

Elwy Solar Energy Farm

ENVIRONMENTAL STATEMENT NON-TECHNICAL SUMMARY

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Pegasus Group

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1 INTRODUCTION

- 1.1. This Environmental Statement Non-Technical Summary has been prepared by Pegasus Group on behalf of Solarcentury (“the Applicant”) and forms part of a suite of documents supporting a planning application for a Development of National Significance (“DNS”) for Elwy Solar Energy Farm on land at Gwernigron Farm, St Asaph, Denbighshire (“the Application Site”).
- 1.2. This application seeks full Planning Permission for Elwy Solar Energy Farm with the following Description of Development:
“Construction of a solar farm and energy storage hybrid park, together with all associated works, equipment and necessary infrastructure.”
- 1.3. The main element of the scheme is the installation of ground mounted solar panels as well as electrical connection infrastructure. Due to its potential generating capacity of approximately 47.5MW, this project constitutes a Development of National Significance (“DNS”). Therefore, instead of applying to the Local Planning Authority for Planning Permission, this planning application will be determined by the Welsh Government.

ENVIRONMENTAL IMPACT ASSESSMENT (EIA) AND ENVIRONMENTAL STATEMENT

- 1.4. An Environmental Statement (ES) is a document which sets out the findings of an Environmental Impact Assessment (EIA). The ES comprises a series of studies which address the environmental issues which are considered to be relevant to the construction, operation and decommissioning of the proposed development. The ES also outlines any alternatives that have been considered and includes the mitigation measures to avoid or reduce significant adverse effects. The EIA has been carried out prior to the submission of a planning application.
- 1.5. The statutory requirements for carrying out an EIA, the contents of the Environmental Statement and the procedures for determining planning applications for 'EIA Development' are set out within the Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017.
- 1.6. To determine the extent (or 'scope') of issues to be considered in the EIA and reported on in the ES, the Planning Inspectorate provided a formal opinion (Scoping Direction) which confirmed the information to be supplied in the ES. The ES has been prepared in accordance with the Scoping Direction from the Planning Inspectorate.
- 1.7. This Non-Technical Summary (NTS) provides a summary of all disciplines which have been assessed in the ES.



FIGURE 1: APPLICATION SITE CONTEXT

2 APPLICATION SITE AND CONTEXT

- 2.1. The application site comprises 156 hectares of land (the actual solar and battery installation will take up 62.5 hectares whilst the remainder of land allows for a corridor for the installation of an underground grid connection) near to the city of St Asaph, approximately 2km east of Bodelwyddan and approximately 2.5km south of Rhuddlan. The Application Site Context is shown on **Figure 1** and the Application Site Boundary is shown on **Figure 2**.
- 2.2. The site is located within the administrative boundary of Denbighshire County Council.

