this second exhibition and closing of the consultation period, an application will be submitted to the Energy Consents Unit.



We have all felt the impact of the costs of imported gas on our energy bills over the last 12 months. We need to act quicker than ever to achieve Scotland's net zero targets, in the best interests of the Scottish public.

A key part of the ambitious transition to net zero will be our ability to store excess energy when demand is low; to be discharged back to the Grid for use when demand is high. Battery storage systems are **critical** for our path to net zero.

Storing energy is especially important as we increasingly rely on weather dependent generators such as wind or solar panels.

Battery storage enables green technology and produces no emissions or pollution – so we will have enough electricity whatever the circumstance.

It is proposed that the developer Braxbess will connect into the SPT planned Branxton Substation. A planning application for this substation has been submitted by other

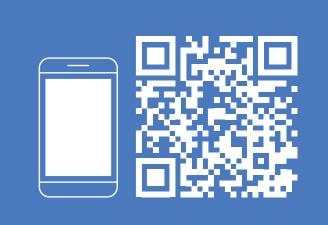
parties to East Lothian Council and is currently under consideration under ref. 23/00616/PM. Proximity to a substation is important, given the manner in which energy is transferred, short connection routes are highly desirable, ensuring efficiency and speed of transmission when required.

In addition to the batteries, the proposed facility will require its own substation to manage the voltage for safe and reliable transmission to connect to Branxton Substation.

We have set out in greater detail the site location plan with its proposed boundaries. As the design of the scheme is still at an early stage, we want to hear your views on our plans.

You can give us your feedback by filling out the forms we have provided today or on the consultation website:

Project Website: www.braxbessstorage.co.uk





Why this site?



The Braxbess development shall be led by EHD who manage over 4GW of renewable energy projects and work alongside a variety of organisations and funders.



INDICATIVE SITE LOCATION PLAN

The Scottish Government has set a target within The Climate Change (Emissions Reduction Targets) (Scotland) Act 2019, to achieve net-zero emissions by 2045, with an initial target of being able to achieve this for short periods by 2025.

Battery storage is becoming crucial to ensure that energy generated by renewables can be stored when it is not required, and then used when it is and to provide power quality services as traditional generation is phased down.

This project will further the progress on local and national net zero targets. East Lothian Council itself declared a Climate Emergency on 27th August 2019, and resolved to lobby, support and work with all relevant agencies, partners and communities to make East Lothian a carbon neutral county as well as aiding the Scottish Government in its commitments.

The substation proposed by others at Branxton is located at a point in the network where renewable generation, including battery storage, can deliver the power quality and resilience we need. This proposed battery scheme is proposed to connect into the proposed Branxton substation which means it can act as an importer and exporter of energy. Locating the project close to the proposed substation ensures a cost effective and viable connection.

Local planning policy from East Lothian Council has played a significant role in deciding where this site should be located.

This site is within proximity to development relating to onshore electrical transmission infrastructure north-west of the site boundary. This could present significant opportunities for renewable energy-related investment to ensure that the best use is made of land and infrastructure in this area.

Policy PROP EGT3:Forth Coast Area of Coordinated Action supports the principle of electricity grid connections on the Forth coast from Cockenzie to Torness in order to facilitate off-shore energy generation, provided certain criteria are met. An Eastern Link Project is proposed by others and will unlock the rich renewable energy capacity of Scotland and support the drive toward our Net Zero targets in Scotland and across the rest of the UK and run from Torness in East Lothian, Scotland to Hawthorn Pit, County Durham, England. This proposal for battery storage is proposed to link into this.



What we showed you last time





Latest Plan







What is being Proposed?



The proposal consists of the construction and operation of a Battery Energy Storage System (BESS), transformers, substations and associated infrastructure. The main component of the proposal will be a number of battery storage units arranged in rows which will be surrounded by a perimeter fence, and other landscape features (such as trees and hedges) to ensure they are less obtrusive.

The applicants have grid agreement of up to 650 MW. This figure will be refined as part of the consultation process and comments received as part of this second round of consultation will influence any future application.

A cable route will be subject to further consideration by SPT and will be subject to a separate application.

Access to the site will be taken from the north east of the site from Barns Ness Terrace. Including the site access, the site is approximately 19.4 ha in size.

The site is to be decommissioned after 40 years when it is no longer operational and restored to its former status.

The associated equipment would comprise:

Battery Site

- 400 battery storage units battery units arranged in rows around 7.5m in length, around 2.8m wide and around 3.1m in height;
- Switchgear containers around 20m in length,
 3.5m wide and around 3.1m in height;
- Inverters and transformers local to the batteries will be around 2.8m in length, 2.3m wide and 2.9m in height; and
- 3 substations and substation equipment, with some elements being in the region of 11m in height. Further details are as follows:

Substation 1 (132kV)

• Control room – around 11.4m in length, around 3.3m wide and around 3m in height;

- 132kV transformers around 11m in length, around 9m wide and around 5.7m in height;
- Removable panels;
- 132kv switch house enclosure around 11m in length, around 15m wide and around 8.2m in height;
- Auxiliary transformer around 2.6m in length, around 2.5m wide and around 2.8m in height; and
- Around 2.4m high palisade fence with secured access gate.

Substation 2 (132kV)

- Control room around 15.5m in length, around 3.3m wide and around 3m in height;
- 132kV transformers around 12m in length, around 9m wide and around 5.7m in height;
- Removable panels;
- 132kv switch house enclosure around 19m in length, around 15m wide and around 8.7m in height.
- Auxiliary transformer around 2.6m in length, around 2.5m wide and around 2.8m in height; and
- Around 2.4m high palisade fence with secured access gate.

Substation 3 (400kV) to be developed by SPT

- Auxiliary transformer around 15.1m in length, around 9.2m width and around 11.4m in height;
- Customer control room around 2.5m in height; and
- Around 3m high palisade fence.

Other Details

- Landscape features around the site will include trees and hedgerow planting; and
- CCTV and light poles to be around 5m high.



