The Great Grid Upgrade

Eastern Green Link 3 (EGL 3) and Eastern Green Link 4 (EGL 4)

English Onshore Scheme Construction and Design Drawings

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May 2025

To assist with understanding these drawings please see the Guide to Consultation Documents and Drawings.

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Contents

Plan Title	Section No.
English Onshore Scheme Construction and Design Drawings	
Typical HVAC Construction and Design Drawings	01
Typical HVAC Construction Swathes	
Typical HVAC Joint Bay	
Typical HVAC Road Ducted Crossing	
Typical HVAC Watercourse Ducted Crossing	
Typical HVAC Trenchless Crossing Compound	
Typical HVDC Construction and Design Drawings	02
Typical HVDC Construction Swathes	
Typical HVDC Joint Bay	
Typical HVDC Transition Joint Bay	
Typical HVDC Road Ducted Crossing	
Typical HVDC Watercourse Ducted Crossing	
Typical HVDC Trenchless Crossing Compound	
General Construction and Design Drawings	03
Typical Cable Construction Compound	
Typical Circular Culvert	
Typical Bridge Crossing	
Typical Box Culvert	
Typical Bellmouth and Visibility Splay	

The Great Grid Upgrade

Eastern Green Link 3 (EGL 3) and Eastern Green Link 4 (EGL 4)

01. Typical HVAC Construction and Design Drawings

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01. Typical HVAC Construction and Design Drawings

Drawing Category	Plan Title	Drawing Reference		
English Onshore Scheme Construction and	Design Drawings			
Typical HVAC Construction and Design Drawings	Typical HVAC Construction Swathes	S42/TDD/SS/0002 Rev 01		
	Typical HVAC Joint Bay	S42/TDD/SS/0005 Rev 01		
Finantitie English Onshore Scheme Construction and Design Drawings Typical HVAC Construction and Design Drawings Typical HVAC Construction Typical HVAC Joint Bay Typical HVAC Road Ducted Typical HVAC Watercourse Typical HVAC Trenchless C	Typical HVAC Road Ducted Crossing	S42/TDD/SS/0008 Rev 01		
	Typical HVAC Watercourse Ducted Crossing	S42/TDD/SS/0009 Rev 01		
	Typical HVAC Trenchless Crossing Compound	S42/TDD/SS/0017 Rev 01		



EASTERN GREEN LINK (EGL) 3 & EGL 4 TYPICAL HVAC CONSTRUCTION SWATHES SHEET 1 OF 1

Temporary fence EGL nd Temporary ain drain	Legend Well-compacted thermally suitable backfill Well-compacted thermally suitable backfill Splayed Excavation) Thermally suitable cable surround (e.g. Cement-bound sand) Thermally suitable cable surround (e.g. Cement-bound sand, Splayed Excavation) Cable protection tiles Cable warning tape Subsoil stockpile Subsoil stockpile
Topsoil stockpile	Haul Road/ Temporary Footway Haul Road/ Temporary Footway
ALE BAR (METRES)	EASTERN GREEN LINK (EGL) 3 & EGL 4 TYPICAL HVAC CONSTRUCTION SWATHES SHEET 1 OF 1 nationalgrid Application Number EN0210003 National Grid Drawing Reference
12.5m 25m	National Grid Drawing Reference S42/TDD/SS/0002 Scale Sheet Size Sheet Issue AS SHOWN A1 SHEET 1 OF 1 1ST

Notes





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	7		Ther	mally suitable cable	e surrou	Ind	
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	-		Well (Spla	 -compacted therma ayed excavation) 	ny suita	adie ba	CKTIII
			Ther	mally suitable cable	surrou	Ind	
Legend Trench Splayed excavation Concrete Temporary Haul Road Well-compacted thermally suitable backfill (Trench) Thermally suitable cable surround (Splayed excavation) HVDC Cable HVDC Cable Excert cable protection tiles							
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			Cab	e protection tiles			
			— Cabl	e Warning Tape			
			Bond	ding Cable			
			Tele	communication Cha	umber		
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			DTS	Cables			
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5m	10m
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	S42/TDD	/SS/0005			
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EASTERN GREEN LINK (EGL) 3 & EGL 4

Notes

For statutory consultation purposes only.