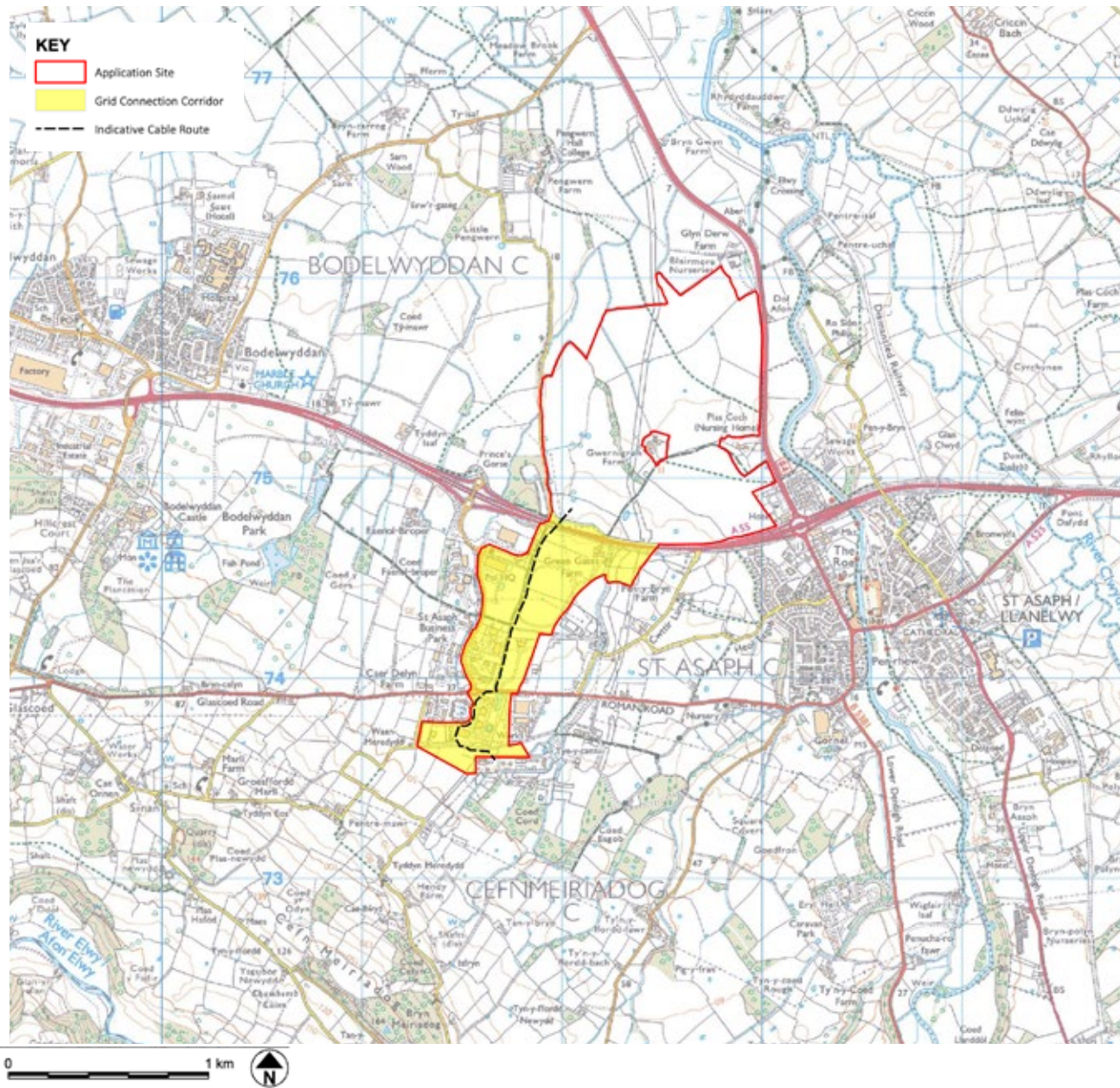


FIGURE 2: APPLICATION SITE BOUNDARY

- 2.3. The application site is located to the north of the A55 and to the west of the A525.
- 2.4. A number of trees and hedgerows are present across the site along with several ponds. An area of Ancient Semi Natural Woodland is located within the site to the north-west of Gwernigron Farmhouse. The River Elwy is located approximately 150m east from the eastern site boundary.
- 2.5. There are three Denbighshire County Council Public Rights of Way (PRoW) which route across the site (201/8, 208/20 and 208/18). Additionally, a Sustrans National Route 84 runs adjacent to the eastern site boundary.
- 2.6. The site does not lie within or adjacent to any statutory or non-statutory designated sites for nature conservation, however, there are several designated sites in the area within 10km of the application site including: Elwy Woods SSSI/SAC (c.3.5km south-west), Liverpool Bay SPA (c.6.5km north), the Dee Estuary SSSI/Ramsar/SPA/SAC (c.9.5km north-east) and Coedydd ac ogofau Elwy a meirchion SSSI (c.3.5km south-west).
- 2.7. The site is not subject to any statutory designations relating to its historic value. The Grade II Listed Gwernigron Farmhouse and its Grade II* Listed Dovecote is excluded from, but surrounded by the application site. Meanwhile the Grade II Listed Plas Coch, and the Grade II Listed Talardy Hotel and its Grade II Listed garden wall and greenhouse, lie outside the eastern boundary of the site. Designated historic assets further afield include the Grade II Listed Pengwern Hall (c. 525m to the north); the Grade 1 Listed and Scheduled Monument Rhuddlan Castle (c. 1.5km to the north), St Asaph (c. 400m to the south east) , Rhuddlan (c. 1.1km to the north) and Bodelwyddan Conservation Areas (c. 1.4km to the west)– each containing numerous Listed Buildings; and the Grade II* Listed Bodelwyddan Castle (c. 2km to the south west) and its historic park and garden (c. 1.1km to the south west).