What is being Proposed? (continued)



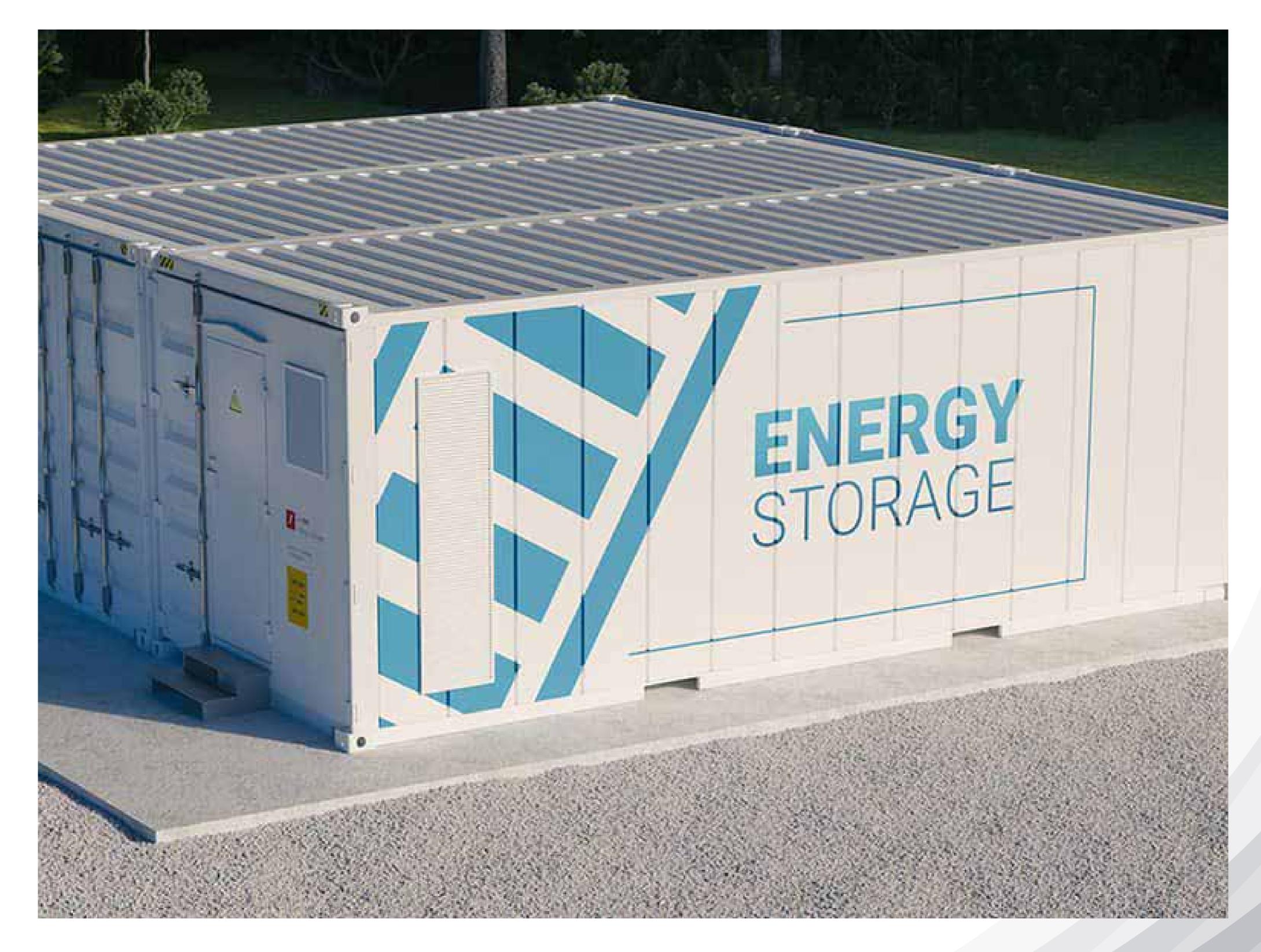
About Battery Storage

Battery storage is a proven technology which provides the flexibility needed to integrate more renewable generation and future proof our electricity system. A battery storage system can be charged by electricity generated by renewable energy, like wind and solar power, and released back into the Grid when demand increases.

The battery element of the unit is a very advanced version of a standard rechargeable battery you would find in a supermarket to power TV remotes or children's toys. We use computer technology and algorithms to calculate when the battery's stored energy should be kept or released into the Grid.

Our battery units are simple to install and run without the need for much maintenance. They are weatherproof and safe for passing people or animals – though the area will be fenced off and clearly signed for additional community safety.

While battery storage projects are unmanned, they are remotely monitored on a continuous basis to ensure they are available to store and discharge electricity whenever required. Regular visits will be undertaken by operation and maintenance operatives as part of a scheduled preventative maintenance programme.



