

Glen Earrach Pumped Storage Hydro

Grid Connection Assessment: Context Document

April 2026

Quality information

Prepared by	Checked by	Verified by	Approved by
AC Senior Engineer	MC Project Manager	DL Technical Director	MC Project Manager

Issue History

Issue	Issue date	Details	Authorized	Name	Position
1	April 2026	Initial submission	MC	MC	Project Manager

© 2026 AECOM Limited. All Rights Reserved

This document has been prepared by AECOM Limited ("AECOM") for sole use of our Client (Glen Earrach Energy Limited) in accordance with generally accepted consultancy principles, the budget for fees and the terms of reference agreed between AECOM and the Client. Any information provided by third parties and referred to herein has not been checked or verified by AECOM, unless otherwise expressly stated in the document. No third party may rely upon this document without the prior and express written agreement of AECOM.

Table of Contents

1.	Introduction	1
2.	Background to the Connection Route	1
3.	Assessment Assumptions	2
4.	Purpose and Scope of this Document.....	3
5.	Disciplines Assessed	3
6.	Disciplines for which no separate Technical Note has been prepared	4
7.	Summary of Conclusions	5
	Annex A.....	1

Figures

Figure A - Grid Connection Route	1
--	---

Tables

Table 1 Disciplines for which a Technical Note has been prepared.....	3
Table 2 Disciplines for which no Technical Note has been prepared.....	4
Table 3 Summary of conclusions across Technical Notes	5

1. Introduction

The Applicant, Glen Earrach Energy (GEE), has commissioned AECOM to assess the potential effects of a proposed grid connection (referred to as the Grid Connection Project), having regard to the cumulative assessment approach used in the Environmental Impact Assessment Report (EIAR) for the Glen Earrach Pumped Storage Hydro project (the Proposed Development). An indicative connection route has been identified by the Applicant between the substation forming part of the Proposed Development and the indicative connection point at the Bingally Substation to the west (hereafter the Connection Route). For the purposes of this assessment, the Connection Route comprises an initial section of underground cable from the GIS switchyard to the head of the Allt Fèith an t-Seilisdeir Glen, followed by an overhead line section extending westwards towards Bingally Substation. The Connection Route is shown on Figure A and at Annex A.