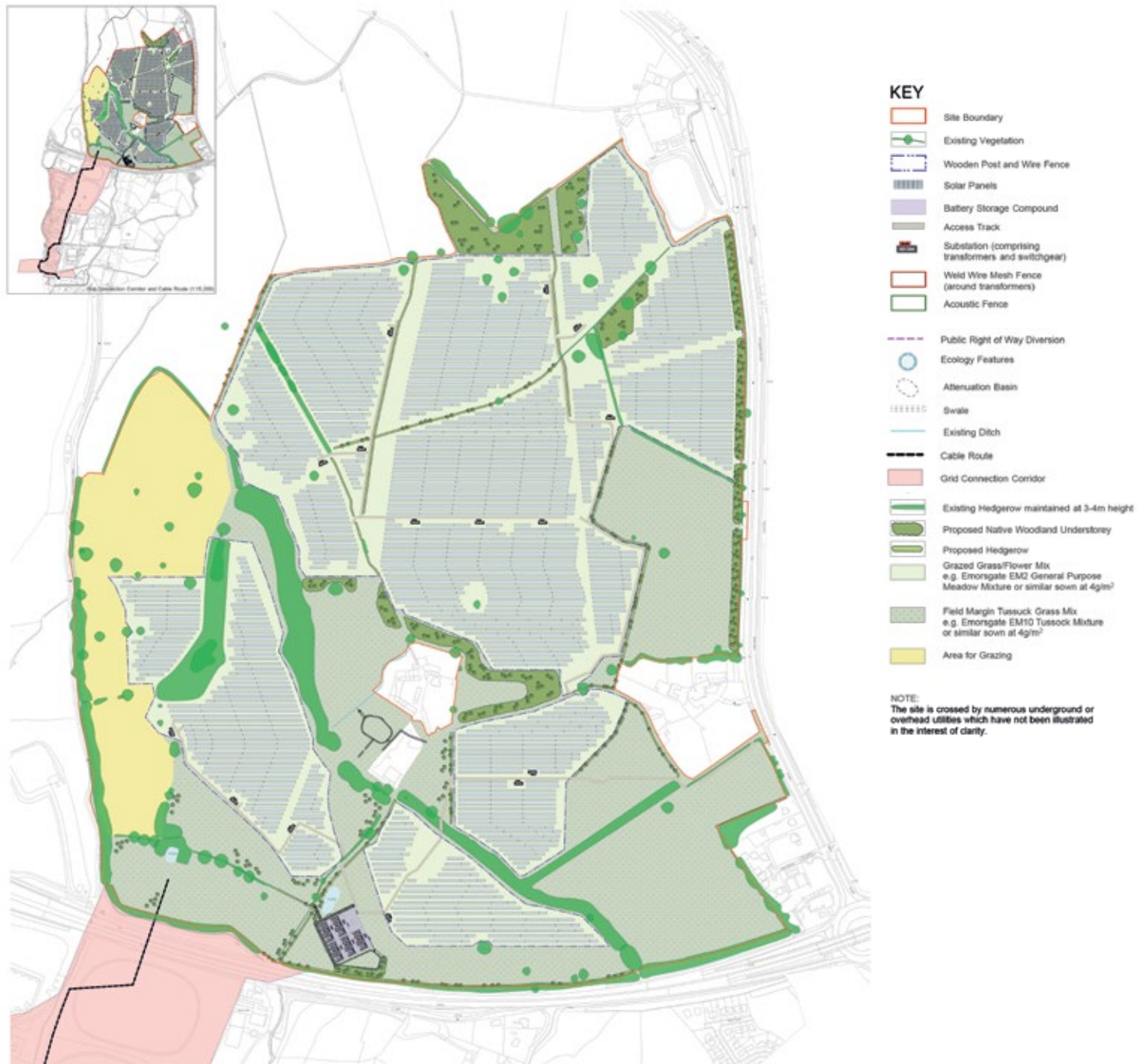


FIGURE 3: PROPOSED DEVELOPMENT

3. THE PROPOSED DEVELOPMENT

- 3.1. The Proposed Development (**Figure 3**) relates to Elwy Solar Energy Farm. The main element of the proposal is the installation of a ground mounted solar farm to achieve a generating capacity of approximately 47.5MW. Proposed Development comprises the following key components:
- Photovoltaic (PV) arrays (fixed panels);
 - 25 Substations (40ft) positioned around the site;
 - Exporting Substation;
 - Battery Storage Compound;
 - Boundary fencing;
 - A CCTV system on c.3m poles, located at strategic points around the site;
 - Associated access tracks, this will include a permanent access track as well as a temporary construction only access track. The main site access will be into the south-eastern boundary of the site from St Asaph Road (A525). An additional access has been proposed into the eastern site boundary, this access is intended for use during the construction phase only;
 - Underground grid connection cable;
 - Relevant communications and monitoring equipment.
- 3.2. The photovoltaic panels would be set at an angle of approximately 22 degrees. The photovoltaic (PV) arrays will be fixed panels which will be positioned at a 'fixed' tilt and orientation. The top edges of the panels would be up to 3m above ground level and the lower edges of the panels would be between 0.8m and 1.35m above ground level. The photovoltaic panels would be placed on metal arrays arranged in rows, allowing for boundary landscaping, perimeter fencing and access.
- 3.3. The 25 battery storage containers (each 12m long) and associated equipment are located within a compound in the southern part of the site adjacent to the A55.
- 3.4. A security fence (approximately 2m in height) will be installed around the Site to protect the solar panels from theft or vandalism. The fencing will provide gaps at ground level to allow for ecology to freely enter and exit. In addition, pole mounted CCTV security cameras (approximately 3m high) will also be provided.
- 3.5. A grid connection route corridor is included as part of the planning application. This will require underground cabling to connect the site to the Bodelwyddan substation. The cable route will involve horizontal directional drilling under the A55 to enable connection from the site to the substation. The grid connection corridor from the site to the substation has been assessed as part of each of the technical assessments in the ES.

OPERATIONAL LIFESPAN

- 3.6. The development would export renewable energy to the grid for 37 years. During the operational phase, the activities on site would consist of servicing of plant and equipment as well as vegetation management.
- 3.7. Following cessation of energy generation and exportation at the site, and as part of the contractual obligations with the landowner, the above ground elements would be decommissioned and removed from site.