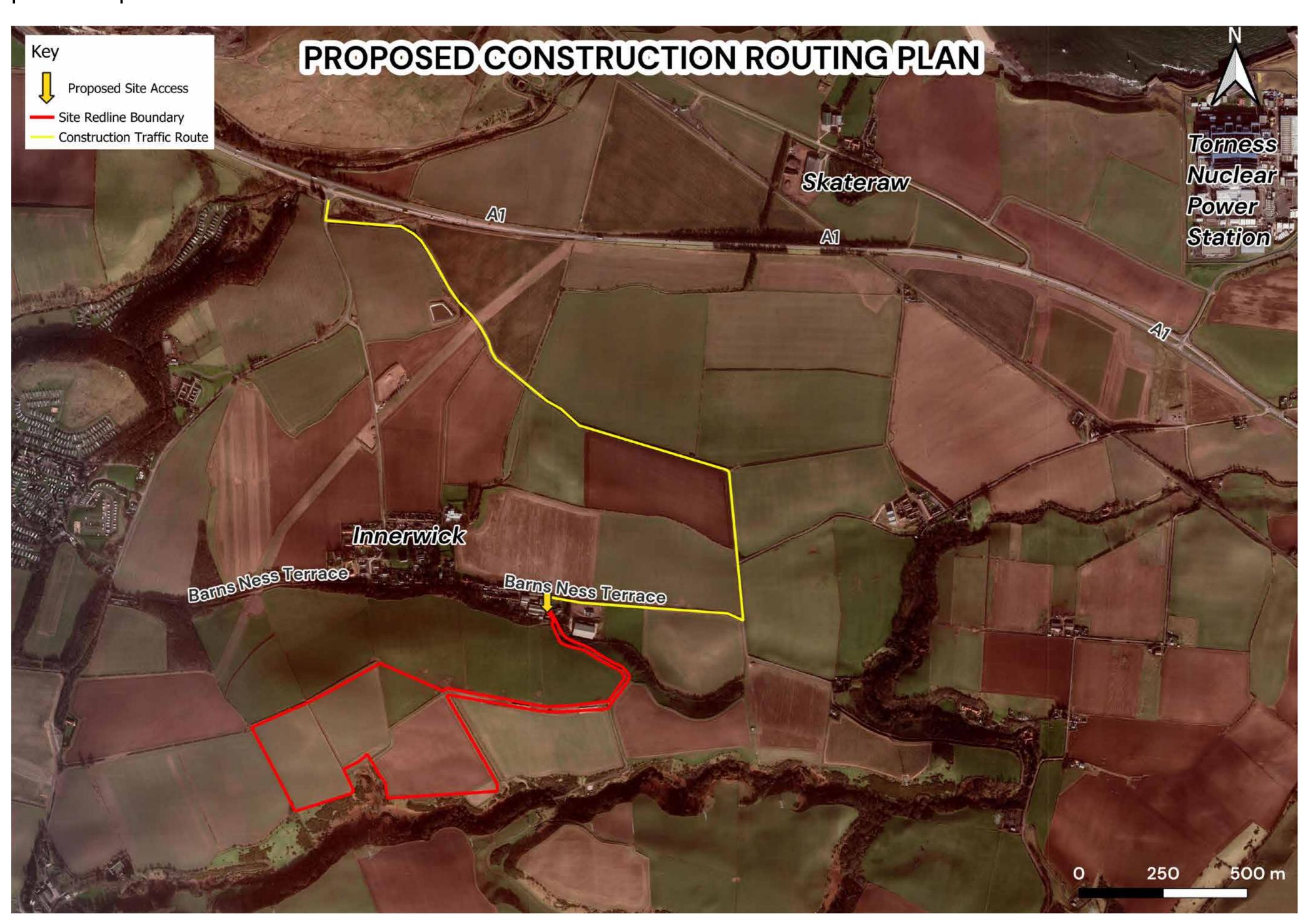


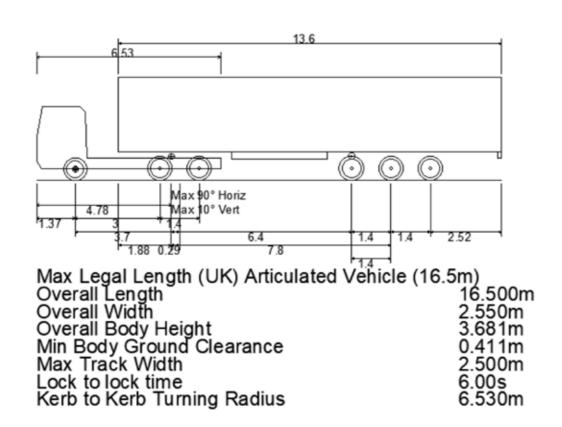
Transport

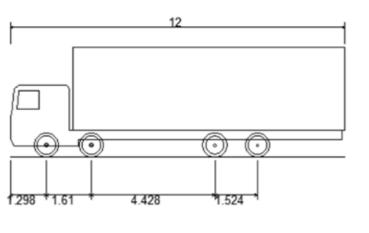


Access

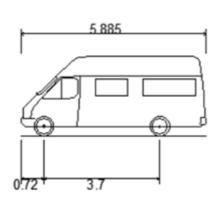
Access for the construction and the operation phases of development is to be taken from the north of the site from Barns Ness Terrace, Innerwick, (shown in the plan below). The access off Barns Ness Terrace shall be the existing Innerwick Farm entrance which currently accommodates large farm vehicles and machinery. Innerwick Farm is located on the edge of the village just within the 20mph posted speed limit extent.







Rigid Truck
Overall Length
Overall Width
Overall Body Height
Min Body Ground Clearance
Track Width
Lock to lock time
Kerb to Kerb Turning Radius



12.000m

2.500m 3.928m

0.412m

2.471m

11.900m

6.00s

4.6t Light Van
Overall Length
Overall Width
Overall Body Height
Min Body Ground Clearance
Track Width
Lock to lock time
Kerb to Kerb Turning Radius

5.885m 2.000m 2.526m 0.299m 1.765m 4.00s 6.000m

TYPES OF VEHICLE

Transport (continued)



Development Traffic Routing

The following route is being considered for construction vehicles arriving to and leaving the site, between the site and the A1 which is part of the Strategic Road Network (SRN), shown in yellow on the Access and Routing plan. The route to the development avoids travelling through the village of Innerwick.

- 1. Exit the site turning right onto Barns Ness Terrace and travel east for approximately 0.6km.
- 2. At the junction with the unnamed road turn left, signposted Crowhill, Thorntonlock and Dunbar, and continue north for 2.0km.
- 3. At the junction with the unnamed road turn right, signposted Edinburgh, Berwick (A1), and continue for 0.08km to reach the junction with the A1 northbound carriageway.
- 4. From this point development traffic may turn left towards Edinburgh and the north or right towards Berwick and the south.

Vehicles leaving the site will also travel on this route, in reverse.

Based on a desktop review and site visit (in October 2023), it is determined that the route is suitable for HGVs given that these roads accommodate existing HGV traffic (unrelated to this development) and form part of the no. 253 Edinburgh to Berwick bus route.

The route to the development site is the shortest possible route measuring only 2.68km from the A1 to the site access.

The development construction programme and traffic will be appropriately managed including by banksmen to mitigate potential cumulative impacts on the construction route.

During construction, both construction workers and delivery vehicles will require access to the site. Construction workers are anticipated to arrive in transit vans or minibuses. Delivery vehicles during the construction phase will comprise a mix of vehicles, some of which will be HGVs, which are anticipated to have similar dimensions to the types of vehicles shown on the previous board.

In addition, during the construction phase, there may be a requirement for a small number (e.g., one or two throughout the construction period) of Abnormal Indivisible Loads (AlLs). Any deliveries by AlLs will be managed via the approvals process with the relevant Highways teams, the weight of vehicles, the agreed times of movement, any escort vehicles and the use of banksmen to direct vehicles where necessary.

All construction vehicles will park within the main body of the site to unload goods to ensure that there is no impact on the surrounding residential environment. Similarly, wheel washing or road sweeping operations will be carried out as necessary if required, to ensure excess debris and dirt do not drop onto the local roads, where practicable.

After the construction phase is complete, the project will move onto the operational phase. During this phase, smaller vehicles such as transit type vans as shown on the previous board will visit the site, with one or two vehicles per week maximum for inspections and maintenance. The only time that vehicles larger than this will be required on site will be if a component on site requires replacement.