Well-compacted thermally suitable backfill Cable Warning Tape (min 2.5mm thick) Cable protection tiles. Over full trench width Distributed Temperature Sensing (DTS) cable in carrier tube HVAC Cable HVAC cable duct (typically 250/237mm OD/ID) Thermally suitable cable surround (e.g. Cement Bound Sand (CBS))

Legend

Scale

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Sheet Size

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Sheet

SHEET 1 OF 1 1ST

		Well Ther Cem Prote	-compacted thermal mally suitable cable ent Bound Sand (Cl ective duct block (e.	lly suita surrou BS)) g. Cone	able bad Ind (e.ç crete)	ckfill g.
	Haul Road					
	Existing Road					
-		High	Voltage Alternating	Currer	nt (HVA	AC) Cable
		HVA	C Cable Duct			
		HVA prote Cabl	C Cable Crossing D ective duct block e warning tape	ouct sur	rounde	ed by
E		Exist	ting Hedge			
\bigotimes		Exist	ing Ground			
		Exist	ing Carriageway Bu	iild-up		
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Applicat	tion Nu	imber	EN0210003			
Nationa	I Grid [Drawing	Reference	00		
			S42/TDD/SS/00	08		



Drive Site

- 1. Drilling Rig 2. Control Cabin
- 3. Launch Pit 4. Excavator
- 5. High Pressure Mud Pump
- 6. Slurry Separation Plant 7. Cuttings
- 8. Generator 9. Slurry Storage
- 10. Pipe Storage
- 11. Store

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- 12. Skips
- 13. Office & Welfare
- 14. Working space 15. Slurry Mixing Tank

EASTERN GREEN LINK (EGL) 3 & EGL 4 ORDER TYPICAL TRENCHLESS CROSSING COMPOUND - HVAC SHEET 1 OF 1

- 16. Cuttings
- 17. Drill Pipes
- 18. Spares Storage 19. Construction Equipment
- 20. Product Pipelines
- 21. Pipeline Rollers 22. Reception Pit
- 23. Slurry Treatment Plant 24. Slurry Tank
- 25. Generator
- 26. Excavator 27. Pump

Typical Trenchless Crossing Compound Scale 1:500

SCALE

	Legend	
	Hard Standing/ Gravel Surface Construction Equipment/ Area	
	Cement-bound sand cable surround	
	$\Box = \Box$ Cable Duct (Being Installed)	
	$\Box = \Box$ Cable Duct (To Be Installed)	
	Gate Comms Cable/Duct	
	Alternative Trenchless Crossing Drive Site	
	1ST MAY 25 1ST ISSUE OM RM LP	
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	EASTERN GREEN LINK (EGL) 3 & EGL 4 TYPICAL TRENCHLESS CROSSING	
	SHEET 1 OF 1	
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E BAR (METRES)	Application Number EN0210003 National Grid Drawing Reference	_
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0	1.25m	2.5m
1:25		
0	2.5m	5m
1:50		
0	7.5m	15m
1:150		

The Great Grid Upgrade

Eastern Green Link 3 (EGL 3) and Eastern Green Link 4 (EGL 4)

02. Typical HVDC Construction and Design Drawings

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02. Typical HVDC Construction and Design Drawings

Drawing Category	Plan Title	Drawing Reference
English Onshore Scheme Construction and Des	ign Drawings	
Typical HVDC Construction and Design Drawings	Typical HVDC Construction Swathes	S42/TDD/SS/0001 Rev 01
	Typical HVDC Joint Bay	S42/TDD/SS/0003 Rev 01
	Typical HVDC Transition Joint Bay	S42/TDD/SS/0004 Rev 01
	Typical HVDC Road Ducted Crossing	S42/TDD/SS/0006 Rev 01
	Typical HVDC Watercourse Ducted Crossing	S42/TDD/SS/0007 Rev 01
	Typical HVDC Trenchless Crossing Compound	S42/TDD/SS/0016 Rev 01