ACCESS

- 3.8. The main site access will be into the south-eastern boundary of the site from St Asaph Road (A525). An additional access is proposed into the eastern site boundary, this access is intended for use during the construction phase only.

ROUTING

- 3.9. Construction delivery vehicles approaching from the north will route to the A525/ A547 Ffordd Abergele/ Station Road roundabout (north of the site) before routing along the southbound carriageway of the A525. The northbound carriageway of the A525 can then be accessed via the A525/A55 North Wales Expressway roundabout. Vehicles approaching from the south, east and west will route from the A525/A55 North Wales Expressway roundabout.

BIODIVERSITY ENHANCEMENTS

- 3.10. The application proposals include a number of landscape, ecological and biodiversity benefits. Land between and beneath the panels would be used for biodiversity enhancements and seasonal sheep grazing.
- 3.11. Tree and hedgerow planting would be introduced to improve screening where required and provision for enhanced habitats for Great Crested Newts are proposed.

AMENITY ENHANCEMENTS

- 3.12. Within the development site boundary, there are two sections of the site which are intersected by Public Rights of Way (PROW). Additionally, a SUSTRANS National Route runs adjacent to the eastern site boundary. Footpath 201/8 currently enters the application site along its northern boundary and travels south east to the exit the application site's eastern boundary. There is no obvious onward route for pedestrians at this point as the path exits the field onto the site of the dual carriageway with no allocated path along the roadside. The proposed diversion will connect the footpaths 201/8 and 208/20 and allow an unobstructed route from the sealed pavement along The Roe north to Pengwern and beyond to the coast. Consent for the amendments proposed

to PROW at the site will be sought from the LPA separately under Section 257 of the Town and Country Planning Act 1990. The need for this separate consent to enable the development to be constructed and operated as proposed within the documents submitted as part of this DNS application can be secured via inclusion of an appropriately worded planning condition.

SITE SELECTION

3.13. A suitable point of connection to the electricity network is one of the biggest constraints which has to be considered when developing a renewable energy scheme. Once the point of connection is established, the development site itself was selected through extensive assessments based on a range of technical, environmental and economic factors. The following factors were key considerations in the site selection process: grid connection type, flood risk, landscape/topography, agricultural land, heritage, biodiversity, proximity to sensitive receptors and commercial agreements with the landowner.

ALTERNATIVE DESIGN

- 3.14. The constraints and opportunities presented by the Application Site have been used to inform the design principles.
- 3.15. The design of the scheme has been continually refined over the course of the design process. A number of mitigation measures have been implemented during the iterative design stage and these relate to the protection of boundary vegetation, location and alignment of access tracks, location of ancillary infrastructure such as transformers and invertors, the location of the construction compound area and the fine tuning of the extent of the solar panels.
- 3.16. Additional amendments have been made in response to consultees received at the post-submission stage which include the removal of panels from areas of the highest grade of best and most versatile land, the incorporation of additional planting to break and screen views of the site from the AONB, and the removal of panels in proximity to the A55.