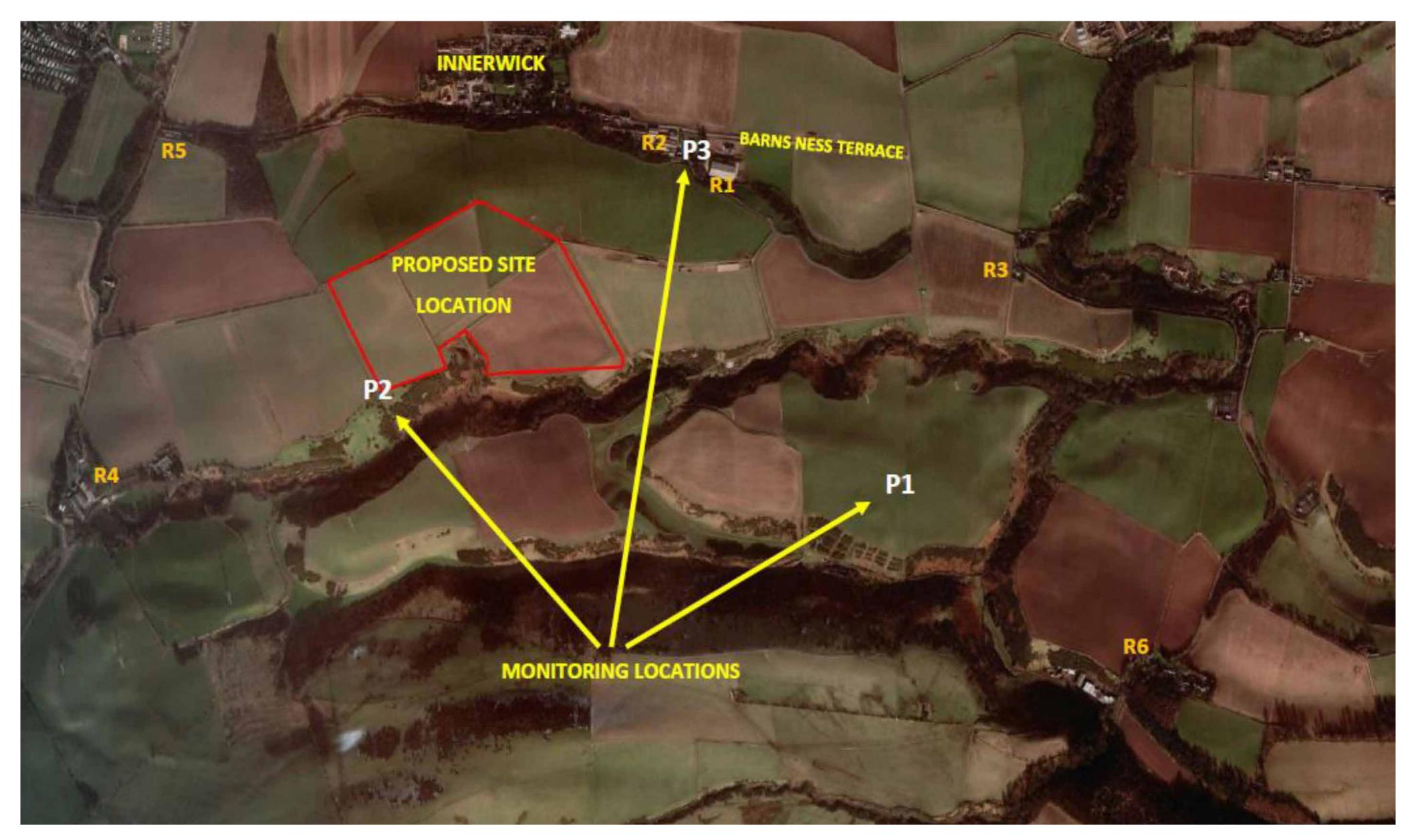
Noise



Noise

Impacts on technology and practical management of noise have now been assessed. The plan below shows where ambient noise levels have been measured. Those locations identified as P1 - P3 are considered representative of properties R1 - R6 and these locations have been chosen as such.

• Ambient noise levels have been measured at representative locations close to residential properties, and this exercise indicates that the background noise level, LA90,5mins, would typically fall to levels of 30 dB(A) during the daytime period of (07.00 – 23.00 hrs), and 24 dB(A) during the night-time period (23.00 – 07.00 hrs).



MONITORING LOCATIONS

- Calculations of noise radiating from the attenuated equipment have predicted noise levels of 24 dB(A) during the daytime and 26 dB(A) at night-time at 1m from the facade of the nearest residential properties some 970m away.
- Rating Levels of 28dB(A) have been confirmed and these will meet requirements set out by Environmental Health.
- Predicted internal noise levels have been established and it is confirmed that these will be below the NR2O Rating Curve and therefore will meet requirements set out by Environment Health.

 A further assessment of the predicted noise, in absolute terms, indicates that levels would be significantly below the British Standard 8233 guidelines for residential occupation during both the day and night.

As such, it is considered that acoustic mitigation and attenuation such as acoustic fences are not required.



Landscape



Landscape & Visual Impacts

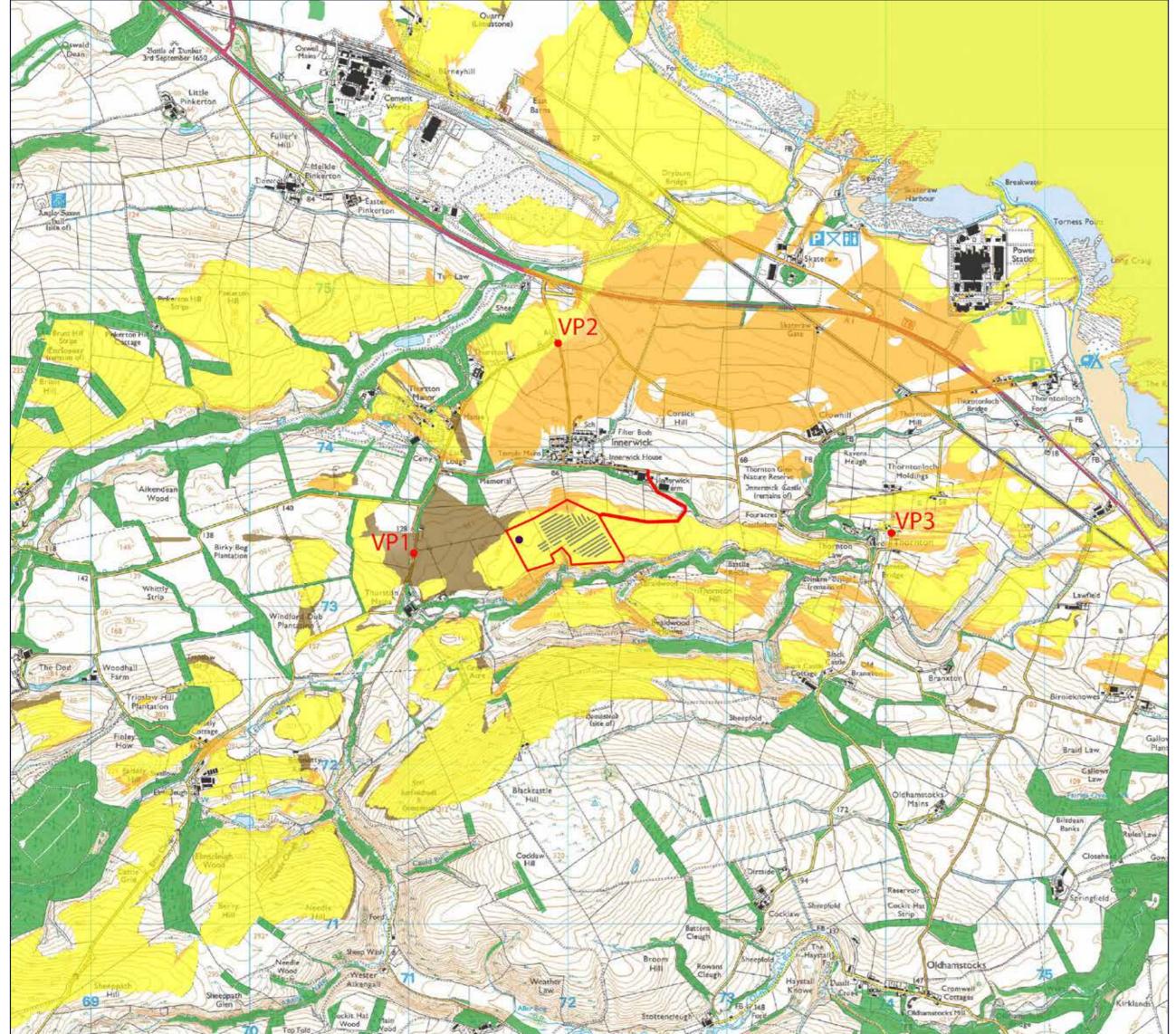
It is acknowledged from the outset that, in common with almost all commercial energy developments, some landscape and visual effects would occur as a result of the proposals. However, due to the careful siting and design of the development, these landscape and visual effects would be very limited, with many nearby areas having no views of the proposals, including no views from all residential properties in Innerwick.

