



Galileo 03 Ltd.

Mynydd Ty-talwyn Energy Park - Environmental Statement Volume III

Appendix 4.2: High Level Abnormal Load Delivery Route
Assessment

Project Reference: 663870

NOVEMBER 2025

RSK

RSK GENERAL NOTES

Project No.: 663870

Title: Mynydd Ty-talwyn Energy Park

Client: Galileo 03 Ltd.

Date: April 2025
November 2025 (Version 1)

Office: Bristol

Status: Rev 01 – DNS Application Submission

Revision	Date	Author	Project Manager Review	Technical Review
01 – PAC Submission	April 2025	FP	JB	SP
02 – DNS Submission	November 2025	KS	JB	SP

RSK Environment Ltd (RSK) has prepared this report for the sole use of the client, showing reasonable skill and care, for the intended purposes as stated in the agreement under which this work was completed. The report may not be relied upon by any other party without the express agreement of the client and RSK. No other warranty, expressed or implied, is made as to the professional advice included in this report.

Where any data supplied by the client or from other sources have been used, it has been assumed that the information is correct. No responsibility can be accepted by RSK for inaccuracies in the data supplied by any other party. The conclusions and recommendations in this report are based on the assumption that all relevant information has been supplied by those bodies from whom it was requested.

No part of this report may be copied or duplicated without the express permission of RSK and the party for whom it was prepared.

Where field investigations have been carried out, these have been restricted to a level of detail required to achieve the stated objectives of the work.

This work has been undertaken in accordance with the quality management system of RSK Environment Ltd.

Galileo 03 Ltd.

Mynydd Ty-talwyn Energy Park - Environmental Statement Volume III
663870

CONTENTS

1	INTRODUCTION	1
1.1	Background	1
1.2	Scoping Direction	1
2	PROPOSED AIL DELIVERY ROUTE, ENVIRONMENTAL CONSTRAINTS AND LIKELY EFFECTS	3
2.1	Proposed AIL Delivery Route	3
2.2	Environmental Constraints and Likely Effects	3
3	CONCLUSION.....	16

1 INTRODUCTION

1.1 Background

- 1.1.1 This report has been prepared by RSK Environment on behalf of Galileo 03 Ltd (part of Galileo Empower UK Ltd) (hereafter referred to as 'Galileo' or 'the Applicant'), who is seeking to obtain full planning permission for the construction, operation and decommissioning of the Mynydd Ty-talwyn Energy Park (hereafter referred to as the 'Proposed Development'), located north of Bridgend, south Wales.
- 1.1.2 The Proposed Development comprises the construction, operation, and subsequent decommissioning, of up to six wind turbines, ground mounted solar photovoltaic (PV) modules, one project substation and ancillary infrastructure works.
- 1.1.3 The delivery of the wind turbine components constitutes Abnormal Indivisible Loads (AILs). A Route Feasibility Study considering the various route options, and preferred routes, for AILs to the Site, is provided in **Environmental Statement (ES) Volume III, Appendix 12.2: Route Feasibility Study**.
- 1.1.4 The Proposed Development will utilise two AIL routes to the Site, as illustrated at **ES Volume IV, Figure 12.2: Abnormal Loads Routes**. The Applicant will obtain any necessary highway upgrades consents under the Highways Act 1990 and, if necessary, planning permission via a separate planning application to the relevant Local Planning Authority.

1.2 Scoping Direction

- 1.2.1 To inform the detail included within the ES, the Applicant has sought a Scoping Direction from Planning and Environment Decisions Wales (PEDW) (**ES Volume III, Appendix 1.2: Scoping Direction**). The Scoping Direction requested that an assessment of the proposed construction access route to Site be undertaken, as set out below.

"In accordance with the advice from consultees, PEDW confirms the applicant should provide details of all required AIL movements along the trunk road network and should include documented trial runs demonstrating the suitability of the entire transport route to the site (and in reverse for decommissioning)

...

Should trees or hedgerows require removal as part of these works, this impact should also be assessed in the ES."

- 1.2.2 Neath Port Talbot Council noted in their response to the Scoping Direction that:

"...It is strongly recommended that the applicants seek pre-application advice as soon as possible if the development's AIL route is to pass through the Authority's highway network to discuss a possible route, a dry run requirement, existing road condition surveys and the specific details of any highway road improvements necessary as these will need to be fully assessed as part of any EIA that is carried out."