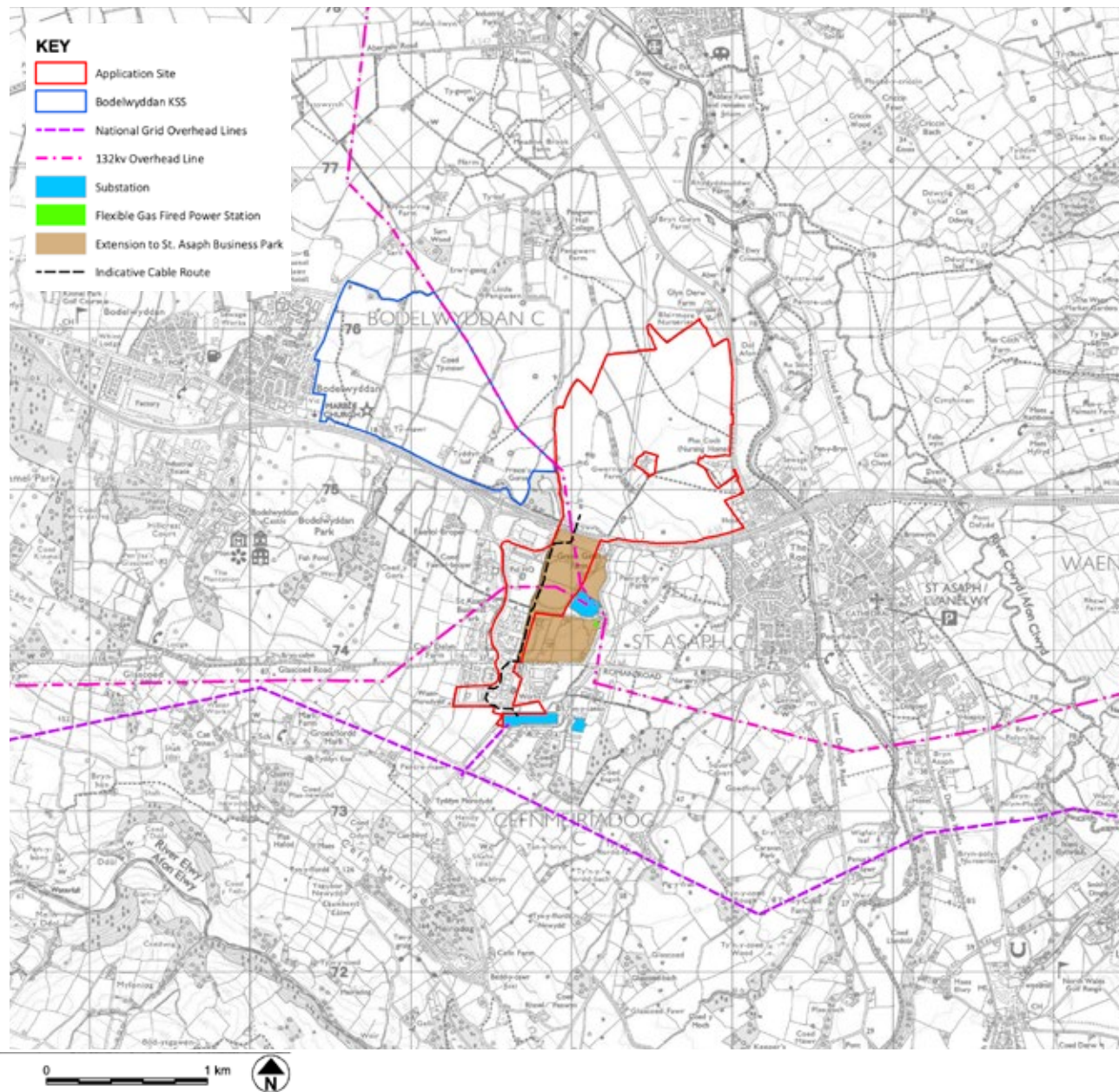


FIGURE 4: SCHEMES CONSIDERED IN THE ASSESSMENT OF CUMULATIVE EFFECTS

4. ASSESSMENT METHODOLOGY

- 4.1. To determine the extent (or 'scope') of issues to be considered in the EIA and reported on in the ES, the Planning Inspectorate provided a formal opinion (Scoping Direction) which confirmed the information to be supplied in the ES. The ES has been prepared in accordance with the Scoping Direction from the Planning Inspectorate.
- Human Health (including Noise);
 - Biodiversity;
 - Landscape and Visual;
 - Air Quality (Construction Phase);
 - Transport and Traffic (Construction Phase); and
 - Risk of Major Accidents.
- 4.2. Non-technical summaries of these assessments are provided within this document.
- 4.3. The Scoping Direction also identified several developments in the vicinity of the Application Site which may have the potential for cumulative effects when considered in combination with the Proposed Development. These are shown on **Figure 4**.

5. LANDSCAPE & VISUAL

- 5.1. The likely effects of the development on landscape character, landscape features and elements within and in the immediate vicinity of the Proposed Development have been assessed.

ASSESSMENT OF LIKELY SIGNIFICANT EFFECTS

CONSTRUCTION PHASE

- 5.2. The Proposed Development would include extensive hedgerow, tree, and native woodland planting, partly to mitigate the potential visual effects but also to enhance the landscape framework across the Site. The proposed planting would result in major beneficial effects upon the tree resource and moderate beneficial effects upon the hedgerow resource within the Application Site.
- 5.3. Trees and hedges will be protected during construction phase, there will be some negligible hedgerow loss for access.
- 5.4. Due to the characteristics of the Proposed Development, effects on the landscape character, the AONB landscape, and visual receptors have not been considered separately for the construction stage. Any potential effects are likely to be similar or lower than those experienced during the operational phase of the Proposed Development.

OPERATIONAL PHASE

- 5.5. Due to the distance and the nature of the Proposed Development, the Clwydian Range and Dee Valley AONB are unlikely to experience any significant effects once the Proposed Development is constructed.
- 5.6. Only two out of nine identified sensitive viewpoints which have been assessed are subject to significant effects, both of these viewpoints are located within the site. The proposed planting likely to reduce the visibility of the solar panels and the associated infrastructure, but unlikely to mitigate against significant visual effects.
- 5.7. In terms of visual receptors, none of those located within the surrounding landscape have been considered to be subject to significant visual effects. People travelling along the public rights of way which cross the Site would experience locally some significant visual effects due to proximity and direct nature of views. This relate to Public Footpath DE/201/8; Public Footpath DE/208/20; and Public Bridleway DE/208/18.
- 5.8. At Year 1 it is likely that significant visual effects would occur at the properties associated with Gwernigron Farm House, Plas Coch, Wern Bach, and the properties overlooking the south eastern corner of the Proposed Development. However, once the proposed mitigation measures have matured, it is predicted that the proposed

hedgerow, tree, and native woodland planting would mitigate against these significant effects.