A Screened Zone of Theoretical Visibility (SZTV) map has been created which illustrates the geographical area within which views of development on Site are theoretically possible.

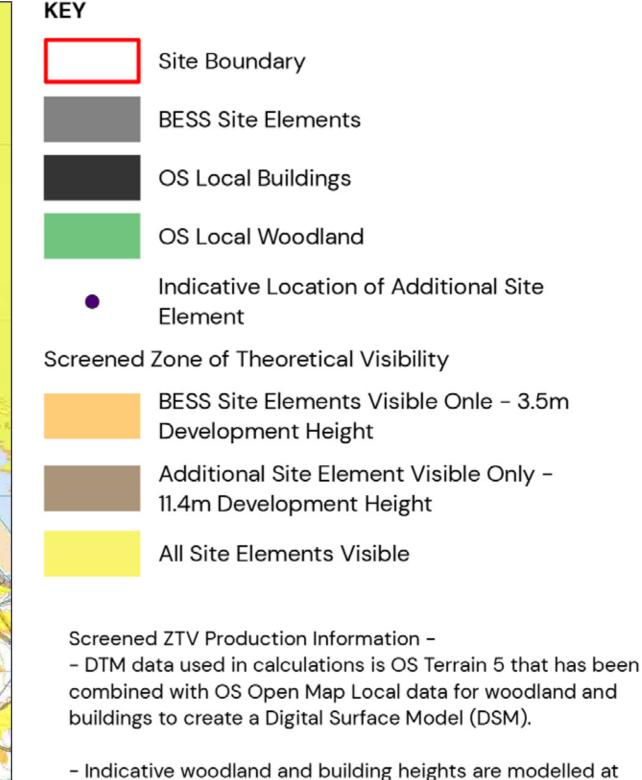
The SZTV has been produced using Digital Terrain Modelling (DTM) and LIDAR data. Existing built development (8m tall) and larger blocks of woodland have also been modelled (approx 11.4m) tall) to take account of the screening effect that these would provide. However, the screening

effect provided by smaller blocks of woodland and hedgerows/hedgerow trees, particularly those surrounding the site, have not been taken into account, and consequently the actual extent of the area from which the proposed development is visible is likely to be much smaller. Additionally, the proposed landscaping would further mitigate any effect.

Taking all of the above into account, site visit photography and 3D modelling of the scheme, visualisations of viewpoints have been produced, and are provided on the subsequent boards. The below SZTV shows the viewpoint locations. The visualisations provide a further assessment of the visual impact of the scheme and show proposed planting at year 1. As can be seen, the visualisations show a much reduced visual impact than the SZTV suggests.



SCREENED ZONE OF THEORETICAL VISIBILITY (SZTV)



- 15m and 8m respectively.
- Viewer height set at 1.7m
- (in accordance with para 6.11 of GLVIA Third Edition)
- Calculations include earth curvature and light refraction

N.B. This Zone of Theoretical Visibility (ZTV) image illustrates the theoretical extent of where the development may be visible from, assuming 100% atmospheric visibility, and includes the screening effect from vegetation and buildings, based on the assumptions stated above.



Visualisations







Camera make & model Lens make & focal length Date & time of photograph OS grid reference

- Canon 5D II - Canon EF 50mm, f/1.4 USM - 31/11/2023 @ 15:06 - 371034, 673330

Distance from site Projection Enlargement / Sheet Size

Viewpoint height (AOD)

- 130m - 600m - Planar - 100% @ A3

TO BE VIEWED AT A COMFORTABLE ARM'S LENGTH

Visualisation Type Field of View Height of camera AGL Page size / Image size (mm)

- Type 1 - 39.6° x 27° - 1.5m - 420 x 297 / 390 x 260

VIEWPOINT 01 - EXISTING View looking towards the western edge of the site

P23-0094_EN_02 PHOTOMONTAGES | BRAXBESS

The state of the s



Camera make & model Lens make & focal length Date & time of photograph OS grid reference

− Canon 5D II - Canon EF 50mm, f/1.4 USM - 31/11/2023 @ 15:06 - 371034 . 673330

Viewpoint height (AOD) Distance from site Projection Enlargement / Sheet Size

- 130m Visualisation Type - 600m Field of View - Planar Height of camera AGL - 100% @ A3 TO BE VIEWED AT A COMFORTABLE ARM'S LENGTH

Page size / Image size (mm)

- Type 3 - 39.6° x 27° - 1.5m - 420 x 297 / 390 x 260

VIEWPOINT 01 - PHOTOMONTAGE (YR1) View looking towards the western edge of the site

P23-0094_EN_02 PHOTOMONTAGES | BRAXBESS

Visualisations





PEGASUS GROUP

Camera make & model Lens make & focal length Date & time of photograph OS grid reference - Canon EF 50mm, f/1.4 USM - 31/11/2023 @ 14:44 - 371944 , 674643

Viewpoint height (AOD) Distance from site Projection Enlargement / Sheet Size

- 980m - Planar -100% @ A3

TO BE VIEWED AT A COMFORTABLE ARM'S LENGTH

Visualisation Type Field of View Height of camera AGL Page size / Image size (mm)