EASTERN GREEN LINK (EGL) 3 & EGL 4 TYPICAL HVDC CONSTRUCTION SWATHES SHEET 1 OF 1

Typical Construction Swathe - Two Trenches (Combined Corridor) Scale 1:200

SCALE B 1:25 1:100 🗌 1:200

		_		lend				
				Well	-compacted th	ermally suita	able bad	ckfill
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			_	— Cab — Cab	le protection til le warning tap	e		
				Tops	soil stockpile soil stockpile			
				Exis	ting Ground I Road/ Tempo	orary Footwa	у	
		-						
			1ST Issue <u>Title</u>	MAY 25 Date EASTEI TYPICAL	1ST ISSU Remarks RN GREEN LI HVDC CONST SHEET	NK (EGL) 3 TRUCTION S 1 OF 1	RM Checked & EGL	LP Approved 4 IES
(METRES)	5m	2.5m		r	nationa	al gri o		
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6m		12m	Scale	. אום טוס משווס אום אום אום אום אום אום אום אום אום אום אום אום אום אום	S42/TDD/	SS/0001	Issue	
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EASTERN GREEN LINK (EGL) 3 & EGL 4 ORDER HVDC TYPICAL JOINT BAY SHEET 1 OF 1

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		1ST Issue	MAY 25	1ST ISSUE Remarks	OM Drawn	RM Checked	LP
			Cab	le protection tiles			
			(Spi	rmally suitable cab ayed excavation)	e surrou	Ind	
			The (Tre) (Tre) (Tre)	rmally suitable cab nch) I-compacted therm	e surrou ally suita	ind able bac	ckfill
			Wel	porary Haul Road l-compacted therm nch)	ally suita	able bad	ckfill
<u>· · · · · · · · · · · · · · · · · · · </u>		. 4.	Č Con	crete			
			Trer	nch nyed excavation			
		Leç	gend				
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Notes

EASTERN GREEN LINK (EGL) 3 & EGL 4 TYPICAL HVDC TRANSITION JOINT BAY ARRANGEMENT - COMBINED OPTION SHEET 1 OF 1





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Scale 1:100

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tion	
Marine HDD	
	Legend
	Cable protection tiles HVDC cable
	HVDC marine cable
Cable encoing based on 20m	Cable warning tape HVDC cable joint
separation. Spacing may change at later stage of design	
	Splayed excavation
B	
	Well-compacted thermally suitable backfill
	Thermally suitable cable surround
	Well-compacted thermally suitable backfill
	Thermally suitable cable surround
	Existing ground
	Armour clamp
	Horizontal Directional Drill (HDD)
	IST MAY 25 1ST ISSUE OM RM LP
	Issue Date Remarks Drawn Checked Approved
Marine HDD	EASTERN GREEN LINK (EGL) 3 & EGL 4
	TYPICAL HVDC TRANSITION JOINT BAY ARRANGEMENT - COMBINED OPTION
	SHEET 1 OF 1
	nationalarid
ALE BAR (METRES)	Application Number EN0210003
2.5m 5m	National Grid Drawing Reference S42/TDD/SS/0004
	Scale Sheet Size Sheet Issue AS SHOWN A1 SHEET 1 OF 1 1ST

1:100 🗌







Section B-B - Typical Ducted Road Crossing Scale 1:50

National Grid Drawing Reference

Sheet Size

A1

<u>Scale</u>

AS SHOWN

S42/TDD/SS/0006

Sheet

Issue

SHEET 1 OF 1 1ST

Notes

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backfill Cable Warning Tape (min 2.5mm thick) Cable protection tiles. Over full trench width Distributed Temperature Sensing (DTS) cable in carrier tube HVDC Cable HVDC cable duct (typically 250/237mm OD/ID) Thermally suitable cable