MITIGATION AND ENHANCEMENT

- 5.9. A number of mitigation measures have been implemented during the iterative design stage and these relate to the protection of boundary vegetation, location and alignment of access tracks, location of ancillary infrastructure such as substations and transformers as well as the location of the construction compound.
- 5.10. Positive management of existing hedgerows and new hedgerow tree planting has been included to reduce the visual effects and reduce the potential change upon the landscape character and visual amenity of the nearby receptors. Additional hedgerow, tree, and native woodland planting along the northern and eastern external boundaries, and some of the internal boundaries within the Site, would help strengthened the landscape framework.
- 5.11. Following decommissioning the site will be returned to its original condition. However, the landscape enhancement measures would remain, providing long-term benefits to the local landscape character of the area.

CUMULATIVE AND IN-COMBINATION EFFECTS

- 5.12. None of the viewpoints or visual receptors have been assessed as subject to significant cumulative effects.
- 5.13. The construction and decommissioning phase of the Proposed Development is likely to occur in isolation, and not cumulatively with any other currently known developments in the area. For that reason, there would be no significant effects.

CONCLUSION

- 5.14. The assessment has concluded that there would be some localised significant visual effects due to proximity and direct nature of views, gained from Public Rights of Way within the Site.
- 5.15. Overall, the Proposed Development has been considered to respond well to the environment, mitigating visual effects, while not compromising the requirements and technical aspects of the solar energy scheme.

6. BIODIVERSITY

- 6.1. An assessment has been undertaken to enable the determination of the likely ecological effects of the Proposed Development. The assessment compiles information from a Desk Study, Extended Phase 1 Habitat Survey, Badger Survey Wintering and Breeding Bird Surveys, Otter and Water Vole Surveys and Great Crested Newt survey; enabling the determination of the likely ecological effects of the Proposed Development.
- 6.2. The assessment establishes the likely presence of protected or notable species, identifies statutory designated sites for nature conservation in the vicinity of the Proposed Development, and evaluates the overall conservation status of the Application Site. The potential effects on identified ecological features including designated sites and protected and notable species is assessed in line with current guidance, and appropriate mitigation and enhancement measures are described.
- 6.3. The Site is not located within any statutory designated site for nature conservation. A number of nationally and internationally designated sites are located within 5km – 10km of the site.
- 6.4. There are records for twelve non-statutory designated sites (all Wildlife Sites or Local Wildlife Sites (LWS)) within 2km of the Site boundaries, of which the closest, Coed Cord LWS, is within 200m of the Application Site.

ASSESSMENT OF LIKELY SIGNIFICANT EFFECTS

- 6.5. The assessment concluded that there was the potential for significant adverse effects on great crested newts, during the construction phase only. Specific mitigation measures have been identified as a result.
- 6.6. No other significant adverse effects were identified on statutory or non-statutory designed sites or habitats, or on protected or notable species, including bats, birds, or other species in relation to the Proposed Development, or in-combination with other proposed developments in the wider landscape.
- 6.7. Other short term, temporary, and/or not significant effects identified through the assessment have also been addressed as part of the iterative design process or standard good practice construction and site management measures
- 6.8. New habitats will be created and existing features strengthened as part of the operational solar farm development and additional areas of land without solar panels will be enhanced for biodiversity resulting in a significant biodiversity benefit at the local scale.

MITIGATION AND ENHANCEMENT

- 6.9. Mitigation and enhancement measures will include the following:

- Pre-construction surveys for protected species and to inform additional avoidance or mitigation requirements during the construction phase;
- Biodiversity protection measures (construction phase) to be included in a Construction Environmental Management Plan (CEMP);
- Appointment of Project Ecologist/ Ecological Clerk of Works (ECoW);
- Great crested newt Mitigation Strategy, including confirmation of European Protected Species Mitigation licence (post-consent) granted by Natural Resources Wales (NRW) before works commence;
- Hedgerows and trees will be retained and protected during construction and operation in-line with BS 5837:2012 Trees in relation to design, demolition and construction;
- The operational facility will not be lit (apart from emergency lighting associated with the battery storage facility) to avoid illuminating flightlines and foraging areas used by bats, in particular watercourse and ditch corridors, woodland edges and the hedgerow network. The lighting design (operational phase) will be in line with Bat Conservation Trust/Institute of Lighting Professionals guidance .
- Maintaining suitable exclusion buffers around streams/ditches, woodland, hedgerows, trees and ponds – all habitats likely to be most valuable to protected and notable species;
- Retaining and protecting on-site ponds to maintain aquatic habitat for amphibians, specifically great crested newts;
- Avoiding higher value habitats and retention of such habitats where they occur on-site, such as woodland, hedgerows, ponds and trees; and
- Habitat enhancements to include:
 - » Creation of swale habitat;
 - » Native species rich hedgerow planting and infilling to strengthen existing and gappy hedgerows;
 - » Grassland seeding underneath the solar panels to create species diverse grassland; and
 - » Creation of species diverse field margins around the development site and blocks of Wildflower meadow areas.