- Type 1 - 39.6° x 27° - 1.5m - 420 x 297 / 390 x 260

VIEWPOINT 02 - EXISTING View looking towards the northern edge of the site

P23-0094_EN_02 PHOTOMONTAGES | BRAXBESS



PEGASUS GROUP

Camera make & model Lens make & focal length Date & time of photograph OS grid reference

- Canon 5D II - Canon EF 50mm, f/l.4 USM - 31/11/2023 @ 14:44 - 371944 . 674643

Projection

Viewpoint height (AOD) Distance from site Enlargement / Sheet Size

- 61m - 980m - Planar - 100% @ A3 TO BE VIEWED AT A COMFORTABLE ARM'S LENGTH

Visualisation Type Field of View Height of camera AGL Page size / Image size (mm) - Type 3 - 39.6" x 27" - 1.5m - 420 x 297 / 390 x 260

VIEWPOINT 02 - PHOTOMONTAGE (YR1) View looking towards the northern edge of the site

P23-0094_EN_02 PHOTOMONTAGES | BRAXBESS

Visualisations







TO BE VIEWED AT A COMFORTABLE ARM'S LENGTH

P23-0094_EN_02 PHOTOMONTAGES | BRAXBESS

Fire Safety, Heritage & Drainage



Fire Safety

Fire risk within the BESS will be managed in a number of ways (in addition to the base chemistry of the battery cells), including software and hardware fail safes and fire suppression systems. Temperature within each cell of each battery module will be monitored by the BESS container monitoring system and any temperature variation within an individual module outside optimum operating conditions would trigger a response. Many existing operational BESS projects use air cooling systems, whereas newer technologies incorporate liquid cooling; in either case the fundamental approach to monitoring and control remains the same. Additionally, the containers have HVAC units that aim to maintain a stable temperature. If a temperature increase occurs above the set level, or there is a failure of the air-conditioning units, the SCADA system will raise a warning to the monitoring team. If the temperature continues to rise the BESS container would automatically shutdown (partially or fully) to mitigate against the risk of thermal runaway and fire.

In the very unlikely event of a battery fire in one of the modules, a fire suppression system would be triggered automatically which would comprise appropriately designed extinguishing gas. This is a waterless fire protection system and as such there is no risk to soils or ground water as a result of operation. The extinguishant gas would be discharged into the fire risk area and would suppress any fire immediately by removing the free radicals or heat elements from the fire triangle. (Oxygen, Heat and Fuel). Extinguishant systems are widely used for confined spaces and reach extinguishing levels in 10 seconds or less, stopping fires before they cause significant damage. This extinguishes the fire quickly, which means less damage to adjacent battery modules and lower repair costs.

Additionally, BESS systems will be compliant with UL954OA which tests the fire safety hazards associated with propagating thermal runaway within battery systems in both cell module and rack level. The site layout will be compliant with NFPA855 in particular with regards to the layout of

battery containers and associated equipment to ensure the lowest possible risk of fire propagation in the unlikely event that should this occur.

Furthermore, the applicant will work with East Lothian Council in terms of fire safety, subject to separate necessary consents being granted and a fire safety plan will be agreed with the local fire authority in due course.

Heritage

The site and its surroundings have been in agricultural use since the medieval period with many farm buildings and steadings located in the area and recorded in the East Lothian Historic Environment Record (HER). Prehistoric sites are recorded in the area surrounding the site, including graves from the Iron Age, Bronze Age, and a variety of enclosures including Braidwood Enclosure, a scheduled monument located c. 350m east of the site, this is comprised of a single domestic building with an associated enclosure.

A geophysical survey was carried out in April 2023 over the development area and its surroundings which showed evidence of medieval and post-medieval farming across the site as well as an area c.14m in diameter possibly of archaeological origins. As part of the planning application, a heritage statement will be prepared to assess the archaeological potential of the site and its impacts on the setting of listed buildings and scheduled monuments in the area with any mitigation agreed with East Lothian council.

Drainage

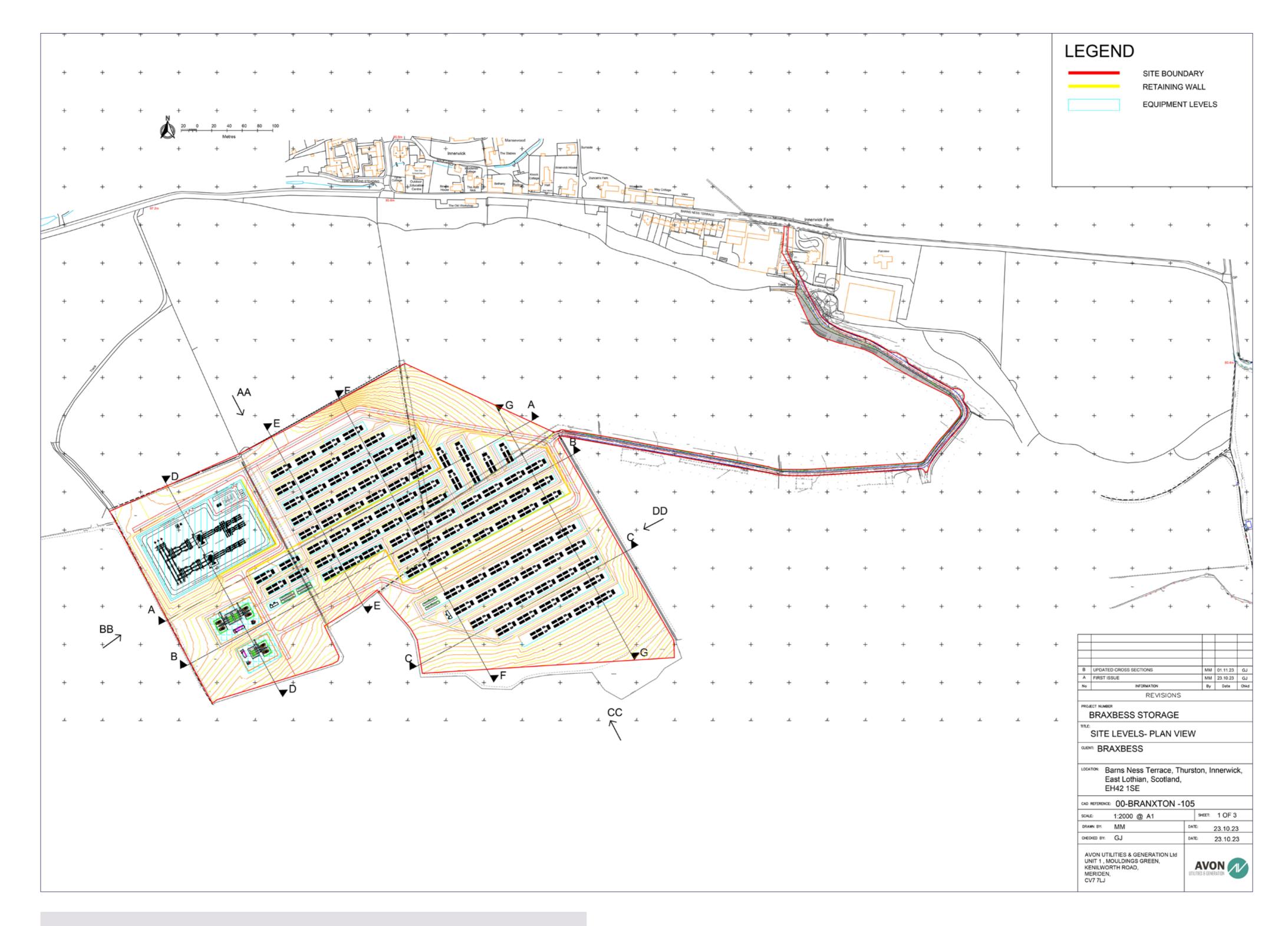
The drainage strategy for the site takes account of all statutory legislation and addresses required rainfall intensities, treatment, attenuation and discharge. Cognizance has been taken of the need to incorporate procedures in the event of an incident requiring attendance by the Fire Authorities.