EASTERN GREEN LINK (EGL) 3 & EGL 4 TYPICAL DUCTED WATERCOURSE CROSSING - HVDC SHEET 1 OF 1

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	Well-compacted thermally suitable backfill Thermally suitable cable surround (e.g. Cement Bound Sand (CBS)) Protective Duct Block (e.g. Concrete) Haul Road									
	Haul	Road								
	Tem	porary culvert for h	naul roac	l crossi	ng					
_	High	Voltage Direct Cu	rrent (H)	/DC) C	able					
	 HVDC Cable Duct HVDC Cable Duct surrounded in protective duct block Cable warning tape 									
		e protection tiles								
	Existing Ground									
1		ling watercourse								
1	- — Geof	extile Liner								
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A1 SHEET 1 OF 1 1ST

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Legend

Notes

If alternative trenchless crossingmethods are required, a larger drive site may be required. An indicative area for comparison has been shown.

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EASTERN GREEN LINK (EGL) 3 & EGL 4 TYPICAL TRENCHLESS CROSSING COMPOUND - HVDC SHEET 1 OF 1

Drive Site

- Drilling Rig
 Control Cabin
- 3. Launch Pit 4. Excavator
- 5. High Pressure Mud Pump
- 6. Slurry Separation Plant 7. Cuttings
- 8. Generator
- 9. Slurry Storage 10. Pipe Storage
- 11. Store
- 12. Skips 13. Office & Welfare
- 14. Working space 15. Slurry Mixing Tank

Typical Trenchless Crossing Compound Scale 1:250

The Great Grid Upgrade

Eastern Green Link 3 (EGL 3) and Eastern Green Link 4 (EGL 4)

03. General Construction and Design Drawings

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03. General Construction and Design Drawings

Drawing Category	Plan Title	Drawing Reference						
English Onshore Scheme Construction and Design Drawings								
General Construction and Design Drawings	Typical Cable Construction Compound	S42/TDD/SS/0014 Rev 01						
	Typical Circular Culvert	S42/TDD/SS/0011 Rev 01						
	Typical Bridge Crossing	S42/TDD/SS/0012 Rev 01						
	Typical Box Culvert	S42/TDD/SS/0010 Rev 01						
	Typical Bellmouth and Visibility Splay	S42/TDD/SS/0013 Rev 01						

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EASTERN GREEN LINK (EGL) 3 & EGL 4 TYPICAL CABLE CONSTRUCTION COMPOUND SHEET 1 OF 1

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1:50

1:100 |

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Legend Well-compacted fill Circular culvert Haul road Sand bag Existing ground Existing watercourse Easement fencing — — Geotextile liner OM RM LP 1ST MAY 25 **1ST ISSUE** Drawn Checked Approved Issue Date Remarks Title EASTERN GREEN LINK (EGL) 3 & EGL 4 TYPICAL CIRCULAR CULVERT SHEET 1 OF 1 national**grid** Application Number EN0210003 National Grid Drawing Reference S42/TDD/SS/0011 <u>Scale</u> Sheet Size Sheet Issue A1 SHEET 1 OF 1 1ST AS SHOWN

Notes

Typical Box Culvert Cross Section NTS

Typical Box Culvert Long Section

EASTERN GREEN LINK (EGL) 3 & EGL 4 TYPICAL BOX CULVERT SHEET 1 OF 1

Typical Box Culvert Headwall Long Section

EASTERN GREEN LINK (EGL) 3 & EGL 4 TYPICAL BELLMOUTH SHEET 1 OF 1

				 	Subsoil stockpile	 	
					Cable trench		
Approx. 76m	۳ ۳						
					Cable trench		
	XXXX				. , , , ,		
					Subsoil stockpile		
					Subsoil stockpile		
					Subsoil stockpile		