CUMULATIVE AND IN-COMBINATION EFFECTS

- 6.10. No cumulative or in-combination effects are anticipated in relation to the Proposed Development.

7. TRANSPORT & TRAFFIC

CONCLUSION

- 6.11. With the proposed mitigation measures in place as described, the Proposed Development will not result in any significant adverse effects on any habitats or species, or on statutory and non-statutory designated sites.
- 6.12. Minor (but not significant) positive effects are anticipated in relation to foraging, commuting, roosting and breeding bats and birds as well as for badgers, hazel dormice and reptiles, if present, as a result of habitat creation and diversification.

- 7.1. The traffic and transport related effects relating to the Proposed Development have been assessed.
- 7.2. The development site is located to the west of the A525, which routes north to south along the eastern boundary of the site where it abuts the carriageway in places.
- 7.3. Construction access will be provided via two separate access junctions served by the A525 on the south-eastern and north-eastern site boundary. The south eastern site access is an existing priority T-junction serving Gwernigron Farmhouse. The eastern site access is an existing gated field access which serves open land. Both accesses are suitable for construction traffic.
- 7.4. Once operational, the eastern access will revert to its current arrangement and the south-eastern access will be retained for operational requirements.

ASSESSMENT OF LIKELY SIGNIFICANT EFFECTS

- 7.5. In total the construction of the Proposed Development will result in approximately 2,055 deliveries (4,110 movements) to the site, spread over the 27 week construction period. The deliveries will be spaced across the construction period, with an average of thirteen deliveries (26 two-way vehicular movements) taking place each day over the 27 week construction period.
- 7.6. There are three Denbighshire County Council Public Rights of Way (PRoW) which route across the site (201/8, 208/20 and 208/18). It is proposed that two of the existing PRoWs which currently pass through the site will be permanently diverted via a separate application process.
- 7.7. It is not anticipated that the trips generated by the construction of the development proposals will have a significant impact on the local and strategic road networks.
- 7.8. Solar Farms when operational do not give rise to significant traffic movements. During operation, solar farms have limited associated traffic generation, with visits for maintenance purposes using light vans approximately 10-20 times per year.

MITIGATION AND ENHANCEMENT

- 7.9. A Construction Traffic Management Plan has been prepared and sets out measures including management of deliveries, delivery time restrictions, construction warning signs and management of Public Rights of Way to minimise construction based traffic impacts.
- 7.10. In order to ensure safe access and egress for vehicles during construction it is proposed to cone off the nearside carriageway of the A525. Banksmen will be deployed as necessary and appropriate signage will also be erected.
- 7.11. These measures will be agreed between the appointed contractor and Denbighshire County Council as the Local Highway Authority.

CUMULATIVE AND IN-COMBINATION EFFECTS

- 7.12. No significant cumulative or in-combination effects have been identified.

CONCLUSION

- 7.13. It is not anticipated that the trips generated by the construction of the Proposed Development will have a significant impact on the local and strategic road networks.
- 7.14. It is concluded that suitable routing and measures can be provided in conjunction with traffic associated with construction activities.

8. HUMAN HEALTH

- 8.1. An assessment of the likely effects of the Proposed Development on human health has been undertaken.

ASSESSMENT OF LIKELY SIGNIFICANT EFFECTS

- 8.2. Noise emissions from solar electrical equipment and battery energy storage equipment has been assessed for its impact on both day and night environment. The potential for changes in noise levels was assessed at the nearest residences around the site.
- 8.3. There will be no significant noise related issues associated with the proposed development due to the proposed mitigation measures during the construction period. The operation of the solar farm and energy storage facility would generate acceptable levels of noise at surrounding properties both during the day and night-time periods. Therefore, there would not be any risk to human health as a result of noise.
- 8.4. The key considerations in terms of air quality are the emissions associated with the construction phase traffic of the development. The construction works have the potential to generate additional vehicles on the local road network, the main air pollutants of concern related to road traffic emissions are nitrogen oxides, ammonia, nutrient nitrogen deposition and acid nitrogen deposition.

- 8.5. There will be no significant air quality related issues associated with the proposed development because of the relatively low number of vehicle movements associated with the development's construction. Therefore, there would not be any risk to the population and human health as a result of air quality.
- 8.6. The potential for the energy storage component to pose a fire risk was assessed. Based on the design of the scheme and safety checks which are proposed, such as regulating the containers with heating and cooling equipment and quarterly routine maintenance inspections, it is not considered that there would be any risk to human health as a result of the generation or storage of electricity on the proposed site.

MITIGATION AND ENHANCEMENT

- 8.7. A series of mitigation measures will be included within a Construction Management Plan to reduce potential noise and air quality emissions associated with the construction period. These measures include damping down any stockpiles of earth and limiting construction hours to the daytime.
- 8.8. The measures which will be put in place to address any safety concerns around the energy storage component of the project

have been addressed within an 'Energy Storage Management Plan'. The key points are outlined below.