- 1.2.3 Details of the likely AIL movements, and any physical mitigation works has been set out in **ES Volume III, Appendix 12.2: Route Feasibility Study**. This document presents a proportionate assessment of the potential environmental effects of the proposed AIL delivery routes, namely Routes two and five as set out in the in the Route Feasibility Study.

2 PROPOSED AIL DELIVERY ROUTE, ENVIRONMENTAL CONSTRAINTS AND LIKELY EFFECTS

2.1 Proposed AIL Delivery Route

- 2.1.1 The proposed Port of Entry (PoE) for delivery of the wind turbine components would be the Port of Swansea. The two routes to Site are detailed below:

PoE to M4 Junction 36

- Loads would depart from the PoE and access the A483 Fabian Way (Eastbound) using a contraflow manoeuvre;
- Loads would proceed eastbound and would join the M4 at Junction 42;
- Loads would continue southeast along the M4; and
- Loads would exit off the M4 at Junction 36.

M4 Junction 36 to North-eastern Site Entrance

- Loads would take the first exit to join the A4063, and follow this through Sarn and Tondy towards the WEPA UK before turning left into the Site at the Northern Site Entrance.

M4 Junction 36 to Southern Site Entrance

- Loads would take the first exit to join the A4063;
- Loads continue along the A4063 and take the second exit at the A4063/B4281 roundabout, joining the B4281 westbound;
- Loads follow the B4281 and turn right onto the Fountain Road; and
- Loads follow the Fountain Road and turn right onto New Road to reach the Southern Site Entrance.

2.2 Environmental Constraints and Likely Effects

- 2.2.1 Works required at each Point of Interest (PoI), as detailed within **ES Volume III, Appendix 12.2: Route Feasibility Study**, range from minor vegetation trimming and/or street furniture removal to construction of additional overrun areas for the delivery vehicles. **Table 2.1**, **Table 2.2** and **Table 2.3**, below detail the environmental constraints at each PoI and identify the likely effects. The environmental effects relating to transport and movement are not considered as part of the high-level assessment reported in this document, as the effect of AILs has been considered as part of **ES Volume II, Chapter 12: Traffic and Movement**. Whilst swept path analysis has been undertaken for both a superwing carrier and blade lifter, it is anticipated that a blade lifter would be used to transport the blades from the port to the Site. Therefore, impacts associated with their movements have been considered. Further detail would be provided in any subsequent planning application.

Table 2.1 Common Route - PoE to M4

POI	Route Location	Summary of Physical Mitigation Works	Environmental Constraints, Likely Effects and Potential Mitigation
C1	Port Egress	Trailer over-sails vegetation. Minor physical alterations required to over-sail safely and join A483.	No environmental constraints identified within the vicinity of the works (within 50 m). No environmental effects anticipated.
C2	A483 / Fford Amazon Rdbt	Trailer over-sails vegetation. Temporary removal of street signage, traffic signal and cutting back of vegetation required.	Works in close proximity to Crymlyn Burrows Site of Special Scientific Interest (SSSI), however works are minor and would be within the highway boundary and therefore would not impact the SSSI. Vegetation clearance is anticipated to be limited to roadside verges and would be reinstated following the works. Any effects would therefore be short-term and reversible.
C3	M4 Slip Road	Trailer over-sails vegetation. Temporary removal of street furniture and cutting back of vegetation required.	Works in close proximity to Earlswood Road Cutting and Ferryboat Inn Quarries SSSI, however works would be minor and within highway boundary and therefore would not impact the SSSI. Vegetation trimming is not anticipated to result in an environmental effect.

Table 2.2: Route 2 - M4 Junction 36 to Northern Entrance

POI	Route Location	Summary of Physical Mitigation Works	Environmental Constraints, Likely Effects and Potential Mitigation
2.1	M4 Junction 36 Off-slip to A4063/A4061 Rdbt	Trailer oversails vegetation. Tree, hedge, vegetation, signage and street lighting removal required. Vehicle travels over central reserve. Signage and street lighting will need to be temporarily removed to allow vehicle/loads to oversail safely. Vegetation will need to be trimmed.	Vegetation removal (grass and trees) and vegetation trimming (trees) adjacent to the road would be required to facilitate the works. Prior to any vegetation removal, necessary ecology surveys will be undertaken to identify whether it supports protected or notable species, such as birds and bats. Any vegetation removal would be undertaken outside of the nesting period (typically March to August inclusive) where possible. If this is not possible, a detailed inspection of the vegetation to be removed would be undertaken by a suitably qualified ecologist no more than 24 hours prior to any works being undertaken. Should it be required, a licence from Natural Resources Wales would be obtained to complete the works. Such licences would require the Applicant to agree a method statement and any mitigation required with Natural Resources Wales. Cefn Hirgoed SINC in close proximity, however, all vegetation trimming works are within highway and on the opposite side of the road and therefore no impacts are likely.