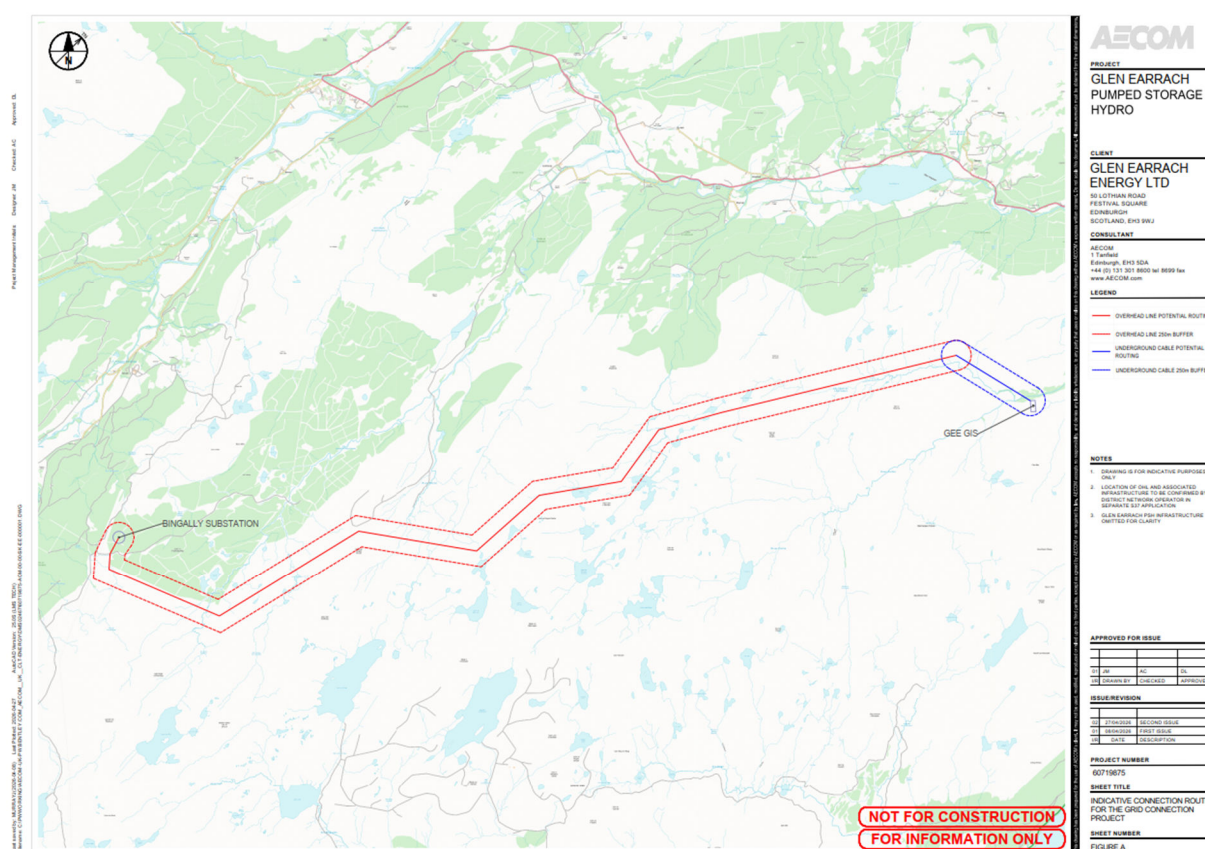


Figure A - Grid Connection Route

2. Background to the Connection Route

The Applicant previously held a grid connection offer from the Energy System Operator (ESO) with a connection point at the future Bingally Substation. Subsequent to this, ESO has been replaced by the National Energy System Operator (NESO), which has been running a grid reform process known as TMO4+. As part of this process, the connection point previously advised as Bingally Substation has been amended such that it is now only indicative.

Control over the future transmission line routing to the connection point sits with SSEN Transmission as the relevant transmission owner. SSEN Transmission will be responsible for the development and consenting of the grid connection, which would include any required full Environmental Impact Assessment (EIA) as part of a future consenting process for the transmission line.

As described in the Additional Information to Chapter 3: Evolution of Design and Alternatives (paragraphs 3.4.9A–C), the GIS switchyard forming part of the Proposed Development was sited at the Design IV design stage (Post-Scoping, September 2024) to define a logical corridor towards the indicative connection point at Bingally Substation, taking advantage of the natural east–west orientation of the glens in the area.

The Applicant has, using knowledge of the transmission industry’s approach to routing, identified an indicative Connection Route design to inform the assessments presented in the accompanying Technical Notes.

For the purposes of these assessments, the indicative Connection Route comprises two elements. The first is an initial section of approximately 2 km of underground 400 kV cable (UGC), assumed to be installed by micro-tunnelling from the Proposed Development GIS switchyard northwards to the head of the Allt Fèith an t-Seilisdair Glen. The second is an overhead line (OHL) section of approximately 16 km continuing westwards towards Bingally Substation, following the natural screened east-west valley corridor.

Figure A and Annex A are intended to show the alignment of this indicative Connection Route for assessment purposes. The route shown therefore includes both the initial UGC section and the subsequent OHL section. Where a 350 m buffer is shown on the figure, this is intended only to illustrate the indicative route corridor considered in the development of the assessment and does not represent a fixed infrastructure width, construction corridor or permanent land take.

The indicative Connection Route to Bingally Substation developed by the Applicant provides a reasonable basis for the assessments that follow, being the best information available at this time.

3. Assessment Assumptions

The following common assumptions have been adopted for the purposes of the assessments presented in the accompanying Technical Notes:

- the 2 km UGC section will be installed by micro-tunnelling;
- access tracks and temporary working areas will be required in the vicinity of the Connection Route during construction;
- a permanent access track will be required along most of the overhead line section of the Connection Route;
- the construction period will be approximately three years.

Discipline-specific assumptions and embedded mitigation, where applicable, are set out in the relevant Technical Note.

For the avoidance of doubt, the assumptions set out above have been adopted for the purposes of the discipline-specific Technical Notes accompanying this document. In relation to Landscape and Visual effects, Chapter 6 of the EIAR already considered the cumulative effects of a direct overhead line connection to Bingally Substation on a worst-case basis. That assessment remains appropriate, and no separate further Technical Note has therefore been prepared for that topic.

4. Purpose and Scope of this Document

This document provides the common context for a pack of discipline-specific Technical Notes which together consider any likely significant effects of the Grid Connection Project, in the cumulative assessment context applied in the EIA Report (EIAR) for the Proposed Development.

Each accompanying Technical Note has been prepared by the relevant discipline author and should be read in conjunction with the corresponding chapter of the EIAR. The Technical Notes share a common introduction setting out the description of the Connection Route summarised above, together with any discipline-specific assumptions relevant to that assessment.

This document sets out:

- the disciplines for which a Technical Note has been prepared;
- the disciplines for which no further assessment has been undertaken, and the basis on which they have not been taken forward; and
- a summary of the overall conclusions reached across the assessments.

5. Disciplines Assessed

Technical Notes have been prepared for the following disciplines, each of which is provided as a discipline-specific document accompanying this context document.