- 8.9. Maintenance visits to the site will be made throughout the year (c.10-20 visits per year). The maintenance visits will involve inspections of the equipment on site to ensure all equipment is kept in a good state to minimise any potential risk to human health.
- 8.10. The periodic maintenance plan will include the cleaning of the containers, and the changing of filters of the heating and cooling system. A monitoring system will monitor the state of every module and will not allow the battery or any individual component to reach a dangerous state which could lead to safety issues. If a fault arises the remote monitoring system will allow for a remote shutdown to be initiated.

CONCLUSION

- 8.11. The design of the scheme as well as the measures set out in the and the Energy Storage Safety Management Plan will ensure there are no significant risks to human health as a result of the Proposed Development.

9. AIR QUALITY

- 9.1. An assessment of the air quality effects of the Proposed Development as a result of the construction phase has been carried out in accordance with best practice guidance.
- 9.2. Whilst the operation of the solar farm will not result in any direct emissions to air, the construction works have the potential to generate additional vehicles on the local road network, which may impact on any ecological habitats adjacent to the roads used by construction vehicles.

LIKELY SIGNIFICANT EFFECTS

- 9.3. The nearest internationally-designated site is Liverpool Bay Special Protection Area (SPA) which is located 6.6km northwest of the application site. The nearest locally-designated site, an unnamed Ancient Woodland (AW) is located 300m east of the application site. Rhuddlan Pond Local Nature Reserve (LNR) and an unnamed Ancient Woodland are within 200m of the main roads used by construction vehicles.
- 9.4. The construction period will last up to 27 weeks. On this basis, any effect from construction traffic on designated ecological sites will be transient, any changes to ambient air quality conditions will re-equilibrate within a short period of time following completion of the construction phase, and there will be no long-term deterioration in conditions.

- 9.5. The construction works will generate 2,055 one-way Heavy Duty Vehicle (HDV) trips and 4,698 one-way Light Duty Vehicle (LDV) trips.
- 9.6. The construction phase will, therefore, generate Annual Average Daily Traffic flows of 11 HDVs and 26 LDVs on the main identified construction route. Beyond this route, vehicles will distribute across the local highways network, such that flows on other roads will be lower.
- 9.7. Rhuddlan Pond Local Nature Reserve (LNR) and an unnamed Ancient Woodland lie within 200 m of the construction route. The construction phase will generate Annual Average Daily Traffic flows of 11 HDVs and 26 LDVs; these are well below the screening criteria of 200 HDVs and 1,000 LDVs presented in the Design Manual for Roads and Bridges (DMRB) guidance. As the construction phase will only last for 27 weeks, any air quality effects on designated sites will be temporary in nature.
- 9.8. Beyond the nearby roads, traffic will distribute across the local highways network, such that construction traffic flows on other roads will be even lower.
- 9.9. Natural Resources Wales has previously indicated that it accepts the use of these criteria for the protection of designated ecological habitats in Wales. On this basis, the impact of the construction of the Proposed Development can be considered to be neutral in terms of local air quality and no further work is needed.

10. RISK OF MAJOR ACCIDENTS

- 10.1. The development is not considered likely to cause a significant accident or disaster risk during either the construction, operation and decommissioning phases.
- 10.2. The Proposed Development would have the ability to generate and store electricity, as a battery energy storage facility is proposed towards the southern boundary of the site. An Energy Storage Safety Management Plan has been prepared. The Energy Storage Safety Management plan sets out the safety processes which will be implemented to ensure that any potential fire risk at the site would not lead to a major incident.
- 10.3. The Applicant has taken the decision that the battery energy storage facility will consist of Lithium Iron Phosphate storage modules, a popular Lithium Ion technology that is well known for being inherently safe (compared to other types of lithium).
- 10.4. The battery energy storage facility will consist of multiple outdoor rated enclosures containing battery modules placed in series to form a rack, racks placed beside each other in parallel, heating/cooling system, fire detection and prevention system, and a Battery Management System to ensure the safe management of a single rack/enclosure (and to isolate each rack/enclosure by opening contactors). The Energy Management System forms the second layer of protection, ensuring all rack/enclosure level are operating within the safe limits, and allows it to be remotely operated and monitored.
- 10.5. The majority of the development comprises photovoltaic panels which are inert. Electrical infrastructure including transformers, inverters batteries and cabling will be located across the development site. All equipment on site will be subject to routine maintenance and is therefore not considered to pose a significant risk to creating a major accident.

11.SUMMARY

11.1. The ES demonstrates that there are no overriding environmental constraints which would preclude the Proposed Development on the Application Site. The design of the proposed development has taken account of the likely significant environmental effects and where necessary, mitigation measures form an integral part of the Proposed Development to ensure that the environment is suitably protected.

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DESIGN



ENVIRONMENT



PLANNING



ECONOMICS



HERITAGE

Pegasus Group
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