POI	Route Location	Summary of Physical Mitigation Works	Environmental Constraints, Likely Effects and Potential Mitigation
2.2	B4281/ A4063 Rdbt	Vehicle over-sail/overrun centre island and access/egress of roundabout. Street lighting and signage require temporary removal. Vegetation requires cutting back. Vehicle travels over centre of roundabout and over central reserve. Vehicle travels over island. Signage removal, lighting removal, tree trimming/removal and feeder pillar removal will be required.	Vegetation removal (grassland and trees) and trimming would be required for vegetation adjacent to the road to facilitate the works. Prior to any vegetation removal, necessary ecology surveys will be undertaken to identify whether it supports protected or notable species, such as birds and bats. Any vegetation removal would be undertaken outside of the nesting period (typically March to August inclusive) where possible. If this could not be avoided, a detailed inspection of the vegetation to be removed would be undertaken by a suitably qualified ecologist no more than 24 hours prior to any works being undertaken. Should it be required, a licence from Natural Resources Wales would be obtained to complete the works. Such licences would require the Applicant to agree a method statement and any mitigation required with Natural Resources Wales. No environmental constraints identified within the vicinity of the works (within 50 m).
2.3	A4063 / Bryn Road Junction	Load/vehicle over-sail/overrun at multiple locations. Street furniture, traffic bollards, lighting, bus stop flag, illuminated bollard, traffic signal and guard	Verge planting and trees would require removal. As set out above, prior to any clearance of vegetation surveys would

POI	Route Location	Summary of Physical Mitigation Works	Environmental Constraints, Likely Effects and Potential Mitigation
		railings are required to be temporarily removed at this location to allow loads to over-sail/overrun safely. Vegetation will require removal. Potential adjoining land required at this location.	be undertaken and licences obtained if required. No environmental constraints identified within the vicinity of the works (within 50 m).
2.4	A4063 Maesteg Rd, Tondu	Loads will oversail the western edge of the A4063.	No environmental constraints identified within the vicinity of the works (within 50 m).
2.5	A4063 Maesteg Rd, north of Tondu	Loads will oversail the western edge of the A4063. Vegetation needs to be trimmed and/or removed. The tree canopy above the A4063 will have to be trimmed and/or removed to allow safe blade passage.	Works are approximately 25 m from the ordinary watercourse Llynfi River / Flood Zone 3 (Rivers) and 10 m from Flood Zone 3 (surface water and small watercourses). However, works are minor and outside these areas. No environmental effects are anticipated. Vegetation removal (grass and trees) and vegetation trimming (trees) adjacent to/ above the road would be required to facilitate the works. Prior to any vegetation removal, necessary ecology surveys will be undertaken to identify whether it supports protected or notable species, such as birds and bats. Any vegetation removal would be undertaken outside of the nesting period (typically March to August inclusive) where possible. If this is not possible, a

POI	Route Location	Summary of Physical Mitigation Works	Environmental Constraints, Likely Effects and Potential Mitigation
			detailed inspection of the vegetation to be removed would be undertaken by a suitably qualified ecologist no more than 24 hours prior to any works being undertaken. Should it be required, a licence from Natural Resources Wales would be obtained to complete the works. Such licences would require the Applicant to agree a method statement and any mitigation required with Natural Resources Wales.
2.6	A4063, Coytrahen	Blade will oversail the western edge of the A4063. Load (tower) will oversail eastern edge of the A4063. Trimming and/or removal of vegetation will be required. Overhead lines will have to be temporarily grounded and/or re-routed to allow safe passage.	Works are approximately 31 m from the ordinary watercourse Llynfi River / Flood Zone 3 (rivers). However, works are minor and outside these areas. No environmental effects are anticipated. Prior to any vegetation removal, necessary ecology surveys will be undertaken to identify whether it supports protected or notable species, such as birds and bats. Any vegetation removal would be undertaken outside of the nesting period (typically March to August inclusive) where possible. If this is not possible, a detailed inspection of the vegetation to be removed would be undertaken by a suitably qualified ecologist no more than