Site Cross Sections



These site sections represent a depiction of the change in ground levels required to accommodate the infrastructure. The sections are sympathetic to the existing topography and have been value engineered. They provide an illustration and sense of place within the existing landscape. The sections also accommodate terracing and plateaus for placement of batteries and transformers.

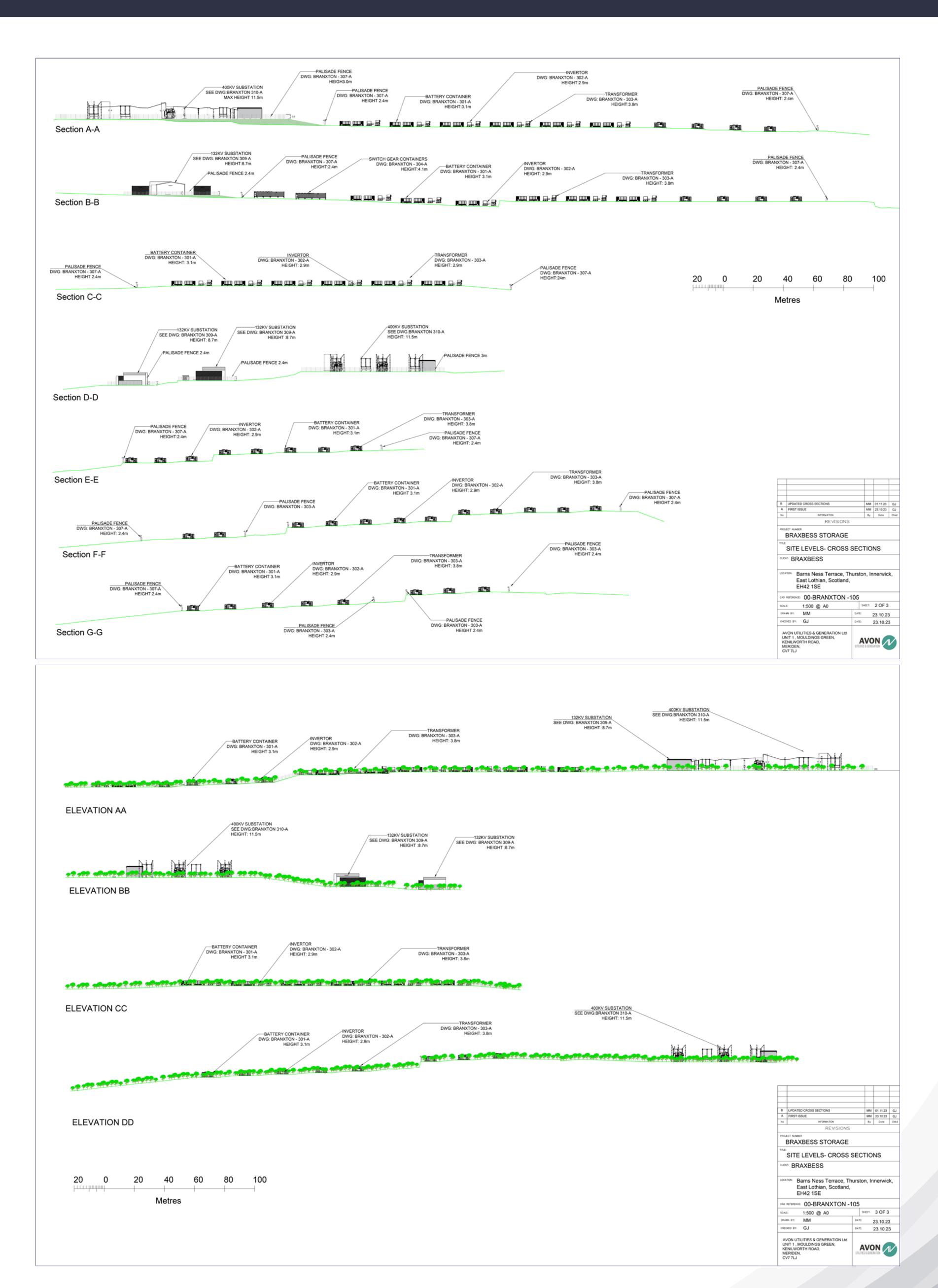


A3 printed packs of our Site Levels Cross Sections are available to view from our team upon request. These plans are also provided on the consultation website.