Table 1 Disciplines for which a Technical Note has been prepared

Topic / Chapter	EIAR Chapter Reference
Terrestrial Ecology	7
Ornithology	8
Water Environment and Flood Risk	10 & 11
Cultural Heritage	12
Traffic and Transport	13
Noise and Vibration	14
Geology and Ground Conditions	15

Each Technical Note presents the relevant baseline information drawn from publicly available sources, identifies the embedded mitigation of the Connection Route assumed for the purposes of the assessment, applies the assessment methodology used in the corresponding EIAR chapter, and reaches a conclusion on the likelihood of significant effects having regard to the cumulative assessment approach used in the EIAR for the Proposed Development.

6. Disciplines for which no separate Technical Note has been prepared

For the disciplines listed in Table 2, no separate Technical Note has been prepared. The basis on which each topic has not been taken forward is set out in the corresponding entry. This includes topics for which no pathway for likely significant effects has been identified, as well as topics where the relevant effects have already been considered appropriately within the EIAR and no further discipline-specific assessment has been required.

Table 2 Disciplines for which no Technical Note has been prepared

Topic / Chapter	Basis
6. Landscape and Visual	No separate Technical Note prepared. The potential cumulative landscape and visual effects of the grid connection were already considered in Chapter 6 of the EIAR on a worst-case basis, assuming a direct overhead line connection to Bingally Substation. The Chapter 6 author has reviewed the indicative Connection Route and confirmed that no further assessment is required, as the original assessment remains appropriate.
9. Aquatic Ecology	Scoped out. No additional pathway for likely significant effects on aquatic ecology receptors has been identified beyond those already considered in the EIAR.
16. Socio-economics	Scoped out. No pathway for likely significant socio-economic effects arising from the Connection Route has been identified.
17. Climate	Scoped out. No pathway for likely significant climate effects arising from the Connection Route, additional to those already considered in the EIAR for the Proposed Development, has been identified.
18. Forestry	Scoped out. The indicative Connection Route has been identified so as to minimise interaction with forestry, and no pathway for likely significant effects on forestry receptors has been identified.

7. Summary of Conclusions

Each of the Technical Notes listed in Section 5 has reached a conclusion of no likely significant effects arising from the Grid Connection Project, in the cumulative assessment context of the EIAR for the Proposed Development. In addition, for the disciplines listed in Section 6, no further discipline-specific note has been required, either because no pathway for likely significant effects has been identified or because the topic has already been appropriately addressed in the EIAR. A summary of the conclusions is provided in Table 3.

Table 3 Summary of conclusions across Technical Notes

Topic	Conclusion
Terrestrial Ecology	No likely significant effects identified.
Ornithology	No likely significant effects identified.
Cultural Heritage	No likely significant effects identified.
Traffic and Transport	No likely significant effects identified.
Geology and Ground Conditions	No likely significant effects identified.
Water Environment and Flood Risk	No likely significant effects identified.
Noise and Vibration	No likely significant effects identified.