POI	Route Location	Summary of Physical Mitigation Works	Environmental Constraints, Likely Effects and Potential Mitigation
			24 hours prior to any works being undertaken. Should it be required, a licence from Natural Resources Wales would be obtained to complete the works. Such licences would require the Applicant to agree a method statement and any mitigation required with Natural Resources Wales.
2.7	A4063, Coytrahen	Transporters (incl. loads) will oversail and over-run the splitter island on the A4063. Signage will have to be temporarily removed and kerbs to be protected. Loads will oversail the western edge of the A4063. Proximity to the existing brick wall and building will have to be confirmed during test run and through topographical survey.	No environmental constraints identified within the vicinity of the works (within 50 m). No environmental effects anticipated.
2.8	A4063, north of Coytrahen	Blade will oversail the eastern edge (outside bend) of the A4063. Vegetation to be trimmed and/or removed. Proximity to lighting columns to be confirmed, potential for temporary removal.	Prior to any vegetation removal, necessary ecology surveys will be undertaken to identify whether it supports protected or notable species, such as birds and bats. Any vegetation removal would be undertaken outside of the nesting period (typically March to August inclusive) where possible. If this is not possible, a

POI	Route Location	Summary of Physical Mitigation Works	Environmental Constraints, Likely Effects and Potential Mitigation
			detailed inspection of the vegetation to be removed would be undertaken by a suitably qualified ecologist no more than 24 hours prior to any works being undertaken. Should it be required, a licence from Natural Resources Wales would be obtained to complete the works. Such licences would require the Applicant to agree a method statement and any mitigation required with Natural Resources Wales.
2.9	Left hand turn from A4063 into Northern Site Entrance	Removal of existing vegetation/trees, as well as adjoining land required. Installation of new upgraded access is required.	Works are approximately 20 m from Flood Zone 3 (surface water and small watercourses) and a small unknown watercourse. Prior to any vegetation removal, necessary ecology surveys will be undertaken to identify whether it supports protected or notable species, such as birds and bats. Any vegetation removal would be undertaken outside of the nesting period (typically March to August inclusive) where possible. If this is not possible, a detailed inspection of the vegetation to be removed would be undertaken by a suitably qualified ecologist no more than 24 hours prior to any works being undertaken. Should it be required, a licence from Natural Resources Wales

POI	Route Location	Summary of Physical Mitigation Works	Environmental Constraints, Likely Effects and Potential Mitigation
			would be obtained to complete the works. Such licences would require the Applicant to agree a method statement and any mitigation required with Natural Resources Wales. This forms part of the Proposed Development, and impacts have been assessed within Volume II of the ES.

Table 2.3 Route 5 – M4 Junction 36 to Southern Entrance

POI	Route Location	Summary of Physical Mitigation Works	Environmental Constraints, Likely Effects and Potential Mitigation
5.1	South Eastern Approach via B4281	Loads will oversail the central reserve on the eastern approach to the roundabout junction. Loads will oversail the southern edge and splitter island on the carriageway on exit of the roundabout junction (joining B4281). A traffic bollard and traffic sign will need to be temporarily removed to allow loads to over-sail safely. Loads will over-sail the centre island of the roundabout junction. Three chevron signs and two traffic signs will need to be temporarily removed to allow loads to over-sail safely.	No environmental constraints identified within the vicinity of the works (within 50 m). No environmental effects anticipated.
5.2	South Eastern Approach via B4281	No constraints are present at this location.	No environmental effects anticipated.