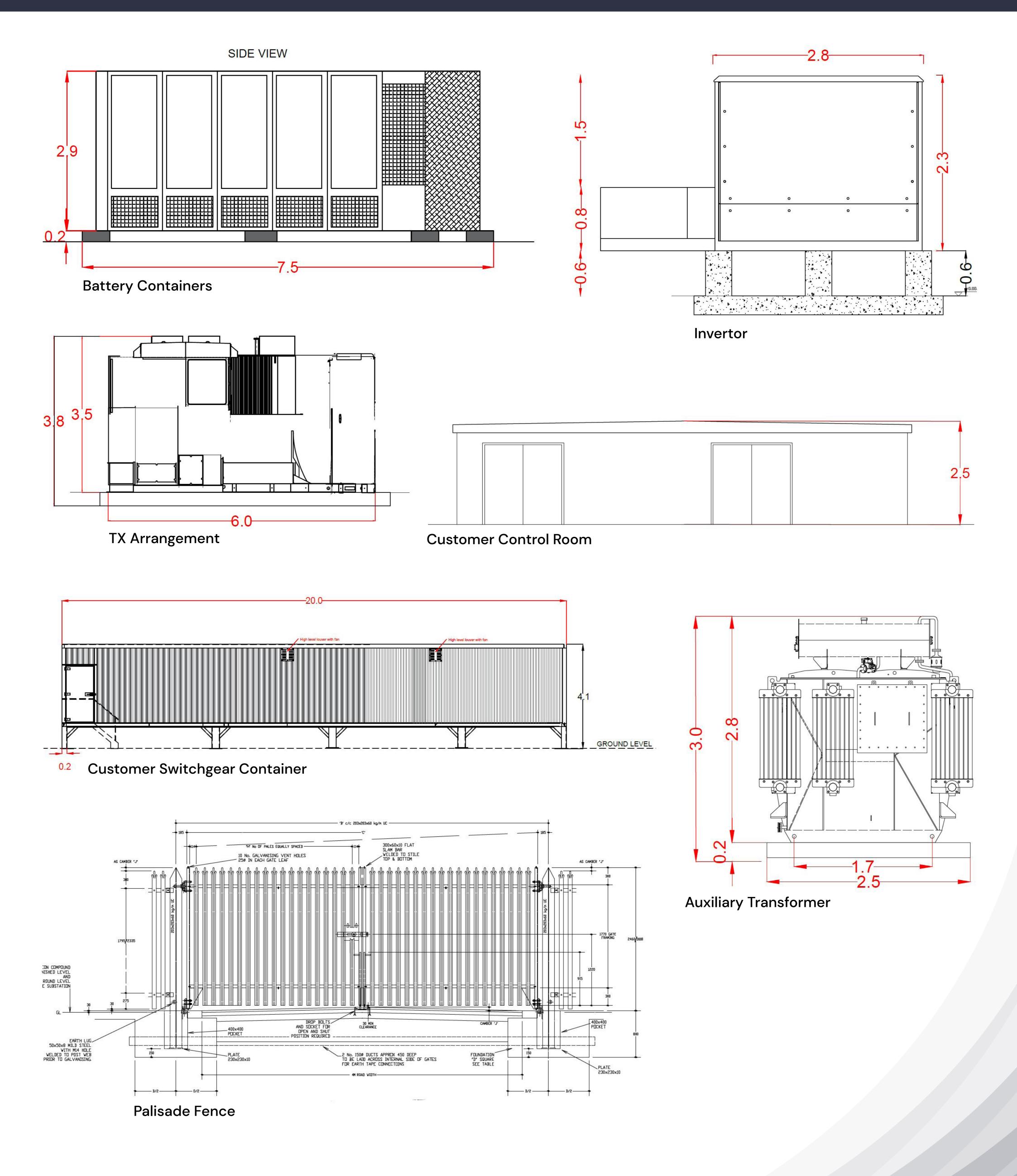
Site Cross Sections (continued)





Battery Energy Storage System Equipment Elevations





Addressing Comments



Following a review of the feedback received from the 1st consultation, the following matters were the three key elements.

YOU SAID: Concerned that the site would cause noise disturbance

The facility will offer additional power to the national grid during peak periods of demand, which is generally during day or evening periods only.

A noise survey has been undertaken to:

- Determine the existing ambient noise levels in the area;
- Determine the likely noise emitted from the new facility;
- Where appropriate, recommend forms of noise control that will limit emissions to an acceptable level; and

 Assess the emitted noise in accordance with relevant standards.

A noise assessment will be prepared and submitted as part of any future application. It is considered that the proposed installation, with attenuated noise sources, would not have a significant adverse impact on the neighbouring properties. However, the assessment will be reviewed subject to the final design of the scheme.

In terms of cumulative effects, we are going to consider the relevant cumulative effects of this proposal against others (where relevant).

YOU SAID: Concerned about construction traffic and cumulative impacts

The route to the development avoids travelling through the village of Innerwick.

Access for the construction and the operation phases of the development is to be taken from the north of the site from Barns Ness Terrace, Innerwick. The access off Barns Ness Terrace is the existing Innerwick Farm entrance which currently accommodates large farm vehicles and machinery.

A route is being considered for construction vehicles arriving to and leaving the site and further information on this is provided on boards six and seven.

The development construction programme and traffic will be appropriately managed to mitigate potential cumulative impacts on the construction route.

YOU SAID: Concerned about impacts on ecology

A Preliminary Ecological Appraisal and extended Phase I habitat survey and desk study has been undertaken for the site. This appraisal recommended that based on the results of these, additional secondary surveys are recommended. Following the completion of the secondary surveys, the results will be compiled into an ecological impact assessment (EcIA) taking into account the design, construction and operation of the battery storage site. The EcIA will carefully

assess the ecological importance of the features present on site, the nearby statutory and non-statutory designations, potential for negative impacts on those features, and measures to mitigate them in accordance with CIEEM guidelines and relevant legislation.

The site is to be decommissioned after 40 years when it is no longer operational and restored to its former status.



Next Steps



Thank you for taking the time to visit our exhibition. Please let us know your feedback, as your comments will help to inform the design of the scheme and the planning application that we will make by winter 2023.

All responses from today's exhibition will be carefully considered, and we welcome all feedback. Our intention is to examine all comments received and record them as part of our consultation process prior to submitting an application to the Energy Consents Unit.

All comments are gratefully received by:

5:30pm on 30th November 2023.

Key dates:

Winter	Autumn/Winter	Winter	Spring	2028
2023	2024	2024	2026	
Planning validated	Decision expected	Planning condition discharge	Construction starts on Site	Start of commercial operations





Feedback



Thank you for attending the public exhibition.

In order for us to monitor who came to the exhibition, please place a sticker in the box below that applies to you and also place a sticker on the map where you live.

	Under 18 years old	18-35 years old	36-55 years old	56-70 years old	Over 70 years old	Prefer not to say
<u>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</u>						
Female						
	Under 18 years old	18-35 years old	36-55 years old	56-70 years old	Over 70 years old	Prefer not to say
()						
Male						
	Under 18 years old	18-35 years old	36-55 years old	56-70 years old	Over 70 years old	Prefer not to say
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East Lin	West Barns	Dunbar Golf Club				Key Red circle denotes
Foxlake Adventures C	Art Art	Broxburn				leaflet drop area
	Spot!					
Pitcox				Skateraw		
			Innerwick	Thorntonioch		
		Woodhall Dean - Scottish	Wildlife Trust SITE			
	Halls				Bilsdean Dunglass	
					Cockbyrosoth	ove Common Commo
				Oldhamstocks	Cockburnspath	
						Old Cambus
					Ecclaw	