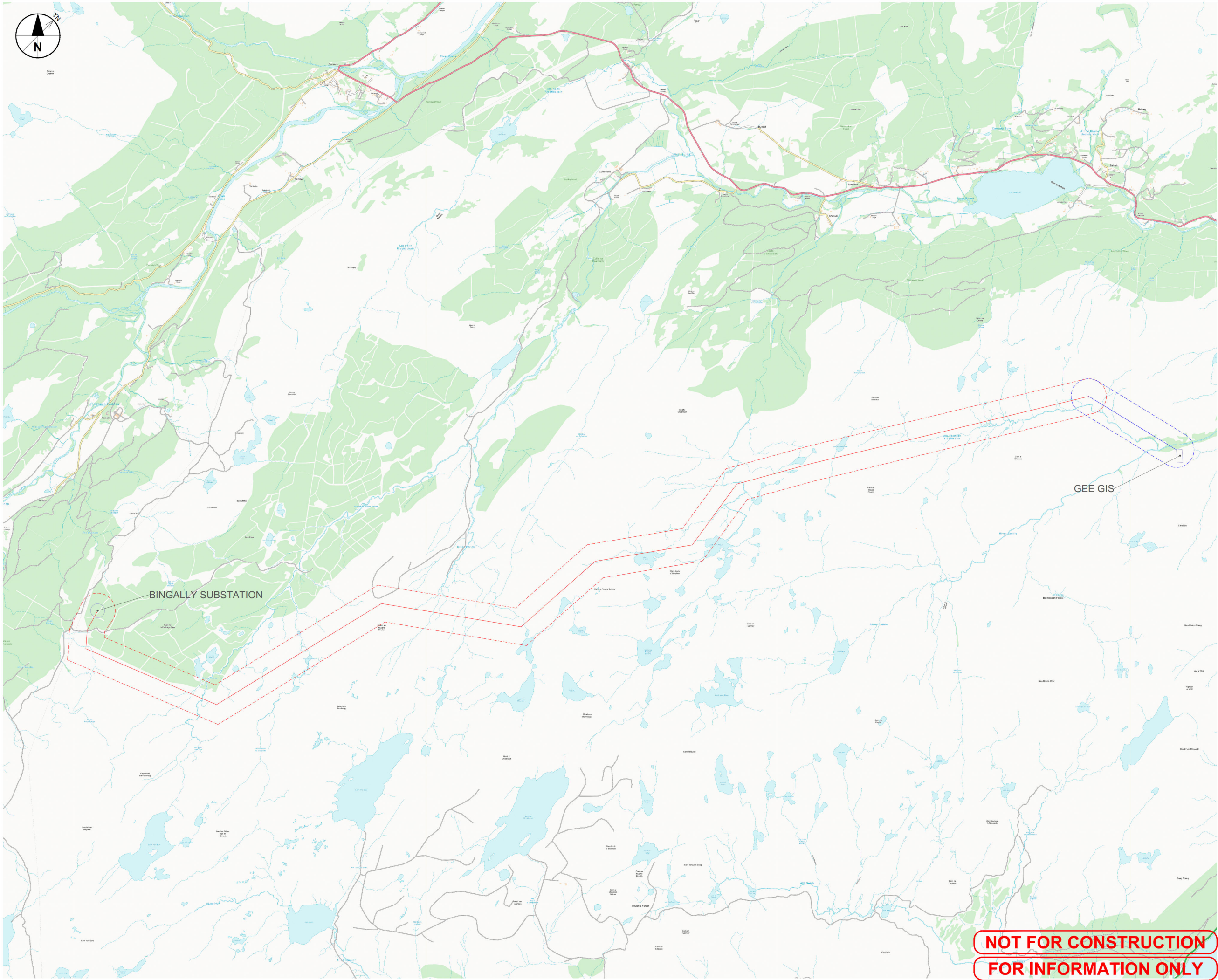
Having regard to the conclusions of the individual Technical Notes and to the disciplines for which no pathway for likely significant effects has been identified (Section 6), the assessment carried out indicates that there are no likely significant effects arising from the Grid Connection Project in the cumulative assessment context of the EIAR for the Proposed Development.

Annex A

Project Management Initials: Designer: JM Checked: AC Approved: DL

Last saved by: MURPHY (2026.04.08) Last Picked: 2026.04.27
Filename: C:\P\WORKING\AECOM\UK-P\BENTLEY\COM_AECOM_UK_CLT-ENERGY\DM2246760719875-ACM-00-00-SK-EE-000001.DWG

AutocAD Version: 25.0S (LMS TECH)



PROJECT

GLEN EARRACH
PUMPED STORAGE
HYDRO

CLIENT

GLEN EARRACH
ENERGY LTD

50 LOTHIAN ROAD
FESTIVAL SQUARE
EDINBURGH
SCOTLAND, EH3 9WJ

CONSULTANT

AECOM
1 Tanfield
Edinburgh, EH3 5DA
+44 (0) 131 301 8600 tel 8699 fax
www.AECOM.com

LEGEND

- OVERHEAD LINE POTENTIAL ROUTING
- OVERHEAD LINE 250m BUFFER
- UNDERGROUND CABLE POTENTIAL ROUTING
- UNDERGROUND CABLE 250m BUFFER

NOTES

- DRAWING IS FOR INDICATIVE PURPOSES ONLY
- LOCATION OF OHL AND ASSOCIATED INFRASTRUCTURE TO BE CONFIRMED BY DISTRICT NETWORK OPERATOR IN SEPARATE S37 APPLICATION
- GLEN EARRACH PSH INFRASTRUCTURE OMITTED FOR CLARITY

APPROVED FOR ISSUE

01	JM	AC	DL
I/R	DRAWN BY	CHECKED	APPROVED

ISSUE/REVISION

02	27/04/2026	SECOND ISSUE
01	08/04/2026	FIRST ISSUE
I/R	DATE	DESCRIPTION

PROJECT NUMBER

60719875

SHEET TITLE

INDICATIVE CONNECTION ROUTE
FOR THE GRID CONNECTION
PROJECT

SHEET NUMBER

FIGURE A

NOT FOR CONSTRUCTION
FOR INFORMATION ONLY

This drawing has been prepared for the use of AECOM's client. It may not be used, modified, reproduced or relied upon by third parties, except as agreed by AECOM or as required by law. AECOM accepts no responsibility, and denies any liability, whatsoever, to any party that uses or relies on this drawing without AECOM's express written consent. Do not scale this document. All measurements must be obtained from the stated dimensions.