POI	Route Location	Summary of Physical Mitigation Works	Environmental Constraints, Likely Effects and Potential Mitigation
5.3	South Eastern Approach via B4281	Overhead lines are present at this location. Blade Lifter loads may have to be lowered to horizontal position to navigate this obstacle according to the required height clearances. Alternatively, the overhead lines may require to be temporarily taken down.	Close proximity to, Aberkenfig West and Pennsylvania Wood SINC and Ancient Woodland, however, works relate to the existing overhead lines and therefore are anticipated not to have an impact on the designated sites. No environmental effects anticipated.
5.4	South Eastern Approach via B4281	Loads will oversail the southern edge of the carriageway. Overhead lines are present at this location. The Blade Lifter loads might have to be lowered to a horizontal position to navigate with the available height clearance or overhead lines may need to be temporarily taken down or rerouted to achieve required height clearances.	Close proximity to, Pennsylvania Wood SINC and Ancient Woodland; a small area of vegetation trimming may be required of younger trees/shrubs lining the road. No significant impact anticipated on SINC or Ancient Woodland. No environmental effects anticipated.
5.5	South Eastern Approach via B4281	Loads will oversail the southern edge of the carriageway. Overhead vegetation will need to be trimmed and/or removed to achieve required height clearances and allow loads to navigate safely. Overhead lines are present at this location along the southern edge of the carriage. Blade lifter loads may need to lower to horizontal position to safely navigate within available height clearances or overhead lines need to be temporarily taken down or rerouted.	Close proximity to, Pennsylvania Wood SINC and Ancient Woodland; however, required vegetation removal/trimming will be outwith these areas and therefore are anticipated not to have an impact on the designated sites No environmental effects anticipated.
5.6	B4281/Fountain Road Junction	Loads will oversail/overrun the eastern and southern edges of the carriageway. Vegetation will need to be trimmed and/or removed between the B4281 and the	Main River Nant Cynffig is situated to the south of the railway and the upgrade works would need to cross the river.

POI	Route Location	Summary of Physical Mitigation Works	Environmental Constraints, Likely Effects and Potential Mitigation
		railway, and road signs, safety barriers and level crossing signs and signals will need to be temporarily removed to allow loads to navigate right turn safely. A load bearing surface will be required along the eastern and southern edges of the carriageway to allow loads to overrun safely and protect the track infrastructure. Safety fence and crossing signs will need to be removed, poles and road signs removed.	Pollution prevention methods would be followed throughout the works to minimise the potential for adverse effects to the watercourse and, prior to the works an appropriate permit (Flood Risk Activity Permit) or exemption would be obtained from Natural Resources Wales. Prior to vegetation clearance, necessary ecology surveys will be undertaken to identify whether the vegetation supports protected or notable species, e.g., birds and bats. Vegetation removal would be undertaken outside of the nesting period (typically March to August inclusive) where possible. If this could not be avoided, due for example, to the availability of Network Rail possessions, a detailed inspection of the vegetation to be felled for nesting birds would be undertaken by a suitably qualified ecologist no more than 24 hours prior to any works being undertaken. Should it be required, a licence from Natural Resources Wales would be obtained to complete the works. Such licences would require the Applicant to agree a method statement and any mitigation required with Natural Resources Wales Close proximity to Pennsylvania Wood SINC and Ancient Woodland; however, required works would be outwith these

POI	Route Location	Summary of Physical Mitigation Works	Environmental Constraints, Likely Effects and Potential Mitigation
			areas and therefore are anticipated not to have an impact on the designated sites. Close proximity to the Parc Slip Nature Park SINC to the north; however, works are anticipated to be confined to highway land and land under the control of Network Rail. It is therefore anticipated the Parc Slip SINC would not be directly affected. Furthermore, all works would be undertaken in line with best practice, minimising effects from lighting and noise as much as practicably possible to limit any disturbance.
5.7	Fountain Road/New Road Junction	Loads will overrun the eastern and western edges of the carriageway while performing right turn. Vegetation needs to be trimmed and/or removed, road signs and poles will need to be temporarily removed, and a load bearing surface will be required to allow loads to navigate left turn safely. Overhead lines are present at this location. Overhead lines need to be temporarily taken down or rerouted.	Close proximity to Nant Cwm-bach SINC however, required works would be outwith this area and therefore is anticipated not to have an impact on the designated site. Any vegetation trimming would be limited to that required to enable safe passage of the vehicles. Should the removal of trees be required, these would be checked by a suitability qualified ecologists, and appropriate mitigation proposed, to ensure there would be no effects on protected species.

POI	Route Location	Summary of Physical Mitigation Works	Environmental Constraints, Likely Effects and Potential Mitigation

3 CONCLUSION

- 3.1.1 A high-level assessment of the likely environmental impacts of the proposed ALL delivery routes for the Proposed Development has been undertaken. From this assessment, it is considered that the likely effects would be acceptable through the use of appropriate design, best practice construction methods, implementation of well-established mitigation and completing the works in accordance with any necessary licences.